



# TEN-YEAR NETWORK DEVELOPMENT PLAN

# 2020

# ANNEX A – PROJECT DETAILS

# PCI 5.1.1 Physical Reverse Flow at Moffat interconnection point (IE/UK)

TRA-A-829		Project			Pipeline includin	g CS 💦 🔊 🛚	Non-FID
Update Date			22/09/2020			A	dvanced
Description	Physical Reverse Flow at the I Man and Northern Ireland (o		point, which is currently uni-direct pacity is 139 GWH/d.	ional, s	upporting forward flo	ow only from UK to	) IE, the Isle of
PRJ Code - PRJ Name	PRJ-G-001 - Physical Reverse	Flow at Moffat intercor	nnection point (IE/UK)				
Capacity Increments Varia	nt For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Moffat		Gas Networks	Ireland	2022	IE	Y-UKm	139.00 GWh/d
Sponsors		Gen	eral Information		NDP and	d PCI Information	
Gas Networks Ireland	100%	Promoter	Gas Networks Ireland	Part	of NDP	es (GNI, Network D	evelopment Plan
		Operator	Gas Networks Ireland				2017)
		Host Country	Ireland	NDP	Number		PCI 5.1.1
		Status	Planned	NDP	Release Date		15/12/2017

Website

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NDP Website

Currently PCI

Priority Corridor(s)

<u>Project's URL</u>

NDP URL

No

NSIW

Current TYNDP : T	<b>TYNDP 202</b>	20 - Anne	ex A
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Schedule	Start Date	End Date
Pre-Feasibility		11/2018
Feasibility	06/2017	11/2018
FEED	06/2020	12/2020
Permitting	01/2021	12/2021
Supply Contracts		06/2021
FID		12/2021
Construction	01/2022	12/2022
Commissioning	2022	2022
Grant Obtention Date	14/03/2017	14/03/2017

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Interconnector 2		750	194	29	0
	Total		194	29	
	Fulfilled Criteria				
Specific Criteria Fulfilled Specific Criteria Fulfilled Com	Competition, inter alia through diversification of supply sources, sup lifting the isolation of at least one Member State and reducing energ of Supply, inter alia through appropriate connections and diversificat inter alia through reducing emissions, supporting intermittent renew ments	gy infrastructure bottlenecks, i tion of supply sources, supply	nteropera ing count	bility and system flex erparts and routes, So	ibility, Security ustainability,
	Delays since last TYNDP				
Delay Since Last TYNDP	Delays since last TYNDP				

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**Expected Gas Sourcing** 

Benefits

#### LNG ()

Main Driver	Market Demand
Main Driver Explanation	n
Benefit Description	The PCI of which this action is an element would benefit the operators of supply sources in Ireland by facilitating access to the UK and continental markets. In particular the progression of PCI 5.1.1 would be seen as a key enabler for PCI 5.3 Shannon LNG Terminal, by facilitating access to the UK market. This would help Ireland's security of supply position in terms of the N-1 standard.

	CBCA	CBCA Financial Assistance		
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
	not	Grants for studies	Yes	
Submissin Date		Grants for studies amount	Mln EUR 0.9	
Decision Date		Grants for works	No	
Website		Grants for works amount	Mln EUR 0.0	
Countries Affected		Intention to apply for CEF		
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		

# Moffat Physical Reverse Flow

TRA-N-1064	Project	Pipeline including CS	Non-FID
Update Date	22/11/2019		Non-Advanced
Description	Physical Reverse Flow at the Moffat interconnection point, which is currently uni-di Man and Northern Ireland (onshore). The planned capacity is 139GWH/d. The scope for this project from the National Grid perspective is limited to modifica any other modifications to National Grid infrastructure, in particular no additional	itions to the receiving AGI at Moffat. There	
PRJ Code - PRJ Name	PRJ-G-001 - Physical Reverse Flow at Moffat interconnection point (IE/UK)		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Moffat	National Grid Gas plc	2020	Y-UKm	UK	139.00 GWh/d

Sponsors		Gen	eral Information	Ν	DP and PCI Information
GNI (UK) Limited	100%	Promoter Operator Host Country Status Website	National Grid Gas plc National Grid Gas plc United Kingdom Planned	Part of NDP NDP Number NDP Release Date NDP Website	No ((4) there is no obligation at national level for such a project to be part of the NDP)
				Currently PCI Priority Corridor(s)	No NSIW

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				3
Schedule	Start Date	End Date	Third-Party Access Re	egime
Pre-Feasibility			Considered TPA Regime	Regulate
easibility	06/2017	11/2018	Considered Tariff Regime	Regulate
EED	06/2019	12/2019	Applied for Exemption	N
Permitting	01/2020	12/2020	Exemption Granted	N
Supply Contracts				
FID		12/2020	Exemption in entry direction	100.009
Construction	01/2021	12/2021	Exemption in exit direction	0.009
Commissioning	2020	2020		
Grant Obtention Date	14/03/2017	14/03/2017		
			Fulfilled Criteria	
Specific Criteria Fulf	niiea		ough diversification of supply sources, supplying counterparts and routes, Security of Supply, in and diversification of supply sources, supplying counterparts and routes	ter alia through

Specific Criteria Fulfilled Comments

	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	Results and recommendations from the feasibility study will be communicated to stakeholders and industry in Q1 2019. Following this, the project will progress into FEED stage. The FEED commencement date has been adjusted by 5 months to allow for communication of Feasibility Study results to take place. This adjustment will be made feasible by building on the initial conceptual design work undertaken as part of the Feasibility Study.

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	Benefits
Main Driver	Others
	The PCI of which this action is an element would benefit the UK through improvements in Security of Supply and would also benefit the operators of supply sources in Ireland by facilitating access to the UK and continental markets. In particular the progression of PCI 5.1.1 would be seen as a key enabler for PCI 5.3 Shannon LNG Terminal, by facilitating access to the UK market. This would help Ireland's security of supply position in terms of the N-1 standard
Benefit Description	

Benefit Description

	CBCA	Finan	icial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturization Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer		Comments	
Additional Comments		General Comments	

# Bidirectional Austrian-Czech Interconnector (BACI)

TRA-A-21	Project	Pipeline including CS	Non-FID
Update Date	22/11/2019		Advanced
Description	The Bidirectional Austrian Czech Interconnection (BACI) will be a new infrastructur connected to the existing Czech transmission system via CS Břeclav (NET4GAS s.r. CONNECT AUSTRIA GmbH). The project BACI will enable capacity transmission for facilitate better market integration between Austria and the Czech Republic. The p Austrian and also Polish system by diversification of gas supply routes and by con	o.) and to the Austrian transmission system r the first time between these two EU Mem project BACI will also increase the overall fle	via Baumgarten (GAS ber States and it will exibility of the Czech,
PRJ Code - PRJ Name	PRJ-G-002 - Bidirectional Austrian - Czech Interconnection (BACI)		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Gas Connect Austria GmbH	2024	AT	CZ	201.42 GWh/d
Poštorná / Reintal	Gas Connect Austria GmbH	2024	CZ	AT	201.42 GWh/d

Sponsors			General Information	NDP and I	PCI Information
Pipeline on Austrian territory		Promoter	GAS CONNECT AUSTRIA GmbH	Part of NDP	Yes (NDP 2019 - 2028)
GAS CONNECT AUSTRIA GmbH	100%	Operator	Gas Connect Austria GmbH	NDP Number	GCA 2015/01a
Pipeline on Czech territory		Host Country	Austria	NDP Release Date	11/02/2019
NET4GAS, s.r.o	100%	Status	Planned	NDP Website	NDP URL
	10070	Website	<u>Project's URL</u>	Currently PCI	No
				Priority Corridor(s)	NSIE

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Schedule	Start Date	End Date
Pre-Feasibility		01/2014
Feasibility		
FEED		
Permitting	04/2021	09/2021
Supply Contracts		11/2021
FID		07/2021
Construction	01/2022	05/2024
Commissioning	2024	2024
Grant Obtention Date	30/04/2015	30/04/2015

Pipelines and Compressor Stations						
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Austrian Side		The technical load factor of the pipeline is confidential and must not be published. Conversion from Nm <sup>3</sup> (0°) to kwh with GCV of 11.19 AT side is TRA-N-021 and CZ side is TRA-N-133 Electric driven compressor		49		0
Czech Side		Conversion from Nm <sup>3</sup> (0°) to kwh with GCV of 11.19 AT side is TRA-N-021 and CZ side is TRA-N-133	800	12		0
	Total			61		

#### **Fulfilled Criteria**

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

Delays since last TYNDP

#### Delay Since Last TYNDP

**Delay Explanation** 

According to the footnote of the 3rd PCI list the implementation of BACI as a PCI is conditional upon the outcome of the pilot project 'Trading Regional Upgrade" (TRU). Currently the one-year long pilot phase of TRU service is ongoing. The commissioning year (and the entire time-schedule was changed to 2024.

	Benefits
Main Driver	Others
Main Driver Explanation	Market Integration
Benefit Description	The project BACI will ensure transmission capacity between the two member states and will facilitate better market integration and security of gas supply also for adjacent countries. It contributes to the diversification of gas supply and the increased transportation opportunities to and from countries like Hungary, Poland, Germany, Italy, France, Slovenia, Croatia and Slovakia and access to new and existing trading markets. The project BACI will enhance the market development due to access to underground gas storages both on the Austrian and Czech side and therefore will enhance the market development by providing peak regulation and the flexibility of gas flow. BACI is a key element in creating a well-functioning internal market in the CEE region due to access to existing and new import infrastructures such as a new LNG terminal in Poland and Croatia, Nord Stream and unconventional gas sources. With BACI the region would become less vulnerable in case of supply disruption.

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
	not	Grants for studies	Yes
Submissin Date		Grants for studies amount	Mln EUR 0.1
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

No

NSIE

# Bidirectional Austrian Czech Interconnection (BACI)

TRA-A-133	Project	Pipeline including CS	Non-FID
Update Date	22/11/2019		Advanced
Description	The transmission system operators of the Czech Republic (NET4GAS, s.r.o.) and project Bidirectional Austrian Czech Interconnection (BACI). The project BACI ai Republic and Austria. The pipeline is planned to be connected at CS Břeclav (N to the existing transmission systems of both countries.	ims at establishing the first direct connection b	between the Czech
PRJ Code - PRJ Name	PRJ-G-002 - Bidirectional Austrian - Czech Interconnection (BACI)		

Capacity Increments Variant For Modellin	g						
Point		Operator		Year	From Gas System	To Gas System	Capacity
		NET4GAS, s.r.o.		2024	AT	CZ	201.42 GWh/d
Dožtovné ( Dointol					Comment: El	ntry from AT to CZ	7
Poštorná / Reintal		NET4GAS, s.r.o.		2024	CZ	AT	201.42 GWh/d
					Comment:	Exit from CZ to A1	-
Sponsors		General I	Information		NDP and	PCI Information	
Austria		Promoter	NET4GAS, s.r.c	. Part o	f NDP Y	es (CZ NDP 2019-	2028 (approved))
GAS CONNECT AUSTRIA GmbH	100%	Operator	NET4GAS, s.r.c	. NDP M	Number		TRA-N-133
Czech Republic		Host Country	Czechi	a NDP F	Release Date		31/10/2018
NET/GAS sro	100%	Status	Planne	d NDP V	Vebsite		<u>NDP URL</u>

 NET4GAS, s.r.o.
 100%
 Status
 Project's URL
 Currently PCI

 Website
 Priority Corridor(s)

Irrent TYNDP : TY	NDP 2020 - Ani	nex A	
Schedule	Start Date	End Date	Third-Party Acces
Pre-Feasibility		05/2009	Considered TPA Regime
easibility	03/2012	02/2014	Considered Tariff Regime
ED	03/2012	10/2020	Applied for Exemption
ermitting	05/2015	10/2021	Exemption Granted
upply Contracts		11/2021	
D			Exemption in entry direction
onstruction	01/2023	04/2024	Exemption in exit direction
Commissioning	2024	2024	
nt Obtention e	30/04/2015	30/04/2015	

Pipeline Section	Pipeline Comment	Diame (mr		Compressor Power (MW)	Comissioning Year
Břeclav (CZ) - Poštorná/Reintal (CZ//	AT) CZ side	80	12		2024
	Total		12		
	Fulfilled Criteria				
		supplying counterparts and ro	utes, Marke	t Integration, inter ali	a through
	Competition, inter alia through diversification of supply sources, lifting the isolation of at least one Member State and reducing er of Supply, inter alia through appropriate connections and diversi inter alia through reducing emissions, supporting intermittent re	nergy infrastructure bottlenec fication of supply sources, sup	s, interoper olying coun	ability and system fle terparts and routes, S	xibility, Security Sustainability,
	Competition, inter alia through diversification of supply sources, lifting the isolation of at least one Member State and reducing er of Supply, inter alia through appropriate connections and diversi	nergy infrastructure bottlenec fication of supply sources, sup newable generation and enha	s, interoper olying coun	ability and system fle terparts and routes, S	xibility, Security Sustainability,
	Competition, inter alia through diversification of supply sources, lifting the isolation of at least one Member State and reducing er of Supply, inter alia through appropriate connections and diversi inter alia through reducing emissions, supporting intermittent re	nergy infrastructure bottlenec fication of supply sources, sup newable generation and enha	s, interoper olying coun	ability and system fle terparts and routes, S	xibility, Security Sustainability,

**Expected Gas Sourcing** 

#### Norway, Russia

	Benefits				
Main Driver	Others				
Main Driver Explanation	Competition, Market Integration				
Benefit Description	The aim of BACI is to bring competition into the Austrian gas market which could help to decrease gas prices in Austria (and connected markets like Italy In the last couple of months, the spreads between the German hub (i.e. Gaspool) and the Austrian VP have been above 2 €/MWh. For the Austrian VP/Czech market, the recent spreads are around 1.5 €/MWh, which fully justifies the need to further market integration between the Czech Republic and Austria.				
	Barriers				
Barrier Type	Description				
Permit Granting	Permitting obstacles				
Market	Shippers mainly buy transmission capacity in monthly and daily auctions and are not interested in booking long-term capacity which traditionally covers investment in infrastructure.				
Regulatory	Low rate of return				
Regulatory	Lack of proper transposition of EU regulation				

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
	not	Grants for studies	Yes
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	Yes
Additional Comments		Comments	TEN-E, 92 942 EUR
		General Comments	

# Interconnection Croatia/Slovenia (Lučko - Zabok - Jezerišće - Sotla)

TRA-N-86	Project Pipeline including CS			J CS	Non-FID			
Update Date		21/09/2020				A	Advanced	
Description	Rogatec, a new gas pipeline s Slovenian gas transmission sy	New pipeline which will upgrade the existing interconnection Croatia/Slovenia. Along with the existing interconnection Karlova Rogatec, a new gas pipeline system has been planned which would significantly increase the capacity of the interconnection of Slovenian gas transmission systems in this direction. Considering almost all existing and new supply directions in the surroundi Croatian storage potentials this opens significant transit potentials in both directions. Along this transit route, it is planned to u to 5 bcm/y.						
PRJ Code - PRJ Name	PRJ-G-003 - Interconnection S	PRJ-G-003 - Interconnection Slovenia-Croatia (Gas pipeline Lučko-Zabok-Rogatec)						
Capacity Increments Varia	ant For Modelling							
Point		Operator		Year	From Gas System	To Gas System	Capacity	
		Plinacro Ltd		2021	SI	HR	40.80 GWh/d	
Rogatec		Plinacro Ltd		2023	HR	SI	162.00 GWh/d	
		Plinacro Ltd		2023	SI	HR	121.20 GWh/d	
Sponsors		General Information			NDP and	PCI Information		
Plinacro	100%	Promoter	Plinacro Ltd	Part o	of NDP		Yes (2018-2027)	
		Operator	Plinacro Ltd	NDP	Number		1.9, 1.10, 1.11	
		Host Country	Croatia	NDP	Release Date	15/12/20		
		Status	Planned	NDP	Website	<u>NDP UR</u>		
		Website	Project's URL Currently PCI		Yes (6.26.1.1 (2020)			
				Priori	ty Corridor(s)			

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Schedule	Start Date	End Date	Third-Party Access Regime	е
Pre-Feasibility			Considered TPA Regime	Re
easibility	09/2014	12/2014	Considered Tariff Regime	Reg
EED	01/2020	01/2020	Applied for Exemption	
Permitting	01/2020	01/2020	Exemption Granted	
Supply Contracts		01/2020		
FID		01/2020	Exemption in entry direction	
Construction	01/2020	01/2023	Exemption in exit direction	
Commissioning	2021	2023		
Grant Obtention Date	01/04/2020	01/04/2020		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
BS Rakitje-Zabok		700	26		2023
Jezerisce-Sotla		700	8		2023
Lučko-BS Rakitje		700	10		2021
Zabok-Jezerisce		700	25		2023
	Total		69		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	The project increases the integration of the Croatian gas market with the European gas market, the current interconnection capacity is limited to 1.5 bcm/y. The pipeline will have the reverse flow, so gas can flow from LNG Krk or IAP to Slovenia and further to Central Europe expected to result in reduced end-user energy prices providing the security of supply increasing the capacity along the route providing enhanced access to Baumgarten and the Italian gas market providing an additional import of gas achievement of benefits of the open gas market This project is expected to contribute to the provision of gas supply to potential customers in the Central Europe countries
	Delays since last TYNDP

Delay Since Last TYNDP

Delay Explanation

#### **Expected Gas Sourcing**

#### Caspian Region, Russia, LNG (HR,QA), IAP project, Baumgarten

	Benefits
Main Driver	Market Demand
Main Driver Explanation	The current capacity is limited; the section from Lučko to Rogatec up to 1.5 bcm/y. Increasing capacity by 5 bcm opens the possibility for importing more gas from the Baumgarten. In addition, the source of the gas, in the near future) is going to be the gas from the LNG solution on the island of Krk as well as from the Ionian – Adriatic Pipeline toward Slovenia and the neighbouring countries. In this case the current pipeline capacity would not be sufficient; therefore it is envisaged to be increased. By doubling the pipeline, it is possible to use both the existing and future Croatian UGSs. The construction of this interconnection is vital for the security of supply of both the Croatian market and other markets in the SE region.
Benefit Description	It will be significantly increase the capacity of the interconnection of the Croatian and Slovenian gas transmission systems in both directions. It will increase the capacity along the route, provide enhanced access to Baumgarten and Italien gas market. The most important impacts and benefits of this project: 1. It provides security of supply for Croatia (N-1 criterion has not been met!) and a reverse flow (from Croatia to Slovenia) 2. It provides access to the gas markets of Austria and Italy via the Slovenian system 3. It provides import and significant transit of gas from the direction of Italy and Austria to CEE and SEE countries (Hungary, Bosnia and Herzegovina, Serbia) 4. It provides significant transit of gas from LNG terminal, Ionian-Adriatic Pipeline or other sources towards Slovenia, Austria and Italy as well as the countries in their surrounding 5. It facilitates market integration
	Barriers
Barrier Type	Description
Financing	Availability of funds and associated conditions

Irrent TYNDP : TYNDP 2020 - Annex A					Page 16 of 773
		Intergovernmer	ntal Agreements		
Agreement		Agreement Description		Is Signed A	greement Signature Date
Letter of Intent		Signed between Plinacro and Plinovodi		Yes	22/05/2014
Memorandum of Understanding		Signed among Plinacro, Plinovodi and Gas Co	Yes	28/12/2014	
		CBCA		Financial Assistance	
Decision		have not submitted an investment request yet, have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for Cl	EF and we have received a decision
		not	Grants for studies		Yes
Submissin Date			Grants for studies amount		Mln EUR 0.5
Decision Date			Grants for works		No
Website			Grants for works amount		Mln EUR 0.0
Countries Affected			Intention to apply for CEF		No decision yet taken
Countries Net Cost Bearer			Other Financial Assistance		No
Additional Comments			Comments		

General Comments

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# Upgrade of Rogatec interconnection (M1A/1 Interconnection Rogatec)

TRA-N-390	Project	Pipeline including CS	Non-FID				
Update Date	13/02/2020		Advanced				
Description	Adjustment of the operating parameters of the transmission system of the Croatian TSO, increasing the transmission capacity and e bidirectional operation in the frame of the bidirectional gas route Austria - Slovenia - Croatia.						
	The project is a part of the PCI 6.26 Cluster Croatia - Slovenia - Austria at Rogate	c.					

capacity increments va				
Point	Operator Yea	From Gas System	To Gas System	Capacity
	Plinovodi d.o.o. 202	HR	SI	40.80 GWh/d
Rogatec	Plinovodi d.o.o. 2023	B HR	SI	121.20 GWh/d
	Plinovodi d.o.o. 2023	SI SI	HR	162.00 GWh/d

Sponsors			General Information	NDP and PCI Information		
Plinovodi	100%	Promoter	Plinovodi d.o.o.	Part of NDP	Yes (TYNDP for the period 2019-2028)	
		Operator	Plinovodi d.o.o.	NDP Number	C12	
		Host Country	Slovenia	NDP Release Date	26/11/2018	
		Status	Planned	NDP Website	<u>NDP URL</u>	
		Website	Project's URL	Currently PCI	Yes (6.26.6 (2020))	
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		01/2015
Feasibility	04/2015	05/2015
FEED	07/2020	07/2022
Permitting	07/2021	12/2022
Supply Contracts		12/2023
FID		09/2021
Construction	07/2022	12/2023
Commissioning	2021	2023
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Upgrade of Rogatec interconnectior	on The length is 3.8 km.		4		0
	Total		4		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying cou appropriate connections and diversification of supply sources, supplying count		s, Security	y of Supply, inter alia	through
Specific Criteria Fulfilled Comments	The project will provide security of supply for Croatia and Slovenia and a rever- the gas markets of Austria and Italy via the Slovenian system. It will provide im contributing to the security of supply and benefits of the open gas market.				

Expected Gas Sourcing

Caspian Region, Russia, LNG (HR)

		Benefits
Main Driver	Market Demand	
Main Driver Explan	ation Also essential contribution to Security of supply.	
Benefit Description		

	CBCA	Fina	ancial Assistance
ecision abmissin Date ecision Date ebsite ountries Affected ountries Net Cost Bearer aditional Comments	CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	Fina Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF Other Financial Assistance Comments General Comments	ancial Assistance (3) No, we have not applied for CEF No Mln EUR 0.0 No Mln EUR 0.0 No decision yet taken No

Generated by ENTSOG PDWS on 07/10/2020 03:33:04 PM

# LNG Evacuation Pipeline Kozarac-Slobodnica

TRA-N-1058	Project	Pipeline including CS	Non-FID
Update Date	21/09/2020		Advanced
Description	Gas pipeline Kozarac - Slobodnica jointly with gas pipeline sytem Zlobin - Bo Main Evacuation Pipeline connecting LNG from the LNG solution on the islar is a continuation of the existing Hungary – Croatia interconnection (gas pipe will be connected to the future Ionian Adriatic Pipeline (IAP) will be connected to the future LNG solution in Omišalj It will be the "backbone" of the Croatian gas system.	nd of Krk with Central Eastern European counties.	The pipeline system
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines tow	ards Hungary and beyond	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Croatia LNG	Plinacro Ltd	2027	LNG_Tk_HR	HR	82.00 GWh/d
	Plinacro Ltd	2027	HR	HU	82.00 GWh/d
Dravaszerdahely	Plinacro Ltd	2027	HU	HR	135.85 GWh/d

Sponsors			General Information	NDP and	d PCI Information
Plinacro	100%	Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
		Operator	Plinacro Ltd	NDP Number	1.32
		Host Country	Croatia	NDP Release Date	15/12/2017
		Status	Planned	NDP Website	NDP URL
		Website	Project's URL	Currently PCI	No
				Priority Corridor(s)	NSIE

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Start Date	Start Date End Date Third-Party Access Regin	
		Considered TPA Regime
09/2015	10/2016	Considered Tariff Regime
01/2023	01/2023	Applied for Exemption
09/2014	01/2023	Exemption Granted
	01/2024	
	01/2024	Exemption in entry direction
01/2024	01/2027	Exemption in exit direction
2027	2027	
24/11/2015	24/11/2015	
	09/2015 01/2023 09/2014 01/2024 2027	09/2015 10/2016 01/2023 01/2023 09/2014 01/2023 01/2024 01/2024 01/2024 01/2027 2027 2027

Pipelines and Compressor Sta	tions	
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissioning (mm) (km) (MW) Year
Kozarac-Slobodnica		800 128 2027
	Total	128
	Fulfilled Criteria	
Specific Criteria Fulfilled Specific Criteria Fulfilled Comm	appropriate connections and diversification of supply sources, suppl emissions, supporting intermittent renewable generation and enhan	plying counterparts and routes, Security of Supply, inter alia through ying counterparts and routes, Sustainability, inter alia through reducing cing deployment of renewable gas
	Delays since last TYNDP	
Delay Since Last TYNDP		
Delay Explanation	Project depend on LNG project	
	Expected Gas Sourcing	
Caspian Region, LNG (), it will b	be gas from Croatia transport system, Croatian UGS and all import routes (	LNG and IAP)

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	Ben	efits				
Main Driver	Market Demand					
Main Driver Explanatior	This gas pipeline passes only through the territory of the Republic of Croatia. However, it has regional significance since it is the main evacuate pipeline from the LNG solution on the island of Krk towards Hungary and it is its main role. This gas pipeline increases utilisation of the interce with Hungary so it has influence on Hungary but also further on Slovakia and Ukraine. The gas pipeline shall be also significant for third count Bosnia and Herzegovina by constructing interconnection with these countries.					
Benefit Description	The project is the main gas pipeline for transport of LNG from the the Ionian-Adriatic Pipeline, towards CEE and SEE countries. At the Hungary, Slobodnica-Donji Miholjac-Dravaszerdahely, it presents the aim of which is to connect the Polish and Croatian LNG termin secure supply of CEE and SEE countries, which are heavily depend project and the announcement regarding termination of gas tran	ne same time, in addition to alrea the Croatian part of the strategi nal. The most important impacts lent on the Russian gas and jeop	ady constructed interconnection gas pipeline with ic transregional gas pipeline connection Adriatic-Baltic and benefits of this project: 1. It provides viable and			
	previously mentioned threats fail to occur) and thereby competiti					
			Financial Assistance			
Decision	previously mentioned threats fail to occur) and thereby competiti		(1) Yes, we have applied for CEF and we have received			
	previously mentioned threats fail to occur) and thereby competitien CBCA No, we have not submitted an investment request yet,	veness and lower price	(1) Yes, we have applied for CEF and we have received decis			
Submissin Date	previously mentioned threats fail to occur) and thereby competitien CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	veness and lower price Applied for CEF	(1) Yes, we have applied for CEF and we have received decis			
Submissin Date Decision Date	previously mentioned threats fail to occur) and thereby competitien CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	veness and lower price Applied for CEF Grants for studies	(1) Yes, we have applied for CEF and we have received decis decis Mln EUR			
Submissin Date Decision Date Website	previously mentioned threats fail to occur) and thereby competitien CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	veness and lower price Applied for CEF Grants for studies Grants for studies amount	(1) Yes, we have applied for CEF and we have received decis Mln EUR			
Submissin Date Decision Date Vebsite	previously mentioned threats fail to occur) and thereby competitien CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	veness and lower price Applied for CEF Grants for studies Grants for studies amount Grants for works	(1) Yes, we have applied for CEF and we have received decis Mln EUR Mln EUR			
Submissin Date Decision Date	previously mentioned threats fail to occur) and thereby competitient <b>CBCA</b> No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	veness and lower price Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount	(1) Yes, we have applied for CEF and we have received decis MIn EUR MIn EUR No decision yet tal			
Submissin Date Decision Date Vebsite Countries Affected	previously mentioned threats fail to occur) and thereby competitient <b>CBCA</b> No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	veness and lower price Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF	Financial Assistance (1) Yes, we have applied for CEF and we have received decision Mln EUR Mln EUR No decision yet tak			

# LNG evacuation pipeline Omišalj - Zlobin (Croatia)

TRA-F-90	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	The pipeline is the connection of the LNG on the Krk island with the existing C with gas pipeline system Zlobin - Bosiljevo - Sisak-Kozarac and with gas pipelin connecting LNG from the LNG solution on the island of Krk with Central Easte Hungary – Croatia interconnection (gas pipeline Varosföld-Dravaszerdahely-D It will be the "backbone" of the Croatian gas system.	ne Kozarac-Slobodnica makes LNG Main Evacu rn European counties. The pipeline is a continua	ation Pipeline
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines towar	rds Hungary and beyond	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Croatia LNG	Plinacro Ltd	2020	LNG_Tk_HR	HR	81.51 GWh/d
Dravaszerdahely	Plinacro Ltd	2020	HR	HU	40.76 GWh/d

Sponsors			General Information	NDP and	PCI Information
Plinacro	100%	Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
		Operator	Plinacro Ltd	NDP Number	1.18
		Host Country	Croatia	NDP Release Date	15/12/2017
		Status	Planned	NDP Website	NDP URL
		Website	Project's URL	Currently PCI	Yes (6.5.1 (2020))
				Priority Corridor(s)	

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Start Date	End Date	Third-Party Access Regime	ne
		Considered TPA Regime	Reg
09/2015	10/2016	Considered Tariff Regime	Reg
10/2015	03/2017	Applied for Exemption	
07/2009	01/2019	Exemption Granted	
	01/2019		
	06/2019	Exemption in entry direction	
06/2019	12/2020	Exemption in exit direction	
2020	2020		
	09/2015 10/2015 07/2009 06/2019	09/2015 10/2016 10/2015 03/2017 07/2009 01/2019 01/2019 06/2019 06/2019 12/2020	O9/2015         10/2016         Considered TPA Regime           10/2015         03/2017         Considered Tariff Regime           07/2009         01/2019         Exemption Granted           06/2019         12/2020         Exemption in entry direction           06/2019         12/2020         Exemption in exit direction

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Omišalj-Zlobin		800	18		2020
	Total		18		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying lifting the isolation of at least one Member State and reducing energy infr of Supply, inter alia through appropriate connections and diversification of inter alia through reducing emissions, supporting intermittent renewable g	rastructure bottlenecks, ir of supply sources, supplyi	nteropera ng count	bility and system flex erparts and routes, So	ibility, Security ustainability,
Specific Criteria Fulfilled Comments	Project will connect several, in the future exceptionally important, points of transmission connector of great significance and is an integral part of the Adriatic) Gas Connection. Its purpose is linking the Polish and the Croatian all the pipelines to which it connects and the associated gas nodes) will protransmission requirements and will maximise the value of the IAP and LNC	North – South European n LNG (Liquefied Natural rovide gas transmission ir	Corridor Gas) solu n all direc	named as the North- tions. This gas pipelin tions, i.e. it will satisfy	-South (Baltic – ne (as well as y all

## LNG ()

Evportor	1-26	Source	In C
Expected		e 1 a 1 a 1 E G	
			_

		Benefits
Main Driver	Market Demand	
Main Driver Explana	ation	
Benefit Description		

	CBCA	
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CI
Submissin Date	14/10/2016	Grants for stu
Decision Date	10/04/2017	Grants for stu
Website	<u>CBCA URL</u>	Grants for wo
Countries Affected	Croatia, Hungary, Ukraine	Grants for wo
Countries Net Cost Bearer		Intention to a
Additional Comments		Other Financia
		Comments

	Financial Assistance
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Grants for studies	No
Grants for studies amount	Mln EUR 0.0
Grants for works	Yes
Grants for works amount	Mln EUR 16.4
Intention to apply for CEF	
Other Financial Assistance	No
Comments	
General Comments	

# LNG evacuation pipeline Zlobin-Bosiljevo-Sisak-Kozarac

TRA-N-75	Project	Pipeline including CS	Non-FID
Update Date	21/09/2020		Advanced
Description	Gas pipeline Zlobin - Bosiljevo - Sisak – Kozarac jointly with gas pipeline Omišalj- Evacuation Pipeline connecting LNG from the LNG solution on the island of Krk v is a continuation of the existing Hungary – Croatia interconnection (gas pipeline will be connected to the future Ionian Adriatic Pipeline (IAP) will be connected to the future LNG solution in Omišalj It will be the "backbone" of the Croatian gas system.	with Central Eastern European counties. The p	pipeline
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines towards	Hungary and beyond	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Croatia LNG	Plinacro Ltd	2027	LNG_Tk_HR	HR	27.17 GWh/d
Dravaszerdahely	Plinacro Ltd	2027	HR	HU	54.34 GWh/d

Sponsors			General Information	NDP and PC	Information
Plinacro	100%	Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
		Operator	Plinacro Ltd	NDP Number	1.19, 1.20, 1.21
		Host Country	Croatia	NDP Release Date	15/12/2017
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website	Project's URL	Currently PCI	No
				Priority Corridor(s)	NSIE

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Schedule	Start Date	End Date	Third-Party Access Regin	ne
re-Feasibility			Considered TPA Regime	Reg
easibility	09/2015	10/2016	Considered Tariff Regime	Reg
EED	06/2018	04/2019	Applied for Exemption	
Permitting	07/2009	01/2025	Exemption Granted	
Supply Contracts		01/2025		
ID		01/2025	Exemption in entry direction	
Construction	01/2025	01/2027	Exemption in exit direction	
Commissioning	2027	2027		
Grant Obtention Date	24/11/2015	24/11/2015		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Bosiljevo - Sisak		800	102	()	2027
Kozarac - Sisak		800	20		2027
Zlobin - Bosiljevo		800	58		2027
	Total		180		
	Fulfilled Criteria				
	Competition, inter alia through diversification of supply sources, supp				
Specific Criteria Fulfilled	appropriate connections and diversification of supply sources, supply emissions, supporting intermittent renewable generation and enhance	-		onity, inter alla throug	h reducing
Specific Criteria Fulfilled Specific Criteria Fulfilled Comm	emissions, supporting intermittent renewable generation and enhance	-		ninty, inter alla throug	h reducing

Delay Since Last TYNDP Delay Explanation

The preparatory work will be performed in phases, depending on the development of the LNG project,

#### **Expected Gas Sourcing**

Caspian Region, LNG (HR,QA), it will be gas from Croatia transport system, Croatian UGS and all import routes (LNG and IAP)

#### Comments about the Third-Party Access Regime

TPA regime is not defined yet, Exemption Regime possibly

	Benefits
Main Driver	Market Demand
Main Driver Explanation	This gas pipeline passes only through the territory of the Republic of Croatia. However, it has regional significance since it is the main evacuation gas pipeline from the LNG solution on the island of Krk towards Hungary and it is its main role. This gas pipeline increases utilisation of the interconnection with Hungary so it has influence on Hungary but also further on Slovakia and Ukraine. The gas pipeline shall be also significant for third countries; Serbia, Bosnia and Herzegovina by constructing interconnection with these countries.
Benefit Description	The project is the main gas pipeline for transport of LNG from the terminal on the island of Krk as well as from other possible sources, such as gas from the Ionian-Adriatic Pipeline , towards CEE and SEE countries. At the same time, in addition to already constructed interconnection gas pipeline with Hungary, Slobodnica-Donji Miholjac-Dravaszerdahely, it presents the Croatian part of the strategic transregional gas pipeline connection Adriatic-Baltic the aim of which is to connect the Polish and Croatian LNG terminal. The most important impacts and benefits of this project: 1. It provides viable and secure supply of CEE and SEE countries. 2. It provides diversification of supply (also in case the previously mentioned threats fail to occur) and thereby competitiveness and lower price.
	Barriers
Barrier Type	Description
Others	Directly connected and depening on the LNG project on the island of Krk
Financing	Availability of funds and associated conditions

	CBCA	Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	14/10/2016	Grants for studies	Yes	
Decision Date	10/04/2017	Grants for studies amount	Mln EUR 1.2	
Website	<u>CBCA URL</u>	Grants for works	Yes	
Countries Affected	Croatia, Hungary, Ukraine	Grants for works amount	Mln EUR 0.0	
Countries Net Cost Bearer		Intention to apply for CEF		
Additional Comments		Other Financial Assistance	No	
		Comments		
		General Comments		

Croatia LNG

LNG-F-82	Project		LNG Termina	l i i i i i i i i i i i i i i i i i i i	FID
Update Date	22/09/2020			Ad	dvanced
Description	The import terminal for the liquefied natural gas (LNG) will be situated in be developed in two phases - in first phase as FSRU and in second phase First phase is planned to be developed as FSRU solution, with correspond	as onshore LNG term	minal.	Croatia. The project	is planned to
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines t	owards Hungary and	d beyond		
Capacity Increments Varia	ant For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
					1 2

Comment: FSRU vessel with connecting pipeline Omišalj-Zlobin of capacity up to 2,6 bcm/y as 1st phase of the project

Sponsors		Gener	al Information	NI	DP and PCI Information
HEP d.d.	85%	Promoter Operator	LNG Hrvatska d.o.o. LNG Hrvatska d.o.o.	Part of NDP	Yes (DESETOGODISNJI PLAN RAZVOJA PLINSKOG TRANSPORTNOG SUSTAVA
Plinacro d.o.o.	15%	Host Country	Croatia		REPUBLIKE HRVATSKE 2018 2027.)
		Status	In Progress	NDP Number	LNG terminal on the island of Krk
		Website	<u>Project's URL</u>	NDP Release Date	01/11/2017
		website	<u>rrojecto one</u>	NDP Website	<u>NDP URL</u>
				Currently PCI	Yes (6.5.1 (2020))
				Priority Corridor(s)	

Schedule	Start Date	End Date
Pre-Feasibility		04/2017
Feasibility	07/2012	01/2014
FEED	03/2017	12/2017
Permitting	10/2013	04/2019
Supply Contracts		01/2019
FID		01/2019
Construction	01/2019	12/2020
Commissioning	2021	2021
Grant Obtention Date	18/12/2017	18/12/2017

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Third-Party Access Regime	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	No
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Technical Information (LNG)									
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
The import terminal for the liquefied natural gas(LNG) on the Island of Krk	Yes	1st phase	2.6	140,000	7.12	140,000	up to 2,6 bcm/y due to technical limitation of entry point into TS	2021	20

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comr	ments All specific criteria are fulfilled by this project
	Delays since last TYNDP
Delay Since Last TYNDP	None
Delay Explanation	In comparison with last TYNDP, the project is rescheduled with new beginning of operation from 1st January 2021.

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## Expected Gas Sourcing

Gas sourcing will be decided by LNG terminal capacity users, who will have the freedom to arrange gas supplies and gas origin

	Benefits						
Main Driver	Regulation SoS						
Main Driver Explanation	Importance of LNG terminal in Croatia is in possibility of providing natural gas to multiple countries in the region. Countries included: Hungary, Slovenia, Austria, Italy, Germany, Czech Republic, Slovak Republic, former Yugoslav Republic of Macedonia, Albania, Kosovo, Serbia, Montenegro, Bosnia and Herzegovina, Ukraine, Romania, and Bulgaria. Gas supply in the region is heavily dependent on one supply source and therefore LNG terminal in Croatia represents a major diversification gas supply route in the region.						
Benefit Description	Project benefits include: providing diversity of supply of natural gas, providing security of supply of natural gas, introducing the ecologically sound energy source in the region, reducing CO <sub>2</sub> emissions in the region, facilitating economic development, etc.						
	Barriers						
Barrier Type	Description						
Permit Granting	N/A						
Political	N/A						
Others	N/A						
Market	Current market interest is lower than planned. It is expected higher capacity booking in the future.						
	Intergovernmental Agreements						
Agreement	Agreement Description	Is Signed	Agreement Signature Date				
CESEC MoU	Memorandum of Understanding	Yes	10/07/2015				
The Three Seas initiative	Connecting Central and Eastern European economies and infrastructure from North to South of Europe, in order to complete the single European market.	Yes	25/08/2016				

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	09/07/2016	Grants for studies	Yes
Decision Date	12/10/2016	Grants for studies amount	Mln EUR 6.2
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Croatia, Hungary	Grants for works amount	Mln EUR 101.4
Countries Net Cost Bearer	Croatia	Intention to apply for CEF	No decision yet taken
Additional Comments		Other Financial Assistance	Yes
		Comments	At European level, funding programme IPF TA (Western Balkans Investment Framework) financed – Conceptual Solution, Feasibility Study, EIA/SIA and Conceptual Design in amount of 1 mil €
		General Comments	

LNG-N-815 Update Date		LNG terminal K	rk 2nd phase			
		Project 09/12	2/2019	LNG Te	rminal	Non-FID Advanced
Description	be developed in two phases	quefied natural gas (LNG) will be - in first phase as FSRU and in se be developed as onshore termina	cond phase as onshore LN	G terminal.	olic of Croatia. The p	roject is planned to
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG termina	l with connecting and evacuation	n pipelines towards Hunga	ry and beyond		
Capacity Increments Variant F	or Modelling					
Point		Operator		Year From Gas S	ystem To Gas Syst	tem Capacity
		LNG Hrvatska d.o.o.		2027 LNG_Tk_		109.20 GWh/d
Croatia LNG		Comment:	Onshore LNG terminal with interconnect		nual send-out capaci as 2nd phase of the pl	
Sponsors		General Info	rmation	N	DP and PCI Informa	tion
HEP d.d.	85%	Promoter	LNG Hrvatska d.o.o.			SNJI PLAN RAZVOJA
Plinacro d.o.o.	15%	Operator	LNG Hrvatska d.o.o.	Part of NDP		PORTNOG SUSTAVA ATSKE 2018 2027.)
		Host Country	Croatia	NDP Number		al on the island of Krk
		Status	Planned	NDP Release Date		01/11/2017
		Website	<u>Project's URL</u>	NDP Website		NDP URL
				Currently PCI		Yes (6.5.6 (2020))
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		04/2017
Feasibility	07/2012	01/2014
FEED	03/2016	08/2016
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2027	2027
Grant Obtention Date	27/03/2015	27/03/2015

Technical Information (LNG)										
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)			
The import terminal for the liquefied natural gas(LNG) on the Island of Krk	Yes 2nd phase	4.4 120,000	12.05	160,000	Onshore LNG terminal with a correspondent annual send-out capacity of interconnection pipeline HR-HU	2027	50			

#### **Fulfilled Criteria**

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments All specific criteria are fulfilled by this project

Delays since last TYNDP

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Delay Since Last TYNDP

Delay Explanation

In comparison with last TYNDP, the project is planned for year 2027.

Gas sourcing will be dec	ded by LNG terminal capacity users, who will have the freedom to arrange gas supplies and gas origin		
	Benefits		
Main Driver	Regulation SoS		
Main Driver Explanation	Importance of LNG terminal in Croatia is in possibility of providing natural gas to multiple countries in the region. C Austria, Italy, Germany, Czech Republic, Slovak Republic, former Yugoslav Republic of Macedonia, Albania, Kosovo, Herzegovina, Ukraine, Romania, and Bulgaria. Gas supply in the region is heavily dependent on one supply source represents a major diversification gas supply route in the region.	Serbia, Mor	ntenegro, Bosnia and
Benefit Description	Project benefits include: providing diversity of supply of natural gas, providing security of supply of natural gas, int source in the region, reducing CO <sub>2</sub> emissions in the region, facilitating economic development, etc.	roducing the	ecologically sound energy
	Barriers		
Barrier Type	Description		
Permit Granting	N/A		
Political	N/A		
Others	N/A		
Market	Current market interest is lower than planned. It is expected higher capacity booking in the future.		
	Intergovernmental Agreements		
Agreement	Agreement Description	Is Signed	Agreement Signature Da
CESEC MoU	Memorandum of Understanding	Yes	10/07/2015
The Three Seas initiative	Connecting Central and Eastern European economies and infrastructure from North to South of Europe, in order to complete the single European market.	Yes	25/08/2016

	СВСА	-	Financial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturia in Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	Yes
Countries Net Cost Bearer Additional Comments		Comments	At European level, funding programme IPF TA (Western Balkans Investment Framework) financed – Conceptual Solution, Feasibility Study, EIA/SIA and Conceptual Design in amount of 1 mil €
		General Comments	

# Poland - Slovakia Gas Interconnection (PL section)

TRA-F-275	Project	Pipeline including CS	FID
Update Date	22/06/2020		Advanced
Description	The main goal of the project is to create an important part of the North-South missing interconnection between the transmission systems in Poland and Slova Europe through the diversification of supply sources and routes, as well as inte functionality. The project consists of Poland-Slovakia Interconnector and releva functionality of the Interconnection.	akia and, thus, increase the security of gas sup gration of Sub-Carpathian Market Area and er	plies in Central-Eastern hancing market
PRJ Code - PRJ Name	PRJ-G-008 - Poland – Slovakia Gas Interconnection		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Interneting DL CK	GAZ-SYSTEM S.A.	2021	PL	SK	143.90 GWh/d	
Interconnector PL - SK	GAZ-SYSTEM S.A.	2021	SK	PL	174.50 GWh/d	

Sponsors		General Information		NDP and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A.	100% Prom	oter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission	
	Opera	ator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)	
	Host	Country	Poland	NDP Number	N/A	
	Statu	5	Planned	NDP Release Date		
	Webs	ite	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>	
				Currently PCI	Yes (6.2.1 (2020))	
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	08/2011	07/2013
FEED	10/2014	11/2018
Permitting	10/2015	06/2018
Supply Contracts		
FID		04/2018
Construction	12/2017	09/2021
Commissioning	2021	2021
Grant Obtention Date	18/12/2017	18/12/2017

Pipelines and Compressor Stations						
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year	
PL-SK Interconnection - Polish section		1,000	59		0	
Pogórska Wola - Tworzeń pipeline		1,000	168		0	
Strachocina - Pogórska Wola pipeline		1,000	98		0	
Tworóg - Tworzeń pipeline		1,000	56		0	
	Total		381			

Fulfil		Crite	ari i
FUIII	ieu	CILLE	-

Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	Market integration: - Creation of a well-integrated and functioning market in the CEE region. SoS: - Mitigation of exposure to supply disruptions in CEE countries; - Reduction of dependence on gas supplies from Russia in the CEE region. Competition: - Reduction of price differences between the CEE and North-West regions; - Enhanced access to new sources of supply in the CEE region (LNG, NO supplies). d) Sustainability - Reduction of emissions in the CEE region by promoting natural gas in national economies.

Delays since last TYNDP

Delay Since Last TYNDP

Delay Explanation

		Expected Gas Sourcing						
.NG ()								
		Benefits						
/lain Driver	Others							
Main Driver Explanation		Increase of SoS in the CEE region. Integration of gas infrastructure in the CEE region by constructing a cross-border Interconnection between PL and SK that is currently missing. Sustainability						
Benefit Description	transportation corr diversification of su gas transmission b	PL-SK Interconnection will have an impact on: creating the condext that will allow for flexible transport of gas in Central Europply routes for the CEE region; improving European gas grid tween Slovakia and Poland (contribution to N-1 standard in and promote the competition.	ope within the North-South axis; increasing the interconnection; increasing the security and re	security of gas supply and liability of the cross-border				
		Intergovernmental Agreemen	ts					
Agreement		Agreement Description	Is Signed	Agreement Signature Dat				
Agreement between the Republic of Poland and the Slovak Republic for of mplementation of the p pipeline connecting the system and Slovak transp	the Government of cooperation on the project of a gas Polish transmission	In Comments	Yes	11/06/2014				

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	31/10/2013	Grants for studies	Yes
Decision Date	28/11/2014	Grants for studies amount	Mln EUR 2.3
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected		Grants for works amount	Mln EUR 52.5
Countries Net Cost Bearer		Intention to apply for CEF	
Additional Comments		Other Financial Assistance	Yes
		Comments	Structural Funds (Operational Programme Infrastructure and Environment 2014-2020): - Pogórska Wola - Tworzeń; - Strachocina - Pogórska Wola; - Tworóg - Tworzeń.
		General Comments	

# Poland - Slovakia interconnection

TRA-F-190	Project Pipeline including		Pipeline including CS	FID
Update Date	22/09	9/2020		Advanced
Description	Construction of a missing interconnection between Slovak an gas market via diversification of gas routes and sources. Secu region.		5	5
PRJ Code - PRJ Name	PRJ-G-008 - Poland – Slovakia Gas Interconnection			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	eustream, a.s.	2021	PL	SK	143.96 GWh/d
Interconnector DL CK		Comment: Commis	ssioning has been pos	tponed to 12/2021	
Interconnector PL - SK	eustream, a.s.	2021	SK	PL	174.59 GWh/d
		Comment: Commis	ssioning has been pos	tponed to 12/2021	

Sponsors			General Information	NDP and PCI Information	
eustream, a.s.	100%	Promoter	eustream,a.s. (a joint-stock company)	Part of NDP	Yes (National Development Plan 2019- 2028)
		Operator	eustream, a.s.	NDP Number	4.1.1.1PL-SK gas interconnection
		Host Country	Slovakia	NDP Release Date	30/11/2018
		Status	In Progress	NDP Website	<u>NDP URL</u>
		Website	Project's URL	Currently PCI	Yes (6.2.1 (2020))
				Priority Corridor(s)	

Schedule	Start Date	End Date
Pre-Feasibility		05/2013
Feasibility	05/2011	07/2013
FEED	10/2015	04/2019
Permitting	08/2015	09/2018
Supply Contracts		12/2019
FID		04/2018
Construction	05/2018	12/2020
Commissioning	2021	2021
Grant Obtention Date	18/12/2017	18/12/2017

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	Third-Party Access Reg	ime
Consid	lered TPA Regime	Regulated
Consid	lered Tariff Regime	Regulated
Applie	d for Exemption	No
Exemp	tion Granted	No
Exemp	tion in entry direction	0.00%
Exemp	tion in exit direction	0.00%

Pipelines and Compressor Stations						
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Slovak section		Existing compressor station at Veľké Kapušany will be modified in order to reach the most optimal technical solution without creation of stranded assets.	1,000	106	0	2021
	Total			106	0	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	Construction of new interconnection between markets enables new trade exchange between these two countries or even other countries in the region. This will force the markets into price convergence process – its effectiveness is dependent on the interconnector's capacity relative to national consumptions and various trade barriers. Creating new transport routes and access to new gas sources lowers these prices and thus benefits all consumers on the market by lower prices. Most of the European countries are able to cover only a small or minimal fraction of their gas consumption by indigenous production. There is a large historical dependence on Russian supplies of gas which concentrates the risks mostly around one supply source. Considering gas as an energy source it is vitally important to diversify supply sources in order to prevent security risks. Robust infrastructure helps to mitigate these risks. Gas as a clean fossil fuel, with low emissions represents sustainable energy source.
	Delays since last TYNDP
Delay Since Last TYNDP	Yes
Delay Explanation	1)Necessity to prolong public procurement proceeding due to the request of tenderers for extension of time period for submission of the initia tender bids. 2)Prolongation of the tendering process caused by postponement of documentation submission by the winning bidder resulted in delay of detailed engineering. 3) Delay in deliveries of pipelines
	Expected Gas Sourcing
Caspian Region, Norway, LNG (QA,U	JS), Turkish hub, Adriatic and Black sea sources, Southern Corridor,
	Benefits
Main Driver Others	
Main Driver Explanation Integratior	of SoS in the CEE region and potentially also in the Baltic region after constructing gas infrastructure between Poland and Baltic states In of gas infrastructure in the CEE region by constructing a currently missing cross-border interconnection between PL and SK. 2, Price Ince based on new gas supply sources and routes 3. Decrease of market concentration on producers side 4, Decrease of carbon emissions
Benefit Description	

	Barr	riers					
Barrier Type	Description	Description					
Permit Granting	- Long term and difficult permitting process with regional counties - Project unfriendly approach by local citizens relating to acceptance of the Project with significant impact on land acquisition in spite of many public consultations and public meetings						
Financing	Availability of funds and associated conditions	Availability of funds and associated conditions					
Market	Lack of market support						
Regulatory	Low rate of return						
	Intergovernmen	ntal Agreements					
Agreement	Agreement Description		Is Signed	d Agreement Signature Date			
Republic of Poland implementation of	d the Government of the for cooperation on the the project of a gas Intergovernmental agreement g the Slovak		Yes	22/11/2013			
Republic of Poland implementation of t pipeline connecting transmission system	for cooperation on the the project of a gas Intergovernmental agreement g the Slovak n and Polish n			22/11/2013			
Republic of Poland implementation of t pipeline connecting transmission system	for cooperation on the the project of a gas Intergovernmental agreement the Slovak n and Polish		Yes Financial Assistance	22/11/2013			
Republic of Poland	for cooperation on the the project of a gas Intergovernmental agreement g the Slovak n and Polish n	Applied for CEF	Financial Assistance	22/11/2013 or CEF and we have received a decisior			
Republic of Poland implementation of t pipeline connecting transmission system transmission system Decision	for cooperation on the the project of a gas Intergovernmental agreement g the Slovak n and Polish n CBCA Yes, we have submitted an investment request and have	Applied for CEF Grants for studies	Financial Assistance	or CEF and we have received a			
Republic of Poland implementation of t pipeline connecting transmission system transmission system Decision Submissin Date	for cooperation on the the project of a gas Intergovernmental agreement g the Slovak n and Polish n CBCA Yes, we have submitted an investment request and have received a decision		Financial Assistance	or CEF and we have received a decision Ye			
Republic of Poland implementation of t pipeline connecting transmission system transmission system Decision Submissin Date Decision Date	for cooperation on the the project of a gas Intergovernmental agreement the Slovak an and Polish an CBCA Ves, we have submitted an investment request and have received a decision 31/10/2013	Grants for studies	Financial Assistance	or CEF and we have received a decision			
Republic of Poland implementation of t pipeline connecting transmission system transmission system	for cooperation on the the project of a gas Intergovernmental agreement g the Slovak n and Polish n CBCA Ves, we have submitted an investment request and have received a decision 31/10/2013 28/11/2014	Grants for studies Grants for studies amount	Financial Assistance	or CEF and we have received a decision Ye Mln EUR 2			

Additional Comments

CAPEX is modified because of a decision not to contruct new compressor units at Veľké Kapušany but to technologically modify the existing compressor station at Veľké Kapušany. This will have a positive impact on CAPEX. Intention to apply for CEF No, we do not plan to apply Other Financial Assistance Yes TEN – E : EU Commission Decision C (2012)8546 granting financial aid for the project "Study : Pre – feasibility study for the Gas Interconnector Poland – Slovakia Comments (Identification of the business case and preparation of pre-

> feasibility study)" (action duration: 01.03.2011 -31.05.2013).

General Comments

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# Enhancement of Latvia-Lithuania interconnection (Lithuania's part)

TRA-A-342		Project		Pip	peline including	J CS N	Non-FID
Update Date		30/01/2020				Non	-Advanced
Description	achieve more effective use of addition, better conditions wi	crease the capacity of the gas systems b the infrastructure and better integration II be provided for the region of the use o Latvia will be increased up to 130.47 GV	of the gas marke of Latvia's Inčukal	ets of the E ns underg	Baltic States, Finlan round gas storage	d and overall BEN facility. After the i	IIP region. In
PRJ Code - PRJ Name	PRJ-G-010 - Latvia - Lithuania	a interconnection					
Capacity Increments Varia	nt For Modelling						
Point		Operator		Year F	rom Gas System	To Gas System	Capacity
Kiemenai		AB Amber Grid		2023	LV	LT	54.43 GWh/o
Kiemenai		AB Amber Grid		2023	LT	LV	62.87 GWh/c
Sponsors		General Information			NDP and	PCI Information	
AB Amber Grid	100%	Promoter	AB Amber Grid	Part of N	IDP Ye	s (Ten-Year Netwo	
		Operator	AB Amber Grid				Plan 2018-202
		Host Country	Lithuania	NDP Nu			n,
		Status	Planned		ease Date		23/08/201
		Website	<u>Project's URL</u>	NDP We			<u>NDP UF</u>
				Currentl			Yes (8.2.1 (2020)
				Priority (	Corridor(s)		

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				. age e
Schedule	Start Date	End Date	Third-Party Access Regime	е
Pre-Feasibility			Considered TPA Regime	Regulat
Feasibility	10/2017	09/2018	Considered Tariff Regime	Regulate
FEED	09/2018	04/2019	Applied for Exemption	Λ
Permitting	05/2019	01/2020	Exemption Granted	Λ
Supply Contracts		04/2023		
FID		10/2020	Exemption in entry direction	0.00
Construction	10/2020	04/2023	Exemption in exit direction	0.00
Commissioning	2023	2023		
Grant Obtention				
Date				

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	The project will remove the exsisting bottleneck of supply limitations and create the adequate infrastructure to fully use the benefits of other infrastructure as well as contribute to the implementation of internal energy market of the Baltic States, Finland and overall BEMIP region. It will ensure safe and reliable supply of gas. The project will contribute to the enhancement of sustainable gas flow and increase of diversification of sources in the region.
	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	Referring to the results of the Feasibility study for the project (carried out in 2018) the project's implementation time shedule has been adjusted accordingly.
	Expected Gas Sourcing
Russia, LNG (NO)	

Current TYNDP : TYN	DP 2020 - Annex A	Page 48 of 773
	Benefits	
Main Driver	Market Demand	
Main Driver Explanation	on Increased gas flows between Latvia and Lithuania.	
Benefit Description	The enhancement of the bi-directional capacity between Latvia and Lithuania will increase the opportunities for a cross Latvia's UGS and ensure safe and reliable natural gas supply, flexibility of the transmission systems both in Lithuania and the mean model to a find and ensure the patient of the patient of the systems.	5 5

the gas markets of the Baltic States, Finalnd and overall BEMIP region.

	CBCA	Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(2) Yes, we have applied for CEF, but we have not received a decision yet	
Submissin Date	04/03/2019	Grants for studies	No	
Decision Date	30/05/2019	Grants for studies amount	Mln EUR 0.0	
Website	<u>CBCA URL</u>	Grants for works	Yes	
Countries Affected	Estonia, Finland, Latvia, Lithuania	Grants for works amount	Mln EUR 7.3	
Countries Net Cost Bearer	Latvia;#Lithuania	Intention to apply for CEF		
Additional Comments		Other Financial Assistance	No	
		Comments		
		General Comments		

# Enhancement of Latvia-Lithuania interconnection (Latvian part)

TRA-A-382		Project		Pi	peline includin	g CS N	Non-FID	
Update Date		15/0	08/2019			Non	-Advanced	
Description	the market. On Latvian side it the most efficient by the feasi and adjust piping of Panevežy	se of the interconnection capac provides for increase of maxir bility study completed in 2018 s gas compressor station. Afte 19.53 GWh/d from Latvia to Li	nal operation pressure in t . On Lithuanian side it is pl er compection of the proje	he transm anned to i	ission system to 5 ncrease the capac	0 bar. This solution ity of Kiemenai me	was selected as tering station	
PRJ Code - PRJ Name	PRJ-G-010 - Latvia - Lithuania	interconnection						
Capacity Increments Variar	nt For Modelling							
Point		Operator		Year I	From Gas System	To Gas System	Capacity	
Kiemenai		Conexus Baltic Grid		2023	LV	LT	54.43 GWh/d	
		Conexus Baltic Grid		2023	LT	LV	62.87 GWh/d	
Sponsors		General Info	ormation		NDP and	d PCI Information		
JSC "Conexus Baltic Grid"	100%	Promoter	JSC "Conexus Baltic Grid"			No ((4) there is no obligation at nation		
		Operator	Conexus Baltic Grid	Part of N	NDP leve	el for such a project	a project to be part of the NDP,	
		Host Country	Latvia	NDP Nu	Imber			
		Status	Planned	1 NDP Release Date				
		Website	<u>Project's URL</u>					
				Currentl	y PCI		Yes (8.2.1 (2020)	
				Priority	Corridor(s)			

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	10/2017	09/2018
FEED	06/2018	12/2020
Permitting	06/2018	06/2022
Supply Contracts		08/2022
FID		01/2020
Construction	01/2020	06/2023
Commissioning	2023	2023
Grant Obtention Date	30/03/2018	30/03/2018

	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas				
Specific Criteria Fulfilled Comments	Interconnection between Latvia and Lithuania is a bottleneck . By implementing this project regional market integration, security of supply and competition will be improved. In addition, upgrading of gas transmission system will reduce possible leaks, thus contributing towards susstanability				
	Delays since last TYNDP				
Delay Since Last TYNDP					
Delay Explanation					
Expected Gas Sourcing					

Russia, LNG ()

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	Benefits					
Main Driver	Market Demand					
Main Driver Explanation	Main driver of the project will be increased gas flows between Lithuania and Latvia.					
Benefit Description	The enhancement of bi-directional capacity between Latvia and Lithuania could increase opportunities for cross-border trade, access to Incukalns UGS for Lithuania and Poland, security of supply, market integration, flexibility of gas transmission systems of Latvia and Lithuania etc.					
	Barriers					
Barrier Type	Description					
Market	Lack of market maturity					
Market	Lack of market support					
Financing	Availability of funds and associated conditions					

	СВСА		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision;#(2) Yes, we have applied for CEF, but we have
Submissin Date	04/03/2019		not received a decision yet
Decision Date	30/05/2019	Grants for studies	No
Website	<u>CBCA URL</u>	Grants for studies amount	Mln EUR 0.0
Countries Affected	Estonia, Finland, Latvia, Lithuania	Grants for works	Yes
Countries Net Cost Bearer	Lithuania	Grants for works amount	Mln EUR 7.3
Additional Comments		Intention to apply for CEF	
		Other Financial Assistance	No
		Comments	

General Comments

We have received funds from CEF for studies and have submitted application for works

		Balti	cconnector					
TRA-F-895		Project		Pipeline including	g CS	FID		
Update Date			22/11/2019		А	dvanced		
Description	) and 20 km onshore pipeline in FI (Siu	New bidirectional offshore pipeline (Inkoo-Paldiski, DN500, 80 bar) of 80 km, plus 55 km onshore pipeline in EE (Kiili-Paldiski pipeline, DN 700, 55 bar ) and 20 km onshore pipeline in FI (Siuntio-Inkoo pipeline, DN500, 80 bar) including metering and compressor stations at both ends with a daily nominal capacity of 7.2 mcm/day. The power of each compressor station is about 10 MW.						
PRJ Code - PRJ Name	PRJ-G-011 - Interconnection Estonia –	Finland						
Capacity Increments Varia	ant For Modelling							
Point		Operator	Year	From Gas System	To Gas System	Capacity		
		Elering AS	2019	EE	FI/BAC	32.00 GWh/d		
		Со	mment: ntry/exit capacity will be appr commissioning of Estor					
		Elering AS	2019	FI/BAC	EE	32.00 GWh/d		
Balticonnector / Paldiski (	(EE)	Comment: ntry/exit capacity will be approximately 40% of final capacity until the commissioning of Estonian compressor stations (until june 2020)						
		Elering AS	2020	EE	FI/BAC	48.00 GWh/d		
		Con	nment: after compressor station comm	issioning entry/exit cap	pacity will be 100%			
		Elering AS	2020	FI/BAC	EE	48.00 GWh/d		
		Con	nment: after compressor station comm	issioning entry/exit cap	pacity will be 100%			

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urrent I INDP : I I	NDP 2020 - An	nex A				Page 55 01 775
Sponsors			General I	nformation	NDP and PCI Information	
EE Kiili pressure ree	duction station		Promoter	Elering AS	Part of NDP	Yes (EESTI GAASIÜLEKANDEVÕRGU
Elering AS		100%	6 Operator	Elering AS		ARENGUKAVA 2019-2028)
EE Kiili-Paldiski pip	eline		Host Country	Estonia	NDP Number	paragraph 3.2
Elering AS		100%	Status	In Progress	NDP Release Date	03/03/2019
_			Website	Project's URL	NDP Website	<u>NDP URL</u>
EE Paldiski meterin	g and Compress				Currently PCI	No
Elering AS	- 1 C	100%			Priority Corridor(s)	
FI-EE Inkoo-Paldisk	i Offshore pipeli	ne				
Elering AS	1	50%				
Schedule	Start Date	End Date			Third-F	Party Access Regime
Pre-Feasibility		12/2005			Considered TPA Regime	e Regulated
Feasibility	01/2006	12/2006			Considered Tariff Regim	ne Regulated
FEED	01/2016	02/2016			Applied for Exemption	No
Permitting	12/2012	01/2019			Exemption Granted	Not Relevant
Supply Contracts		05/2018				
FID		10/2016			Exemption in entry direc	ction 0.00%
Construction	11/2017	12/2019			Exemption in exit directi	ion 0.00%
Commissioning	2019	2020				
Grant Obtention Date	21/10/2016	21/10/2016				

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
EE Onshore	Kiili-Paldiski onshore pipeline, Paldiski compress station	sor 700	55	10	0
Offshore	Inkoo-Paldiski offshore pipeline (Estonian sectio	n) 500	40		0
	Total		95	10	

Deler		Last TV	
	is sinca	LAST I VI	
	vs since	lust i i	

Delay Since Last TYNDP

Delay Explanation

**Expected Gas Sourcing** 

#### Russia, LNG (WO)

Benefits
Regulation-Interroperability
Balticconnector will lift Finland out of the current energy isolation and will provide Finland an opportunity to join in the European single gas market and to terminate the derogations on the EU gas market legislation.
Project has several qualitative and quantitative benefits, such as inccrease in energy security, price convergence in the region, development of the energy market etc.

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	06/04/2016	Grants for studies	Yes
Decision Date	22/04/2016	Grants for studies amount	Mln EUR 0.8
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Finland, Latvia	Grants for works amount	Mln EUR 98.0
Countries Net Cost Bearer	Estonia	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

and a stand the subscription of a Mandalanda many Katalaha Hiti

	Balticconne	ctor Finnish part		
TRA-F-928	Project		Pipeline including CS	FID
Update Date	2	2/11/2019		Advanced
Description	New bidirectional offshore pipeline (Inkoo-Paldiski, DN50 55 bar) and 20 km onshore pipeline in Finland (Siuntio-In a daily nominal capacity of 7.2 mcm/day. The power of ea	koo pipeline, DN500, 80	) bar) including metering and compressor sta	
PRJ Code - PRJ Name	PRJ-G-011 - Interconnection Estonia – Finland			

Point	Operator	Year	From Gas System	To Gas System	Capacity	
	Baltic Connector Oy	2019	FI	FI/BAC	32.00 GWh/d	
				: The capacity will acity 80) until the Estonian compressor station is		
	Baltic Connector Oy	2019	FI/BAC	completed. Fl	32.00 GWh/d	
Balticconnector / Siuntio (FI)				: The capacity will acity 80) until the Estonian compressor station is completed.		
	Baltic Connector Oy	2020	FI	FI/BAC	48.00 GWh/d	
	Comment: New capacity increm	nents after Estonian (	CS is completed with re	emaining capacity increment (60%)		
	Baltic Connector Oy	2020	FI/BAC	FI	48.00 GWh/d	
	Comment: New capacity increments after Estonian CS is completed with remaining capacity increment (60%)					
Balticonnector / Paldiski (EE)	Baltic Connector Oy	2019	EE	FI/BAC	32.00 GWh/d	

Current	TYNDP	P: TYNDP	2020 -	Annex A
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				nt: The capacity wi pacity 80) until the Estonia compresso station complete	e n or is
	Baltic Connector Oy	2019	FI/BAC	EE	32.00 GWh/d
Balticonnector / Paldiski (EE)				nt: The capacity wi pacity 80) until the Estonia compresso station complete	e n or is
	Baltic Connector Oy	2020	EE	FI/BAC	48.00 GWh/d
	Comment: New capacity increment	nents after Estonian CS	is completed with	remaining capacit increment (609	<i>.</i>
	Baltic Connector Oy	2020	FI/BAC	EE	48.00 GWh/d
	Comment: New capacity increment	nents after Estonian CS	is completed with	remaining capacit increment (60	<i>,</i>

Sponsors			General Information	NDI	P and PCI Information
FI Inkoo metering and compressor station		Promoter	Baltic Connector Oy	Part of NDP	No ((2) no NDP exists in the country)
Baltic Connector OY	100%	Operator	Baltic Connector Oy	NDP Number	
FI Inkoo-Siuntio pipeline		Host Country	Finland	NDP Release Date	
Baltic Connector OY	100%	Status	In Progress	NDP Website	
		Website	<u>Project's URL</u>	Currently PCI	No
FI-EE Inkoo-Paldiski Offshore pipeline				Priority Corridor(s)	
Baltic Connector OY	50%			,	

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2006	12/2006
FEED	01/2016	05/2017
Permitting	12/2012	05/2018
Supply Contracts		10/2017
FID		10/2016
Construction	12/2017	12/2019
Commissioning	2019	2020
Grant Obtention Date	21/10/2016	21/10/2016

	Pipeline Comment Inkoo-Siuntio pipeline, Inkoo compressor station	Diameter (mm) 500	(km)	Compressor Power (MW)	Comissioning Year
	Inkoo-Siuntio pipeline, Inkoo compressor station	500			
		500	20	10	0
	Inkoo-Paldiski offshore pipeline (the whole pipeline is 80 km)	500	40		0
Total			60	10	
	Delays since last TYNDP				
	Total	Total	km) Total	km) Total 60	km) Total 60 10

Expected Gas Sourcing

Russia, LNG (LT)

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	Benefits
Main Driver	Regulation-Interroperability
	Balticconnector will lift Finland out of the current energy isolation and will provide Finland an opportunity to join in the European single gas market and to terminate the derogations on the EU gas market legislation.
Benefit Description	Project has several qualitative and quantitative benefits, such as increase in energy security, price convergence in the region, development of the energy market etc.

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	06/04/2016	Grants for studies	Yes
Decision Date	22/04/2016	Grants for studies amount	Mln EUR 4.6
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Finland, Latvia	Grants for works amount	Mln EUR 89.5
Countries Net Cost Bearer	Estonia	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

# Gaspipeline Brod - Zenica

TRA-N-224	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	Gaspipeline Brod-Zenica is the project that will enable new supply route for BiH pro- above, the realization of the project will contribute to the development of the gas market in t Brod Gas pipeline will be be-directional and together with the Project Southern In is in connection with Project Slobodnica-Bosanski Brod (TRA-N-66) located in Cro	the northern part of Bosnia and Herzegovir terconnection (TRA-N-851) will create a pa	na. Gas pipeline route
PRJ Code - PRJ Name	PRJ-G-013 - North Interconnection of BiH and Croatia		

#### Capacity Increments Variant For Modelling Point Operator Year From Gas System To Gas System Capacity 2025 ΒA HR 35.00 GWh/d BH Gas d.o.o. Comment: Technical entry capacity from Croatia to BIH is 162 GWh/d Slobodnica- Bosanski Brod-Zenica BH Gas d.o.o. 2025 HR 162.00 GWh/d ΒA Comment: Technical exit capacity from BIH to Croatia is 35 GWh/d

Sponsors			General Information	Ν	DP and PCI Information
BH-Gas	100%	Promoter	BH-Gas d.o.o.		Yes (Framework Energy Strategy of BiH
		Operator	BH Gas d.o.o.	Part of NDP	until 2035, 2018 and Strategic Plan and Program of FBiH, 2009)
		Host Country	Bosnia Herzegovina	NDP Number	Program of Рып, 2009) PTG1
		Status	Planned	NDP Release Date	29/08/2018
		Website	Project's URL	NDP Website	<u>NDP URL</u>
				Currently PCI	No
				Priority Corridor(s)	NSIE

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Schedule	Start Date	End Date	Third-Party Access Re	egin
asibility		02/2006	Considered TPA Regime	
asibility	01/2020	01/2021	Considered Tariff Regime	
ED	02/2021	02/2022	Applied for Exemption	
ermitting	02/2021	01/2023	Exemption Granted	
pply Contracts		01/2024		
D		01/2022	Exemption in entry direction	
onstruction	03/2024	09/2025	Exemption in exit direction	
ommissioning	2025	2025		
rant Obtention				
ate				

Pipelines and Compressor Sta	ntions					
Pipeline Section	Pipeline C	omment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Brod-Zenica	Total lengt route	h includes branches to the cities along the	500	140	0	2025
	Total			140	0	
		Fulfilled Criteria				
Specific Criteria Fulfilled Specific Criteria Fulfilled Comm	appropriate connections and diversificat emissions, supporting intermittent renev	ation of supply sources, supplying counterparts on of supply sources, supplying counterparts a vable generation and enhancing deployment o	and routes, S	Sustainab		
		Delays since last TYNDP				
Delay Since Last TYNDP	YES					
Delay Explanation	official representatives, as well as lack of	roject runs through Republic of Srpska Entity, t primary gas legislation at the state level in acco ssessed project cost related to preliminary activ	ordance wit			

**Expected Gas Sourcing** 

Algeria, Caspian Region, Norway, Russia, LNG (HR), UGS in neigboring and other countries

#### Comments about the Third-Party Access Regime

It is expected that TPA regime and Tariff methodology will be covered by gas primary legislation, all in accordance with Third Package.

	Benefits			
Main Driver	Regulation SoS			
Main Driver Explanation	Project will directly increase N-1 for Bosnia and Herzegovina and enable flexibility of the natural gas system in BiH.			
Benefit Description	Project will enable route and supply source diversification for BiH as well as development of natural gas market and integration BiH gas market in regional gas network. Project will increase SoS for BiH (currently N-1=0). Project will enable introducing gas in energy consumption sector (residential, industrial and specially existing Oil rafinery in Brod). Switching from traditional fuels to using natural gas means significant reducing CO2, SO2 and NOx emissions.			
Barriers				
Barrier Type	Description			
Permit Granting	Projects runs through the two BiH entities and procedures of providing neccessary consents and permits could need much time, having in mind that Competent authority did in BiH not formed yet.			
Political	Lack of primary gas legislation in accordance with Third Energy Package, as well as conensus at the state level.			
Financing	Availability of funds and associated conditions			
Market	Lack of market support			
Regulatory	Lack of proper transposition of EU regulation			

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ecision and we have not yet decided whether we will submit or not		CBCA		Financial Assistance
not       Grants for studies       MIn EUR C         ubmissin Date       Grants for studies       MIn EUR C         ecision Date       Grants for works       M         /ebsite       Grants for works amount       MIn EUR C         pountries Affected       Grants for works amount       MIn EUR C         pountries Net Cost Bearer       Intention to apply for CEF       M         dditional Comments       Other Financial Assistance       M         Comments       Comments       WBIF round 6, Dec. 2011, but this grant was not relized         but it was withdrawn because of subsequent lack of th       entity of Republic of Srpska support. Due to Measure         Imposed to BiH by Enc Ministerial Council in Oct 2011       BH-Gas projects are not eligible for applying to WB.         General Comments       General Comments       Community Contracting Party, BH-Gas is not in possitio			Applied for CEF	(3) No, we have not applied for CE
ubmissin Date       Grants for studies amount       MIn EUR C         ecision Date       Grants for works       M         (ebsite)       Grants for works amount       MIn EUR C         ountries Affected       Intention to apply for CEF       MIn EUR C         ountries Net Cost Bearer       Other Financial Assistance       M         dditional Comments       Comments       Grants of 1 MEUR for FS, EIA, SIA and CBA was approved it         but it was withdrawn because of subsequent lack of the entity of Republic of Srpska support. Due to Measure       MBIF round 6, Dec. 2011, but this grant was not relized         but it was withdrawn because of subsequent lack of the entity of Republic of Srpska support. Due to Measure       Moneset of Support. Due to Measure         General Comments       General Comments       General Comments	Decision		Grants for studies	Ne
ceision DateGrants for worksM/ebsiteGrants for works amountMIn EUR Countries AffectedIntention to apply for CEFountries Net Cost BearerOther Financial AssistanceMdditional CommentsGrants or unable of the seriesSrant of 1 MEUR for FS, EIA, SIA and CBA was approved it WBIF round 6, Dec. 2011, but this grant was not relized but it was withdrawn because of subsequent lack of th entity of Republic of Srpska support. Due to Measure Imposed to BiH by EnC Ministerial Council in Oct 2013; BH-Gas projects are not eligible for applying to WBI Having in mind that BiH is not MS, but Energy Community Contracting Party, BH-Gas is not in possitio to apply to CEF. Once if this criterium will be changed, we	Submissin Data	not	Grants for studies amount	Mln EUR 0.
VebsiteGrants for works amountMIn EUR Commentsountries AffectedIntention to apply for CEFountries Net Cost BearerOther Financial AssistanceNdditional CommentsGrants of 1 MEUR for FS, EIA, SIA and CBA was approved is WBIF round 6, Dec. 2011, but this grant was not relized but it was withdrawn because of subsequent lack of the entity of Republic of Srpska support. Due to Measure Imposed to BiH by EnC Ministerial Council in Oct 2013; BH-Gas projects are not eligible for applying to WB. Having in mind that BiH is not MS, but Energy Community Contracting Party, BH-Gas is not in possitio to apply to CEF. Once if this criterium will be changed, we			Grants for works	N
ountries AffectedIntention to apply for CEFountries Net Cost BearerOther Financial AssistanceMdditional CommentsGommentsGrant of 1 MEUR for FS, EIA, SIA and CBA was approved it WBIF round 6, Dec. 2011, but this grant was not relized but it was withdrawn because of subsequent lack of th entity of Republic of Srpska support. Due to Measure Imposed to BiH by EnC Ministerial Council in Oct 2013; BH-Gas projects are not eligible for applying to WBI Having in mind that BiH is not MS, but Energy Community Contracting Party, BH-Gas is not in possitio to apply to CEF. Once if this criterium will be changed, we			Grants for works amount	Mln EUR 0.
ountries Net Cost Bearer       Other Financial Assistance       M         dditional Comments       General Comments       General Comments         General Comments       Comments       Community Contracting Party, BH-Gas is not in possitio to apply to CEF. Once if this criterium will be changed, w			Intention to apply for CEF	
dditional Comments General Comments General Comments General Comments Grant of 1 MEUR for FS, EIA, SIA and CBA was approved is WBIF round 6, Dec. 2011, but this grant was not relized but it was withdrawn because of subsequent lack of th entity of Republic of Srpska support. Due to Measure Imposed to BiH by EnC Ministerial Council in Oct 2013 BH-Gas projects are not eligible for applying to WBI Having in mind that BiH is not MS, but Energ Community Contracting Party, BH-Gas is not in possitio to apply to CEF. Once if this criterium will be changed, we			Other Financial Assistance	N
General Comments Community Contracting Party, BH-Gas is not in possition to apply to CEF. Once if this criterium will be changed, w	Additional Comments		Comments	Grant of 1 MEUR for FS, EIA, SIA and CBA was approved in WBIF round 6, Dec. 2011, but this grant was not relized, but it was withdrawn because of subsequent lack of the entity of Republic of Srpska support. Due to Measures Imposed to BiH by EnC Ministerial Council in Oct 2015, BH-Gas projects are not eligible for applying to WBIF
will use this opportunity			General Comments	Having in mind that BiH is not MS, but Energy Community Contracting Party, BH-Gas is not in possition to apply to CEF. Once if this criterium will be changed, we will use this opportunity.

# Interconnection Croatia -Bosnia and Herzegovina (Slobodnica- Bosanski Brod)

TRA-N-66	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Advanced
Description	The pipeline covers the countries Croatia and Bosnia and Herzegovina and it will be Slavonski Brod (Slobodnica) in Croatia, it will cross the Sava river to Bosanski Brod		
PRJ Code - PRJ Name	PRJ-G-013 - North Interconnection of BiH and Croatia		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Clabodnice, Descushi Rusel Zenice	Plinacro Ltd	2025	BA	HR	162.00 GWh/d
Slobodnica- Bosanski Brod-Zenica	Plinacro Ltd	2025	HR	BA	162.00 GWh/d

Sponsors			General Information	NDP and I	PCI Information
B&H, Bosanski Brod - Zenica		Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
BH Gas	100%	Operator	Plinacro Ltd	NDP Number	1.15
Croatia, Slobodnica-Bosanski Brod (border)		Host Country	Croatia	NDP Release Date	15/12/2017
Plinacro	100%	Status	Planned	NDP Website	<u>NDP URL</u>
		Website	Project's URL	Currently PCI	No
				Priority Corridor(s)	NSIE

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Schedule	Start Date	End Date	Third-Party Access Regime	
Pre-Feasibility			Considered TPA Regime	Regula
Feasibility	01/2020	01/2020	Considered Tariff Regime	Regula
FEED	01/2020	01/2020	Applied for Exemption	I
Permitting	01/2020	01/2020	Exemption Granted	I
Supply Contracts		01/2021		
FID		01/2022	Exemption in entry direction	0.00
Construction	01/2022	01/2023	Exemption in exit direction	0.00
Commissioning	2025	2025		
Grant Obtention				
Date				

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Slobodnica - Bosanski Brod		700	6		2024
	Total		6		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supp appropriate connections and diversification of supply sources, supply				-
Specific Criteria Fulfilled Comm	emissions, supporting intermittent renewable generation and enhancements	ing deployment of renewable	e gas	,. J	,
Specific Criteria Fulfilled Comm		ing deployment of renewable	e gas	,. J	,
Specific Criteria Fulfilled Comm		ing deployment of renewable	e gas	у. <u> </u>	,
Specific Criteria Fulfilled Comm Delay Since Last TYNDP	nents	ing deployment of renewable	e gas	,	,

**Expected Gas Sourcing** 

#### Russia, LNG (HR)

		Benefits						
Main Driver	Market Demand							
Main Driver Explanation	This project is of great interest for the development of the natural gas sector in B&H, as its implementation would provide new route of supply B&H with gas, with a possibility of diversification of supply sources and increase in security of supply of the existing transportation system of B&H, and especially the circumstances of the natural gas supply of the refineries Brod and Modrica and planned power plant (PP) Zenica and CCGT Kakanj, as well as the expansion of the market and increase in the competitiveness of natural gas. The construction of this gas pipeline would enable the B&H gas transmission system to connect with the Croatian gas transmission system through the pipeline from Slavonski Brod to Donji Miholjac, and then with the Hungarian pipeline. It will connect BH market to the new LNG in Croatia and Baumgarten via Slovenia.							
Benefit Description	Herzegovina. It will route Slobodnica-B Herzegovina; 2. It p market in Bosnia ar complementary ger	erzegovina. It will anable BH access to Croatian UGS. This project is an interconnection of the gas systems of Croatia and Bosnia and Herzegovina on the pute Slobodnica-Brod-Zenica. The most important impacts and benefits of this project: 1. It provides viability and security of supply of Bosnia and erzegovina; 2. It provides diversification of supply routes and sources for the market of Bosnia and Herzegovina; 3. It provides development of the gas arket in Bosnia and Herzegovina; 4. Introducing an environmentally more acceptable energy source (replacement for firewood, coal, fuel oil and complementary generation to renewable energy, and the potential for new CCGT and PP); 5. Reducing CO2 and SO2 emissions in the B&H and region and cilitating economic development.						
		Barriers						
Barrier Type	Description							
Political	This project is politi GasRES)	icaly very sensitive and depends on the agreement with Republika Srpska and agremments within B8	kH and its TSC	)s (BH Gas and				
		Intergovernmental Agreements						
Agreement		Agreement Description Is S	Signed Agree	ement Signature Date				
Memorandum of unders	standing	MoU between Plinacro and Bh Gas	No	27/04/2017				
Memorandum of unders	standing	signed between Plinacro and BH Gas	Yes	26/06/2006				
Letter of Intent		between Plinacro and BH Gas for all projects of interconnection	Yes	06/04/2011				

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	CBCA	Financi	al Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	
Countries Affected		Other Financial Assistance	Na
Countries Net Cost Beare	r		No
Additional Comments		Comments	
Additional comments		General Comments	

# Southern Interconnection pipeline BiH/CRO

TRA-N-851	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	Southern Interconnection pipeline BIH/CRO (Posusje-Novi Travnik with main branch t B&H providing a diversified and reliable natural gas supply such as LNG, Caspian, Mid and together with realization of gas pipeline Brod - Zenica (TRA-N-224) will create a p	dle East and other gas sources. Project	
PRJ Code - PRJ Name	PRJ-G-014 - South Interconnection of BiH and Croatia		

Capacity Increments Variant For Modelling	g				
Point	Operator	Year	From Gas System	To Gas System	Capacity
	BH Gas d.o.o.	2023	BA	HR	38.00 GWh/d
Decušie	Con	nment: Technical entry c	apacity from Croatia	to BiH is 73 GWh/a	1
Posušje	BH Gas d.o.o.	2023	HR	BA	73.00 GWh/d
	C	omment: Technical exit c	apacity from BiH to C	roatia is 38 GWh/a	1

Sponsors		Genera	al Information	N	DP and PCI Information
BH-Gas	100%	Promoter	BH-GAS d.o.o.		Yes (Framework Energy Strategy BiH
		Operator	BH Gas d.o.o.	Part of NDP	until 2035, 2018 and Strategic Plan and
		Host Country	Bosnia Herzegovina		Programme of FBiH, 2009)
		Status	Planned	NDP Number	No 10 in Framework Energy Strategy BiH until 2035 and PTG2 in SPP
		Website	<u>Project's URL</u>	NDP Release Date	29/08/2018
				NDP Website	<u>NDP URL</u>
				Currently PCI	No
				Priority Corridor(s)	SGC

Current	<b>TYNDP</b>	P: TYNDP	2020 -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		10/2013
Feasibility	08/2019	08/2020
FEED	08/2019	01/2021
Permitting	08/2020	01/2022
Supply Contracts		02/2022
FID		01/2021
Construction	03/2022	09/2023
Commissioning	2023	2023
Grant Obtention		
Date		

Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year						
Posusje - Novi Travnik with branch to Mostar		Total lenght of main route Posusje - Novi Travnik is 114 km; Total lenght of branch to Mostar is 48 km.	500	162	0	2023						
Total		Total		162	0							
					Fulfilled Criteria							
		Fulfilled Criteria										
Specific Criteria Fulfilled	appropriate connec	Fulfilled Criteria alia through diversification of supply sources, supplying counterpart ctions and diversification of supply sources, supplying counterparts ing intermittent renewable generation and enhancing deployment o	and routes,	Sustainab								
Specific Criteria Fulfilled Specific Criteria Fulfilled Commer	appropriate connec emissions, supporti	alia through diversification of supply sources, supplying counterpart ctions and diversification of supply sources, supplying counterparts	and routes,	Sustainab								
	appropriate connec emissions, supporti	alia through diversification of supply sources, supplying counterpart ctions and diversification of supply sources, supplying counterparts	and routes,	Sustainab								

Comments about the Third-Party Access Regime

It is expected that TPA regime and Tariff methodology will be covered by gas primary legislation in accordance with Third Energy Package.

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	Benefits
Main Driver	Others
Main Driver Explanation	Currently BiH gas system is isolated and depending of one supply route. With the realization of this Project, natural gas systems of BiH and Croatia will be interconnected. Main goal is to establish new supply route for BiH providing reliable and diversified natural gas supply increasing security of supply. Having in mind limited capacity and age of the existing supply route, South Interconnector in the near future could become the only supply route for Federation of BiH/BiH. Because of the urgency of realization of this Project, Government of Federation of BiH issued Conclusion V. No. 853/2017 on Strategic importance of the Project. Project is contained in Comprehensive Energy Strategy BiH 2035 which is adoppted in August 2018.
Benefit Description	Capacity of the existing system is jeopardise by intetion to connect a new consumers in RS reducing gas quantities for FBiH. In this case consumers in Federation of BiH will directly depend on the realization of this project. Project will improve import route and supply source diversification. Lower usage of traditional fuels in energy consumption sectors (residential and industrial) means significant protection of BiH forestry and decreasing CO2, SO2 and NOx emissions.
	Barriers
Barrier Type	Description
Political	Lack of primary gas legislation in accordance with Third Energy Package.
Regulatory	Lack of proper transposition of EU regulation
inancing	Availability of funds and associated conditions
Market	Lack of market maturity

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	CBCA	-	Financial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	but we do plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bearer		Other Financial Assistance	Yes
Additional Comments		Comments	0,40 Million EUR from WBIF, PFS finalized in October 2013; 0,141 Million EUR from CONNECTA, CBA finalized in May 2018, approx 0,418 Million EUR from USAID for FS and ESIA preparation, in progress approx 1,0 Million EUR for Preliminary Design and Tender Dossier from EC, in progress
		General Comments	

## Interconnection Croatia-Bosnia and Herzegovina (South)

TRA-A-302	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Advanced
Description	South Interconnection of Croatia and B&H - the pipeline is a new supply route f natural gas supply. The pipeline will enable the flow of IAP to Bosnia and Herzeg	5	e reliable and dievrsifed
PRJ Code - PRJ Name	PRJ-G-014 - South Interconnection of BiH and Croatia		

Capacity Increment	s Variant For Modelling				
Point	Opera	tor Year	From Gas System	To Gas System	Capacity
Posušje	Plinaci	o Ltd 2023	BA	HR	81.00 GWh/d
	Plinace	o Ltd 2023	HR	BA	81.00 GWh/d

Sponsors			General Information	NDP and	PCI Information
Croatian part		Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
Plinacro d.o.o.	100%	Operator	Plinacro Ltd	NDP Number	1.13
parts in B&H		Host Country	Croatia	NDP Release Date	15/12/2017
BH Gas	100%	Status	Planned	NDP Website	<u>NDP URL</u>
	10070	Website	<u>Project's URL</u>	Currently PCI	No
				Priority Corridor(s)	NSIE, SGC

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Schedule	Schedule Start Date End Date	
Pre-Feasibility		09/2013
Feasibility	07/2017	05/2018
FEED	06/2021	05/2022
Permitting	08/2014	05/2022
Supply Contracts		09/2022
FID		06/2022
Construction	10/2022	12/2023
Commissioning	2023	2023
Grant Obtention		
Date		

Zagvozd-Imotski-Posušje Total Fulfilled Criteria	500	22		2022
				2023
Fulfilled Criteria		22		
Specific Criteria Fulfilled Competition, inter alia through diversification of supply sources, supplying counterparts and emissions, supporting intermittent renewable generation and enhancing deployment of r	d routes, S	ustainab	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-
Specific Criteria Fulfilled Comments				
Expected Gas Sourcing				

	Ben	efits			
Market Demand	d				
Market Demand	d and SoS for the Southern part of Bosnia and Her	rzegovina			
The aim of the	project is to establish a new supply route for B&H	providing a diversified and relia	ble natural gas supply.		
	Barı	riers			
Description					
Availability of fu	unds and associated conditions				
	Intergovernmen	ntal Agreements			
	Agreement Description		Is Signed A	greement Signature Date	
	between Plinacro and BH Gas for all projects	of interconnection	Yes	06/04/2011	
standing	MoU between Plinacro and BH Gas		Yes	27/04/2017	
	CBCA		Financial Assistance		
No, we	have not submitted an investment request yet,	Applied for CEF	(3) No, и	e have not applied for CE	
and we h	-	Grants for studies	: Mln EU		
	not	Grants for studies amount			
		Grants for works		N	
		Grants for works amount		Mln EUR 0.	
		Intention to apply for CEF			
		Other Financial Assistance		Ye	
Countries Net Cost Bearer Additional Comments		Comments	Prefeasibility Study in the toto	by WBIF grant for the join al amount of 0,4 mil € and r the joint CBA in the tota amount of 0,141 mil €	
		General Comments			
	Market Deman The aim of the Description Availability of for rstanding No, we and we h	Market Demand and SoS for the Southern part of Bosnia and Her The aim of the project is to establish a new supply route for B&H Bar Description Availability of funds and associated conditions Agreement Description between Plinacro and BH Gas for all projects MoU between Plinacro and BH Gas CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	Market Demand and SoS for the Southern part of Bosnia and Herzegovina The aim of the project is to establish a new supply route for B&H providing a diversified and relia Barriers Description Availability of funds and associated conditions Intergovernmental Agreements Agreement Description between Plinacro and BH Gas CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not Grants for studies amount Grants for studies amount Grants for works Grants for studies amount Intention to apply for CEF Other Financial Assistance rer	Market Demand       Market Demand and SoS for the Southern part of Bosnia and Herzegovina         The aim of the project is to establish a new supply route for B&H providing a diversified and reliable natural gas supply.         Barriers         Description         Availability of funds and associated conditions         Intergovernmental Agreements         Agreement Description         between Plinacro and BH Gas for all projects of interconnection       Yes         MOU between Plinacro and BH Gas       Yes         CECA         No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not       Applied for CEF       (3) No, we Grants for studies         Grants for studies       Grants for studies amount       Grants for works       Grants for works         Grants for works       Grants for works amount       Intertoin to apply for CEF       Other Financial Assistance         The Project is awarded to by CONNECTA grant for works amount	

ra-N-910		Project		Pip	eline including	g CS N	lon-FID
Jpdate Date			15/08/2019			Non	-Advanced
Description		A-N-33) located in Cr	a Krupa with branches to Bihac and N oatia will connect BiH with existing C rina.				
PRJ Code - PRJ Name	PRJ-G-015 - West Interconne	ction of BiH and Cro	atia				
Capacity Increments Varian	t For Modelling						
Point		Operator		Year F	rom Gas System	To Gas System	Capacity
Rakovica (HR) / Trzac (BA)		BH Gas d.o	.0.	2026	BA	HR	73.00 GWh
		BH Gas d.o	.0.	2026	HR	BA	73.00 GWh
Sponsors		G	eneral Information		NDP and	PCI Information	
BH-Gas	100%	Promoter	BH-Gas d.o.o.		Yes	Yes (Framework Energy Strate	
		Operator	BH Gas d.o.o.	Part of N	DP	until 2035 and St	
		Host Country	Bosnia Herzegovina		Progra	Programe of Development Ene in	
		Status	Planned		No	11 - Framework Er	nergy Strategy
		Website	<u>Project's URL</u>	NDP Nur	mber B	BiH until 2035 and Plan and Program	PTG4 - Strate
				NDP Rele	ease Date		29/08/2
				NDP Wel	bsite		<u>NDP</u>
				Currently	PCI		
				Priority C	Corridor(s)		

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Schedule	Schedule Start Date End Date		Third-Party Access Regime
Pre-Feasibility		06/2008	Considered TPA Regime Not Appli
Feasibility	01/2020	01/2021	Considered Tariff Regime Regu
FEED	02/2021	02/2023	Applied for Exemption
Permitting	02/2021	03/2024	Exemption Granted
Supply Contracts		03/2025	
FID		03/2023	Exemption in entry direction 0
Construction	03/2025	09/2026	Exemption in exit direction 0
Commissioning	2026	2026	
Grant Obtention			
Date			
Dute			

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Trzac - Bosanska Krupa	Additionally, branches to Bihac and Velika Kladusa in total lenght of 45 km with diameter 250 mm.	500	35	0	2026
Total			35	0	

**Expected Gas Sourcing** 

Algeria, Caspian Region, Norway, Russia, LNG (HR), UGS in neighboring and other countries

Comments about the Third-Party Access Regime

It is expected that TPA regime and Tariff methodology will be covered by gas primary legislation in accordance with Third Package at least up to the end of 2016.

		Benefits						
Main Driver	Market Demand							
Main Driver Explanation	Project will enable development of natural gas market in the	western part of BiH.						
Benefit Description	Project will enable development of the natural gas market in means significant protection of BiH forestry. Project will decre	5						
		Barriers						
Barrier Type	Description							
Political	Lack of primary gas legislation in accordance with Third Ener	gy Package, as well as energy policy	/ at the state level.					
Regulatory	Lack of proper transposition of EU regulation	k of proper transposition of EU regulation						
Financing	Availability of funds and associated conditions							
Market	Lack of market support							
		_						
	CBCA		Financial Assistance					
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for C					
	and we have not yet decided whether we will submit or not	Giants for studies	1					
Submissin Date	10	Grants for studies amount	Mln EUR C					
Decision Date		Grants for works	٨					
Vebsite		Grants for works amount	Mln EUR (					
Countries Affected		Intention to apply for CEF						
Countries Net Cost Bear	ar	Other Financial Assistance	٢					
Additional Comments	51	Comments	BH-Gas financed by its own funds Pre-fesibility Stua developed in 200					
			BH-Gas intends to apply to the available funds in order t					
		General Comments	provide necessery documentation such as FS, ESIA an Preliminary Design (WB					

## Interconnection Croatia-Bosnia and Herzegovina (west)

TRA-N-303	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	Interconnection Croatia-Bosnia and Herzegovina on route Licka Jesenica-Rakovica in from Trzac to Bosanska Krupa with branches to Bihać and Velika Kladusa.	Croatia to border with Bosnia and Herz	regovina. Bosnian part is
PRJ Code - PRJ Name	PRJ-G-015 - West Interconnection of BiH and Croatia		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Plinacro Ltd	2026	BA	HR	81.00 GWh/d
Rakovica (HR) / Trzac (BA)	Plinacro Ltd	2026	HR	BA	81.00 GWh/d

Sponsors			General Information	NDP and PCI Information		
Croatian part		Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)	
Plinacro d.o.o.	100%	Operator	Plinacro Ltd	NDP Number	1.35 and 1.36	
part in B&H		Host Country	Croatia	NDP Release Date	15/12/2018	
BH Gas	100%	Status	Planned	NDP Website	<u>NDP URL</u>	
	10070	Website	Project's URL	Currently PCI	No	
				Priority Corridor(s)		

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			0
Start Date	End Date	Third-Party Access Regime	
		Considered TPA Regime	Regula
02/2026	05/2026	Considered Tariff Regime	Regula
05/2026	05/2027	Applied for Exemption	
05/2025	05/2027	Exemption Granted	
	11/2027		
	01/2027	Exemption in entry direction	0.0
11/2027	11/2028	Exemption in exit direction	0.0
2026	2026		
	02/2026 05/2026 05/2025 11/2027	02/2026 05/2026 05/2026 05/2027 05/2025 05/2027 11/2027 11/2027 11/2027 11/2028	O2/2026         O5/2026         Considered TPA Regime           05/2026         05/2027         Considered Tariff Regime           05/2025         05/2027         Applied for Exemption           05/2025         05/2027         Exemption Granted           11/2027         01/2027         Exemption in entry direction           11/2027         11/2028         Exemption in exit direction

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Lička Jesenica-Rakovica		500	20		2028
Rakovica-Bihać		500	10		2028
	Total		30		

### **Expected Gas Sourcing**

### Caspian Region, LNG (HR,QA)

	Benefits
Main Driver	Market Demand
Main Driver Explanation	For the western part of Bosnia and Herzegovina
Benefit Description	The aim of the project is to assess the feasibility of providing gas supply to the Una-Sana Canton in BiH from the Croatian gas transmission system. It will be from the Lička Jesenica gas transmission node in Croatia via Lika to the HR/BiH border and from there to Bosanska Krupa with brances to Bihać and velika Kladuša in Una-Sana Canton. The extension of the gas transmission in Croatia to the border with BiH will allow additional gasification in the part of Croatia along the pipeline route.

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	Bar	riers		
Barrier Type	Description			
Market	Lack of market maturity			
Market	Lack of market support			
	Intergovernmer	ntal Agreements		
Agreement	Agreement Description		Is Signed Agre	eement Signature Date
Letter of Intent	between Plinacro and BH Gas for all projects	of interconnection	Yes	06/04/2011
	CBCA	Fina	ancial Assistance	
	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(3) No, we ł	nave not applied for CEF
Decision		Grants for studies		No
Cultura in Data	not	Grants for studies amount		Mln EUR 0.0
Submissin Date		Grants for works		No
Decision Date		Grants for works amount		Mln EUR 0.0
Website		Intention to apply for CEF		
Countries Affected		Other Financial Assistance		No
Countries Net Cost Beare	26	Comments		
Additional Comments		General Comments		

# Gas Interconnection Poland-Lithuania (GIPL) (Lithuania's section)

TRA-F-341		Project		F	Pipeline including	g CS	FID
Update Date		18/11/201	9			A	dvanced
Description	integrate the isolated gas ma	lish a well-functioning new bidirection rkets of the Baltic States and Finland project a 165 km-long and 700 mm-d de.	into the EU gas grid,	by intro	ducing an alternativ	e gas supply route	e to the Baltic
PRJ Code - PRJ Name	PRJ-G-017 - Gas Interconnect	tion Poland-Lithuania (GIPL)					
Capacity Increments Varia	ant For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Interconnector PL-LT		AB Amber Grid		2021	LT	PL	58.30 GWh/d
		AB Amber Grid		2021	PL	LT	73.90 GWh/d
Sponsors		General Informati	on		NDP and	PCI Information	
AB Amber Grid	100%	Promoter	AB Amber Grid	Part of	f NDP Yes	(Network Develop	oment Plan 2018-
		Operator	AB Amber Grid				2027)
		Host Country	Lithuania		lumber		n/a
		Status	In Progress		lelease Date		23/08/2018
		Website	<u>Project's URL</u>		Vebsite		<u>NDP URL</u>
					ntly PCI		Yes (8.5 (2020))
				Priorit	y Corridor(s)		

Schedule	Start Date	End Date
Pre-Feasibility		12/2012
Feasibility	02/2012	02/2013
FEED	05/2015	09/2016
Permitting	07/2016	09/2016
Supply Contracts		06/2021
FID		05/2018
Construction	11/2019	06/2021
Commissioning	2021	2021
Grant Obtention Date	15/10/2015	15/10/2015

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Third-Party Access Reg	gime
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	No
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Border PL/LT - Jauniunai		700	165		0
	Total		165		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supply lifting the isolation of at least one Member State and reducing energy i	<b>e</b>		-	-
	of Supply, inter alia through appropriate connections and diversification inter alia through reducing emissions, supporting intermittent renewab		0		
	inter alia through reducing emissions, supporting intermittent renewab	le generation and enhancin rity of supplies, being of sig	g deploy nificant ir	ment of renewable ga nportance for the ene	as ergy security o
	inter alia through reducing emissions, supporting intermittent renewab It is one of the key projects in the area of infrastructure providing secur	le generation and enhancin rity of supplies, being of sig	g deploy nificant ir	ment of renewable ga nportance for the ene	as ergy security o
	inter alia through reducing emissions, supporting intermittent renewab It is one of the key projects in the area of infrastructure providing secur the EU. The project will contribute to the sustainability as well as increa	le generation and enhancin rity of supplies, being of sig	g deploy nificant ir	ment of renewable ga nportance for the ene	as ergy security of

urrent TYNDP : TYNDP	2020 - Annex A		Page 83 of 773
	Ben	efits	
Main Driver	Market Demand		
Main Driver Explanation			
Benefit Description	It will integrate gas markets of the Baltic states and Finland into a counterparties and increase of competition, enhance security and possibility to apply solidarity measures between Member States of and transmission infrastructure in Poland and Lithuania, and increa- their regional role.	l reliability of gas supply – both i of the EU in case of emergency, e	in terms of additional interconnection capacity and enable more flexible and efficient use of LNG terminals
	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have		
	received a decision	Applied for CEF	
Submissin Date		Applied for CEF Grants for studies	decision
	received a decision		decision Ye
Decision Date	received a decision 31/10/2013	Grants for studies	decision Ye Mln EUR 2.1
Decision Date Vebsite	received a decision 31/10/2013 11/08/2014	Grants for studies Grants for studies amount	decision Ye Mln EUR 2.: Ye
Submissin Date Decision Date Website Countries Affected Countries Net Cost Beare	received a decision 31/10/2013 11/08/2014 <u>CBCA URL</u> Estonia, Latvia, Lithuania	Grants for studies Grants for studies amount Grants for works	(1) Yes, we have applied for CEF and we have received a decision Yes Mln EUR 2.5 Yes Mln EUR 57.9

Comments

General Comments

## Gas Interconnection Poland-Lithuania (GIPL) - PL section

TRA-F-212	Project	Pipeline including CS	FID
Update Date	03/08/2020		Advanced
Description	GIPL aims to connect the gas transmission systems in Poland and Lithuania and, co the Baltic States (and Finland) with the Polish and EU gas markets. This will contribu competition and the security of gas supply. The project will also provide an access in Świnoujście. The construction of GIPL, except the above benefits for security and to connect the Baltic States to the CEE countries, thus providing strategic link betw of the project on the Polish side covers Hołowczyce - PL-LT border pipeline, CS Gus	ute to the creation of a regional gas marke to the global LNG market for the Baltic Sta I diversification of gas supplies in the Balti een the BEMIP and North-South East prior	et, enhancement of ates via the LNG terminal c region, will also allow rity corridors. The scope
PRJ Code - PRJ Name	PRJ-G-017 - Gas Interconnection Poland-Lithuania (GIPL)		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Internet DI LT	GAZ-SYSTEM S.A.	2021	LT	PL	58.30 GWh/d
Interconnector PL-LT	GAZ-SYSTEM S.A.	2021	PL	LT	73.90 GWh/d

Sponsors			General Information	NDP and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission	
		Operator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)	
		Host Country	Poland	NDP Number	N/A	
		Status	Planned	NDP Release Date		
		Website	Project's URL	NDP Website	<u>NDP URL</u>	
				Currently PCI	Yes (8.5 (2020))	
				Priority Corridor(s)		

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Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Gustorzyn				16	0
CS Hołowczyce - modernization					0
GIPL - Polish section		700	343		0
	Total		343	16	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Securi of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled	Market integration: - Completing a missing interconnection between PL and LT; - Connection of the gas markets in the East Baltic region with the continental gas market, lifting the isolation of the East Baltic region; - Creation of a well-integrated and functioning market in the East Baltic region. SoS: - Access to new sources of supply in the Baltic States and FI; - Mitigation of exposure to supply disruption via BY in the Baltic States; - Diversification of supply sources, routes and counterparts by bringing EU spot gas and NO supplies to the Baltic States and FI; - Reduction of dependence on gas supplies from RU in the Baltic States and FI. Competition: - Reduction of price differences between the East Baltic region and North-West regions. Sustainability: - Reduction of emissions in PL and the East Baltic region by promoting natural gas in national economies.
	Delays since last TYNDP
Delay Since Last TYNDP	Yes
Delay Explanation	
	Benefits
Main Driver	Others
Main Driver Explanation	Regulation SoS, market integration, sustainability
Benefit Description	The objective of the project is the integration of the isolated gas markets of the Baltic States into the EU gas grid by introducing an alternative gas supply route to the Baltic States. This interconnection will diversify the gas supply sources, increase the security of supply and enhance competition on the gas market in the Baltic States. For the Baltic States, GIPL will provide the access both to EU gas spot market and to the global LNG market via LNG terminal in Świnoujście. The implementation of the project will also contribute to creating better conditions for the use of the Latvian Inčukalns UGS for Lithuania's and, in future, for Poland's gas market participants. Also through GIPL, gas could be supplied to currently non-gasified areas in Poland and Lithuania.
	Barriers
Barrier Type	Description
Permit Granting	Efficient permitting procedures are necessary for timely implementation of the project.
Political	Lack of guarantees of covering entire project costs when the project is not commercially viable in all market scenarios (SoS project).
Others	Lack of guarantees of covering entire project costs when the project is not commercially viable in all market scenarios (SoS project). Risk of the lack of interest in capacity booking in the first period of operation due to immaturity of the gas markets in the Baltic States.
	Lack of market maturity

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	31/10/2013	Grants for studies	Yes
Decision Date	11/08/2014	Grants for studies amount	Mln EUR 8.0
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Estonia, Latvia, Lithuania	Grants for works amount	Mln EUR 240.3
Countries Net Cost Bearer	Poland	Intention to apply for CEF	No, we do not plan to apply
Additional Comments		Other Financial Assistance	Yes
		Comments	TEN-E: Study: Identification of the business case and feasibility study for the Gas Interconnection Poland- Lithuania. TEN-E: Environmental Impact Assessment documentation up to environmental decision obtainment for the Gas Interconnection Poland - Lithuania.
		General Comments	

## Additional transport of gas volumes to the Netherlands

TRA-A-808	Project	Pipeline including CS	Non-FID
Update Date	25/08/2020		Non-Advanced
Description	This Project extends the capacity towards the Netherlands via the new IP Zone process and divided into two offer level. In the first expansion step the capacities were reallocated from the IP "Bunde ( which is described in the project: "Reallocation H-Gas towards NL: Bunde/Oud The measure is an optimization of the GUD export infrastructure. The new IP offers the potential to increase the capacity with moderate technica	DE) / Oude Statenzijl (H) (NL) (GUD)" to the Zo e to Zone Oude Statenzijl H" ( TRA-N-809).	
PRJ Code - PRJ Name	PRJ-G-018 - Additional capacity at Oude Statenzijl from Germany to the Nethe	erlands	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Zone Oude Statenzijl H	Gasunie Deutschland Transport Services GmbH	2025	DEg	IB-NLg	175.20 GWh/d

Comment: Offer Level 1

Sponsors		C	General Information	NDP and PCI Information		
Compressor station Holtum - Reverse flow (only o level 2)	offer	Promoter	Gasunie Deutschland Transport Services GmbH	Part of NDP	No ((1) the NDP was prepared at an earlier date and the project will be	
Gasunie Deutschland Transport Services GmbH	62%	Operator	Gasunie Deutschland Transport Services GmbH	NDP Number	proposed for inclusion in the next NDP)	
Open Grid Europe GmbH	38%	Host Country	Germany	NDP Release Date		
Expansion Measurement Station Emden (Knock)		Status	Planned	NDP Website		
Gasunie Deutschland Transport Services GmbH	100%	Website		Currently PCI	No	
Expansion Measurement Station Folmhusen Gasunie Deutschland Transport Services GmbH	100%			Priority Corridor(s)		
Gasunie Deutschland Transport Services Ghibh	100 %					

#### С

Current TYNDP : TYI	NDP 2020 - Ann	nex A				Page 89 of 773
Schedule	Start Date	End Date			Third-Party Access R	egime
Pre-Feasibility					Considered TPA Regime	Regulated
Feasibility	01/2017	01/2017			Considered Tariff Regime	Regulated
FEED	01/2017	01/2018			Applied for Exemption	No
Permitting	01/2018	07/2019			Exemption Granted	Not Relevant
Supply Contracts						
FID					Exemption in entry direction	0.00%
Construction					Exemption in exit direction	0.00%
Commissioning	2025	2025				
Grant Obtention						
Date						
	-		Expected	d Gas Sourcing		
Russia	_		Expected			
			E	Benefits		
Main Driver	Market Dem	and				
Main Driver Explana	tion					
Benefit Description						

	СВСА	Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF		(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies		No
Culorizzia Data	not	Grants for studies amount		Mln EUR 0.0
Submissin Date		Grants for works		No
Decision Date		Grants for works amount		Mln EUR 0.0
Website		Intention to apply for CEF		No decision yet taken
Countries Affected		Other Financial Assistance		No
Countries Net Cost Bearer				110
Additional Comments		Comments		
		General Comments		

## Increase of Gas Transport to the Netherlands

TRA-A-496	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Advanced
Description	For security of supply reasons additional Gas volumes and capacities at the Dur Further earthquakes in the Netherlands force a reduction of the dutch L-Gas pr supply. Additional H-gas volumes could be blended in the Netherlands and pro The closure of an H-Gas undergrund storage in the Netherlands reduces the du The dutch demand could be covered by an earlier realiszation of the increment	roduction. This could decrease the security of the volution of the security of the volution of	-
PRJ Code - PRJ Name	PRJ-G-018 - Additional capacity at Oude Statenzijl from Germany to the Nethe	rlands	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Zone Oude Statenzijl H	Gasunie Deutschland Transport Services GmbH	2022	DEg	IB-NLg	175.20 GWh/d

Sponsors	Gene	eral Information	ND	PP and PCI Information
	Promoter	Gasunie Deutschland Transport Service GmbH	Part of NDP	No ((1) the NDP was prepared at an earlier date and the project will be
	Operator	Gasunie Deutschland Transport Services GmbH	NDP Number	proposed for inclusion in the next NDP)
	Host Country	Germany	NDP Release Date	
	Status	Planned	NDP Website	
	Website		Currently PCI	No
			Priority Corridor(s)	NSIW

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				ruge 52 of Tr
Schedule	Start Date	End Date	Third-Party Access Regi	ime
Pre-Feasibility			Considered TPA Regime	Regulat
Feasibility	01/2017	01/2017	Considered Tariff Regime	Regulat
EED	01/2017	01/2018	Applied for Exemption	
Permitting	01/2018	01/2019	Exemption Granted	1
Supply Contracts				
ID			Exemption in entry direction	0.00
Construction			Exemption in exit direction	0.00
Commissioning	2022	2022		
Grant Obtention				
Date				

 Fulfilled Criteria

 Specific Criteria Fulfilled
 Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes

 Specific Criteria Fulfilled Comments
 Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes

	Expected Gas Sourcing				
Norway, Russia					
	Benefits				
Main Driver	Others				
Main Driver Explanation	Further earthquakes in the Netherlands force a reduction of the L-Gas production. This could decrease the security of the german L-Gas supply. Additional H-gas volumes could be blended in the Netherlands and provided as L-gas to Germany. The closure of an H-Gas undergrund storage in the Netherlands reduces the dutch H-Gas capacity.				
Benefit Description					

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	CBCA	Financial Assistance			
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we have not yet decided whether we will submit or	Grants for studies	No		
	not	Grants for studies a	mount Mln EUR 0.0		
Submissin Date		Grants for works	No		
Decision Date		Grants for works am	nount Mln EUR 0.0		
Website		Intention to apply for	or CEE		
Countries Affected		Other Financial Assi			
Countries Net Cost Beare	r		Statice No		
Additional Comments		Comments			
		General Comments			

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# Reallocation H-Gas towards NL: Bunde/Oude to Zone Oude Statenzijl H

TRA-N-809		Project		Pipeline including	ding CS Non-FID	
Update Date		10/10/2019	Non-A			-Advanced
Description	The operating licence for the compressor units or a new c gas will be provided via Emc	H-Gas exit capacity towards the netherlands from the IF e compressor station Bunde will exeed due to emmissic onstruction of the units becomes necessary. In order to len (Zone Oude). This alternative routing will be realize e projects is a requirement for the projects regarding th	on law at th o avoid an o d by three	e end of 2024. An ov overhaul or a new bui smaller projects in GL	erhaul of the station Id of the compress JD grid.	on/ the sor station, the
PRJ Code - PRJ Name	PRJ-G-018 - Additional capa	city at Oude Statenzijl from Germany to the Netherland	ds			
Capacity Increments Vari						
Varia	ant : Reallocation SOS	Reallocation of Capacities Exit NL NDP for	SOS case			
Point		Operator	Year	From Gas System	To Gas System	Capacity
Bunde (DE) / Oude Statenzijl (H) (NL) (GUD)		Gasunie Deutschland Transport Services GmbH	2022	DEg	IB-NLg	-57.30 GWh/d
Zone Oude Statenzijl H		Gasunie Deutschland Transport Services GmbH	2022	DEg	IB-NLg	57.30 GWh/d
Capacity Increments Vari	ant(s) For Information Only					
Va	ariant : Reallocation	Reallocation of Capacities Exit NL NDP				
Point		Operator	Year	From Gas System	To Gas System	Capacity
Bunde (DE) / Oude State	nzijl (H) (NL) (GUD)	Gasunie Deutschland Transport Services GmbH	2025	DEg	IB-NLg	-57.30 GWh/d
				Comm	nent: Timeline NDF	0
Zone Oude Statenzijl H		Gasunie Deutschland Transport Services GmbH	2025	DEg	IB-NLg	57.30 GWh/d
Lone Odde Statenziji i i				Comment: Timeline NDP		

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rrent TYNDP : TYN	IDP 2020 - Ann	ex A				Page 95 of 773
Sponsors				General Information	NDP ar	nd PCI Information
Compressor Station Gasunie Deutschland	5		Promoter 73%	Gasunie Deutschland Transport Services GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018 2020
hyssengas GmbH			7% Operator	Gasunie Deutschland Transport Services GmbH	NDP Number NDP Release Date	ID504-01a; ID504-01b; ID504-0 20/03/201
Measuring Station F	olmhusen - Reve	erse Flow	Host Cou	ntry <i>Germany</i>	NDP Website	NDP UF
Gasunie Deutschland	d Transport Servic	ces GmbH 1	00% Status	Planned	Currently PCI	٨
New IP Knock ( Zone Gasunie Deutschland		es GmbH 1	Website		Priority Corridor(s)	NSIV
Schedule	Start Date	End Date			Third-Pa	arty Access Regime
Pre-Feasibility		01/2016			Considered TPA Regime	Regulate
easibility	06/2016	12/2016			Considered Tariff Regime	e Regulate
EED					Applied for Exemption	Λ
Permitting Supply Contracts					Exemption Granted	Not Relevar
ID					Exemption in entry direct	ion 0.009
Construction					Exemption in exit direction	on 0.00
Commissioning Grant Obtention Date	2022	2022				
				Fulfilled Criteria		
Specific Criteria Fulfill Specific Criteria Fulfill		ecurity of Supply	r, inter alia throug	gh appropriate connections and diversification	of supply sources, supplyir	ng counterparts and routes

### Norway, Russia

		Benefits
Main Driver	Market Demand	
Main Driver Explan	ation	
Benefit Description		

**Expected Gas Sourcing** 

	СВСА	F	inancial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturization Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer		Comments	
Additional Comments		General Comments	

# Additional import at Oude StatenZijl area

TRA-N-873	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	This projects enables additional flow at the interconnection point between TTF and Ga part of the incremental capacy process 2017.	spool. Investment measures are fores	een at Emden. Project is
PRJ Code - PRJ Name	PRJ-G-018 - Additional capacity at Oude Statenzijl from Germany to the Netherlands		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Virtual Ips (GTS) NL-DE (Gaspool)	Gasunie Transport Services B.V.	2022	IB-NLg	NL	228.00 GWh/d	
	Gasunie Transport Services B.V.	2025	IB-NLg	NL	60.00 GWh/d	
Zone Oude Statenzijl H	Gasunie Transport Services B.V.	2022	DEg	IB-NLg	228.00 GWh/d	
	Gasunie Transport Services B.V.	2025	DEg	IB-NLg	60.00 GWh/d	

Sponsors		General Information		ND	P and PCI Information
Gasunie Transport Services B.V.	100%	Promoter	Gasunie Transport Services B.V.	Part of NDP	Yes (Netwerk Ontwikkelingsplan 2017)
		Operator	Gasunie Transport Services B.V.	NDP Number	6.5.4.
		Host Country	Netherlands	NDP Release Date	30/11/2017
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website		Currently PCI	No
				Priority Corridor(s)	NSIW

rrent TYNDP : TYN	NDP 2020 - Ann	ex A	P
Schedule	Start Date	End Date	Third-Party Access Regime
Pre-Feasibility		08/2019	Considered TPA Regime
Feasibility	08/2019	10/2019	Considered Tariff Regime
FEED	01/2020	12/2021	Applied for Exemption
Permitting	01/2021	12/2022	Exemption Granted
Supply Contracts		12/2024	
FID		07/2019	Exemption in entry direction
Construction	02/2025	04/2025	Exemption in exit direction
Commissioning	2022	2025	
Grant Obtention			
Date			

 Fulfilled Criteria

 Specific Criteria Fulfilled
 Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes

 Specific Criteria Fulfilled Comments
 Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes

	Benefits
Main Driver	Market Demand
Main Driver Explan	nation
Benefit Descriptior	

	CBCA	Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Cultura Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF		
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Beare	r		110	
Additional Comments		Comments		
		General Comments		

# H-gas exit OSZ GTG Nord

TRA-F-307	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	Due to the reduction of production from the Groningen field, L-gas export from flow of H-gas via the existing L-gas border station Oude Statenzijl. This project		projects enables the
	Capacity will not be available separately, but will be marketed through a VIP as	of the start of operations	
PRJ Code - PRJ Name	PRJ-G-018 - Additional capacity at Oude Statenzijl from Germany to the Nethe	rlands	

Capacity Increments Variant For Modelling								
Point	Operator	Year	From Gas System	To Gas System	Capacity			
Runda (DE) ( Ouda Statan iii (II) (NII) (CTC Nord)	Gasunie Transport Services B.V.	2020	IB-NLg	DEg	25.40 GWh/d			
Bunde (DE) / Oude Statenzijl (H) (NL) (GTG Nord)	Gasunie Transport Services B.V.	2027	IB-NLg	DEg	76.20 GWh/d			
Vietual Ing (CTC) NU DE (Connoch)	Gasunie Transport Services B.V.	2020	NL	IB-NLg	25.40 GWh/d			
Virtual Ips (GTS) NL-DE (Gaspool)	Gasunie Transport Services B.V.	2027	NL	IB-NLg	76.20 GWh/d			

Sponsors	General Information		NDP and PCI Information	
	Promoter	Gasunie Transport Services B.V.	Part of NDP	Yes (Netwerk Ontwikkelingsplan 2017)
	Operator	Gasunie Transport Services B.V.	NDP Number	6.5.1
	Host Country	Netherlands	NDP Release Date	
	Status	Planned	NDP Website	<u>NDP URL</u>
	Website		Currently PCI	No
			Priority Corridor(s)	

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				. age tet et tre
Schedule	Start Date	End Date	Third-Party Access Reg	jime
Pre-Feasibility			Considered TPA Regime	Regulatea
Feasibility	11/2017	02/2018	Considered Tariff Regime	Regulatea
FEED	04/2018	12/2018	Applied for Exemption	No
Permitting	05/2019	09/2019	Exemption Granted	No
Supply Contracts		08/2019		
ID		02/2019	Exemption in entry direction	0.00%
Construction	10/2019	01/2020	Exemption in exit direction	0.00%
ommissioning	2020	2027		
Frant Obtention				
Date				

	Benefits
Main Driver	Market Demand
Main Driver Explanation	Due to the reduction of production from the Groningen field, L-gas export from the Netherlands to Germany is reduced. This projects enables the flow of H-gas via the existing L-gas border station Oude Statenzijl. This project is linked to a initiative of GTG Nord.
Benefit Description	

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	CBCA	Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturine Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF		
Countries Affected				
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
Additional comments		General Comments		

# Transferring L-gas infrastructure to H-gas

TRA-N-882	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	Due to the reduction of production from the Groningen field, L-gas export from the flow of H-gas via the existing L-gas border station Oude Statenzijl. Other IPs may fo Deutschland. For GTG nord had been submitted separetly, as this project has already taken FID		
PRJ Code - PRJ Name	PRJ-G-018 - Additional capacity at Oude Statenzijl from Germany to the Netherland	S	

Capacity Increments Variant For Modelling								
Point	Operator	Year	From Gas System	To Gas System	Capacity			
Bunde (DE) / Oude Statenzijl (H) (NL) (GUD)	Gasunie Transport Services B.V.	2020	IB-NLg	DEg	57.30 GWh/d			
	Gasunie Transport Services B.V.	2030	IB-NLg	DEg	135.00 GWh/d			
Virtual Inc (CTS) NL DE (Costract)	Gasunie Transport Services B.V.	2020	NL	IB-NLg	57.30 GWh/d			
Virtual Ips (GTS) NL-DE (Gaspool)	Gasunie Transport Services B.V.	2030	NL	IB-NLg	135.00 GWh/d			

Sponsors			General Information	ND	P and PCI Information
Gasunie Transport Services	100%	Promoter	Gasunie Transport Services B.V.	Part of NDP	Yes (Netwerk Ontwikkelingsplan 2017)
		Operator	Gasunie Transport Services B.V.	NDP Number	6.5.1
		Host Country	Netherlands	NDP Release Date	
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website		Currently PCI	No
				Priority Corridor(s)	

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				ruge to tot the
Schedule Start Date End Date			Third-Party Access	Regime
Pre-Feasibility			Considered TPA Regime	Regulate
easibility			Considered Tariff Regime	Regulate
EED			Applied for Exemption	N
Permitting			Exemption Granted	Not Relevan
Supply Contracts				
ID			Exemption in entry direction	0.009
Construction			Exemption in exit direction	0.009
Commissioning	2020	2030		
Grant Obtention				
Date				

	Benefits
Main Driver	Market Demand
Main Driver Explanation	Due to the reduction of production from the Groningen field, L-gas export from the Netherlands to Germany is reduced. This projects enables the flow of H-gas via the existing L-gas border station Oude Statenzijl. Other IPs may follow in the future. This project is linked to an initiative of Gasunie Deutschland.
Benefit Description	

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CBCA	Financial Assistance			
No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
	Grants for studies	No		
not	Grants for studies amount	Mln EUR 0.0		
	Grants for works	No		
	Grants for works amount	Mln EUR 0.0		
		Ne		
	Other Financial Assistance	No		
	Comments			
	General Comments			
		No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not Not Not Not Not Not Not Not Not Not N		

# Baltic Pipe project – onshore section in Denmark

TRA-A-780	Project	Pipeline including CS	Non-FID
Update Date	24/01/2020		Advanced
Description	<ul> <li>Reinforcement of the Danish Transmission System for transporting approx. 10 b (TRA-N-394) to the Baltic Pipe entry/exit point in DK. The project consists of conconstruction of a new offshore pipeline across the Little Belt, construction of a r new pipeline on Zealand from Kongsmark to the Baltic Sea offshore landfall at t Zealand.</li> <li>Former project name: "Nybro-Interconnector PL-DK - reinforcement"</li> <li>The project TRA-N-428 "(Mirror) Baltic Pipe" is included in this project.</li> </ul>	nstruction of a new onshore pipeline from Egtw new pipeline over Fyn from the Little Belt to Ny	ved to the Little Belt, yborg, construction of a
PRJ Code - PRJ Name	PRJ-G-021 - Baltic Pipe Project		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Interconnector DL DK	Energinet	2022	DK	PL	306.80 GWh/d
Interconnector PL-DK	Energinet	2022	PL	DK	91.10 GWh/d

Sponsors		General Information		NDP and PCI Information		
Energinet	100%	Promoter	Energinet	Part of NDP	No ((2) no NDP exists in the country)	
		Operator	Energinet	NDP Number		
		Host Country	Denmark	NDP Release Date		
		Status	Planned	NDP Website		
		Website	Project's URL	Currently PCI	Yes (8.3.1 (2020))	
				Priority Corridor(s)		

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Schedule	Start Date	End Date
re-Feasibility		
Feasibility	09/2015	12/2016
FEED	06/2018	02/2020
Permitting	12/2017	07/2019
Supply Contracts		10/2017
FID		11/2018
Construction	03/2020	10/2022
Commissioning	2022	2022
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Baltic Pipe project – onshore section	1,000	210	36	2022	
	Total		210	36	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying cour lifting the isolation of at least one Member State and reducing energy infrastru- of Supply, inter alia through appropriate connections and diversification of sup inter alia through reducing emissions, supporting intermittent renewable gener	cture bottlenecks, ir ply sources, supplyi	nteropera ng counte	bility and system flex erparts and routes, So	ibility, Security ustainability,
Specific Criteria Fulfilled Comments	Market integration: - Creation of a well-integrated and functioning market in the between PL and DK. SoS: - Diversification of supply sources, routes and counter regions and by allowing to import gas from the LNG terminal in Świnoujście in source in the CEE region; - Mitigation of exposure to supply disruption in the W linked to decreasing indigenous production in DK. Competition: - Reduction of Sustainability: - Reduction of emissions in the BEMIP and CEE regions by promo	rparts by bringing N DK and SE; - Reduc Vest Baltic and CEE I price differences be	lorwegiar tion of de regions; - etween th	n gas to the West Bal ependence on a singl Mitigation of negative e BEMIP and North-V	tic and CEE e supply ve impact

#### Norway

	Benefits	
Main Driver	Market Demand	
Main Driver Explanat	ation	
Benefit Description		
	Barriers	
Barrier Type	Description	
Regulatory	Limitations on duration of capacity contracts (15 years) increase project risks and thus impact investment incentives for project proj	promoters.
Permit Granting	All necessary permits from relevant authorities in several countries should be granted in time.	

Expected Gas Sourcing

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	27/10/2017	Grants for studies	Yes
Decision Date	27/02/2018	Grants for studies amount	Mln EUR 0.0
Website	<u>CBCA URL</u>	Grants for works	No
Countries Affected	Denmark, Poland, Sweden	Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	
	The Danish NRA (DERA) approved the CBCA on the	Other Financial Assistance	No
	27 February 2018. The Polish NRA (URE) approved the	Comments	
	CBCA on the 12 March 2018.	General Comments	

The Danish decision can be found here:

The Polish decision can be found here:

search=3253

http://energitilsynet.dk/gas/afgoerelser/tilsynsafgoerels er/2018/godkendelse-af-omkostningsfordelingen-

mellem-polen-og-danmark-for-baltic-pipe-projektet/

https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje/innedecyzje-informacj/3634,Inne-decyzje-informacjesprawozdania-opublikowane-w-2018-r.html?

Additional Comments

Generated by ENTSOG PDWS on 07/10/2020 03:33:04 PM

# Poland - Denmark interconnection (Baltic Pipe) - offshore section

TRA-A-271		Project			Pipeline including	g CS 💦 👔	Non-FID
Jpdate Date		15/08	3/2019			A	dvanced
Description	countries in the Baltic Sea reg diversify their supply potentia North Sea. The project is composed of th	at connecting the gas transmiss ion and Central-Eastern Europe. I (deliveries of LNG from the terr ne following investments that are (offshore section); onshore rece	The project will also brin minal in Świnoujście) in tl e mutually dependent and	g the op ne conte d hence	pportunity for the Da ext of declining produ each necessary for th	nish and Swedish uction in the Danis ne benefits and re	markets to sh part of the alization of the
PRJ Code - PRJ Name	PRJ-G-021 - Baltic Pipe Projec	t					
Capacity Increments Varia	Int For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
nterconnector PL-DK		GAZ-SYSTEM S.A.		2022	DK	PL	306.80 GWh/0
		GAZ-SYSTEM S.A.		2022	PL	DK	91.10 GWh/d
Sponsors		General Infor	rmation		NDP and	PCI Information	
GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part c		es (National Ten-Y	
		Operator	GAZ-SYSTEM S.A.		Sys	tem Development	
		Host Country	Poland		Number		N/.
		Status	Planned		Release Date		
		Website	Project's URL		Website		<u>NDP UR</u>
					ntly PCI		Yes (8.3.2 (2020)
				Priori	ty Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	03/2016	01/2017
FEED	08/2017	11/2019
Permitting	08/2017	04/2020
Supply Contracts		
FID		11/2018
Construction	04/2020	09/2022
Commissioning	2022	2022
Grant Obtention Date	15/04/2019	15/04/2019

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Baltic Pipe (offshore section)	The length ie estiamated between 260 -310km	900	280		0
Onshore pipeline connecting offshore pipeline with grid	1,000	40		0	
Onshore receiving terminal in Poland					0
	Total		320		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	Market integration: - Creation of a well-integrated and functioning market in the West Baltic region; - Completing a missing interconnection between PL and DK. SoS: - Diversification of supply sources, routes and counterparts by bringing Norwegian gas to the West Baltic and CEE regions and by allowing to import gas from the LNG terminal in Świnoujście in DK and SE; - Reduction of dependence on a single supply source in the CEE region; - Mitigation of exposure to supply disruption in the West Baltic and CEE regions; - Mitigation of negative impact linked to decreasing indigenous production in DK. Competition: - Reduction of price differences between the BEMIP and North-West regions. Sustainability: - Reduction of emissions in the BEMIP and CEE regions by promoting natural gas in national economies.

Delays since last TYNDP

Delay Since Last TYNDP

Delay Explanation

	Benefits
Main Driver	Others
Main Driver Explanatior	Regulation SoS, market integration and competition, sustainability
Benefit Description	Baltic Pipe will have a significant impact on: increasing security of supply in the CEE and Baltic Sea regions by diversifying supply routes, sources and counterparts; creating well-interconnected gas infrastructure in the Baltic Sea region; enhancing competition on the regional markets (CEE and the Baltic region); promoting natural gas as a reliable, competitive and environmentally-friendly source of energy e.g. in the power generation and transport sectors Baltic Pipe contributes also to the NSI EAST and BEMIP priority corridors, as the project will allow to transport gas from North Sea deposits to the CEE countries, namely to the CZ, SK and UA (via the North-South corridor in Poland, PL-CZ, PL-SK and PL-UA interconnections) and to the Baltic region (via GIPL to the East Baltic region). Since the project is bidirectional it will also provide the security of supply benefits for DK and SE (access to LNG).
	Barriers
Barrier Type	Description
Permit Granting	Efficient permitting procedures are necessary for timely implementation of the project.

CBCA		Financial Assistance
Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decisior
27/10/2016	Grants for studies	Yes
12/03/2018	Grants for studies amount	Mln EUR 0.0
	Grants for works	No
	Grants for works amount	Mln EUR 0.0
	Intention to apply for CEF	
	Other Financial Assistance	Yes
	Comments	TEN-E: "Baltic Pipe - Gas pipeline from Denmark to Poland - Pre-investment studies and authority process" TEN-E: "Baltic Pipe - Gas pipeline from Denmark to Poland – Geotechnical offshore survey, environmental monitoring programme and onshore gas quality study and receiving terminal in Poland
	General Comments	
	Yes, we have submitted an investment request and have received a decision 27/10/2016	Yes, we have submitted an investment request and have received a decision 27/10/2016 12/03/2018Applied for CEF27/10/2016 Grants for studies Grants for works Grants for works Grants for works amount Intention to apply for CEF Other Financial AssistanceGrams for works Comments

# Poland - Denmark interconnection (Baltic Pipe) - onshore section in Poland

TRA-A-1173			Proje	:t			Pipeline includi	ng CS	Non-FID
Update Date				15/08/2019				A	dvanced
Description	the Baltic Sea regions supply potential (c The project is com	on and Cen leliveries of posed of th	g the gas transmission systems in Poland and Denmark with a view of transporting Norwegian gas to the countries in ral-Eastern Europe. The project will also bring the opportunity for the Danish and Swedish markets to diversify their LNG from the terminal in Świnoujście) in the context of declining production in the Danish part of the North Sea. e following investments that are mutually dependent and hence each necessary for the benefits and realization of the Lwówek pipeline, CS Gustorzyn, CS Goleniów, CS Odolanów.						diversify their North Sea.
PRJ Code - PRJ Name	PRJ-G-021 - Baltic	Pipe Projec	t						
Capacity Increments Varian	t For Modelling								
Point			Operato	r	Y	ear	From Gas System	To Gas System	Capacity
Aggregated Distribution (Pl	L)		GAZ-SYS	TEM S.A.	20	022	DScPL	PL	0.00 GWh/d
Sponsors				General Information			NDP ar	d PCI Information	
Gas Transmission Operator	gaz-system s.a.	100%	Promoter Operator	GAZ-SYSTEM GAZ-SYSTEM		Part o		/es (National Ten-Y /stem Development	
			Host Country			NDP	Number		N/
			Status	Plar		NDP	Release Date		
			Website	Project's		NDP	Website		<u>NDP UR</u>
						Curre	ently PCI		Yes (8.3.2 (2020)
						Priori	ity Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	03/2016	01/2017
FEED	12/2017	02/2020
Permitting	12/2017	01/2020
Supply Contracts		
FID		11/2018
Construction	08/2020	09/2022
Commissioning	2022	2022
Grant Obtention Date	15/04/2019	15/04/2019

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Goleniów				12	0
CS Gustorzyn				15	0
CS Odolanów				14	0
Goleniów – Lwówek pipeline		1,000	191		0
	Total		191	41	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comment	The project is an internal enabler for the Baltic Pipe project - offshore section. The implementation of the project will have an impact on: Market integration: - Creation of a well-integrated and functioning market in the West Baltic region; - Completing a missing interconnection between PL and DK. SoS: - Diversification of supply sources, routes and counterparts by bringing Norwegian gas to the West Baltic and CEE regions and by allowing to import gas from the LNG terminal in Świnoujście in DK and SE; - Reduction of dependence on a single supply source in the CEE region; - Mitigation of exposure to supply disruption in the West Baltic and CEE regions; - Mitigation of negative impact linked to decreasing indigenous production in DK. Competition: - Reduction of price differences between the BEMIP and North-West regions. Sustainability: - Reduction of emissions in the BEMIP and CEE regions by promoting natural gas in national economies.
	Delays since last TYNDP

Delay Since Last TYNDP Delay Explanation

	Benefits
Vain Driver (	Others
Main Driver Explanation	Regulation SoS, market integration and competition
Senefit Description E	Baltic Pipe will have a significant impact on: increasing security of supply in the CEE and Baltic Sea regions by diversifying supply routes, sources and counterparts; creating well-interconnected gas infrastructure in the Baltic Sea region; enhancing competition on the regional markets (CEE and the Baltic region); promoting natural gas as a reliable, competitive and environmentally-friendly source of energy e.g. in the power generation and transport sectors Baltic Pipe contributes also to the NSI EAST and BEMIP priority corridors, as the project will allow to transport gas from North Sea deposits to the CEE countries, namely to the CZ, SK and UA (via the North-South corridor in Poland, PL-CZ, PL-SK and PL-UA interconnections) and to the Baltic region (via GIPL to the East Baltic region). Since the project is bidirectional it will also provide the security of supply benefits for DK and SE (access to LNG).
	Barriers
Barrier Type	Description
Permit Granting E	Efficient permitting procedures are necessary for timely implementation of the project.

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	CBCA	Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	27/10/2016	Grants for studies	Yes	
Decision Date	12/03/2018	Grants for studies amount	Mln EUR 0.0	
Website		Grants for works	No	
Countries Affected		Grants for works amount	Mln EUR 0.0	
Countries Net Cost Bearer		Intention to apply for CEF		
Additional Comments		Other Financial Assistance	No	
		Comments		
		General Comments		

# Czech-Polish Gas Interconnector (CPI)

TRA-A-136	Project	Pipeline including CS	Non-FID
Update Date	22/11/2019		Advanced
Description	The subject of the project (Czech part) is the construction of the DN 1000 gas pi and Polish transmission systems. It also includes upgrade of the existing compre- construct the robust bidirectional interconnector between Poland and the Czech operators of the Czech Republic (NET4GAS s.r.o.) and Poland (GAZ-SYSTEM S.A.) The Czech part of the CPI consists of the following subprojects: 1) Poland-Czech Republic interconnector (STORK II; PCI project No. 6.2.10), and 2) Tvrdonice-Libhošť pipeline, including upgrade of CS Břeclav (PCI project No. 6	essor station Břeclav on the Czech side. The air n Republic. Project is jointly coordinated by the )	m of the project is to
PRJ Code - PRJ Name	PRJ-G-022 - Poland - Czech Republic Interconnection		

Capacity Increments Variant For Mode	elling					
Point	Operator	Y	ear From	Gas System	To Gas System	Capacity
	NET4GAS, s.r.o.	20	023	CZ	PL	219.10 GWh/d
11-2		Comment: Exit from CZ to PL				
Hať	NET4GAS, s.r.o.	20	023	PL	CZ	153.20 GWh/d
				Comment:	Entry from PL to CZ	,
Sponsors	General Informa	tion		NDP and	d PCI Information	
Czech Republic	Promoter	NET4GAS, s.r.o.	Part of NDP	NDP Yes (CZ NDP 2019-2028 (approved))		

			,		( -	
NET4GAS, s.r.o.	100%	Operator	NET4GAS, s.r.o.	NDP Number		TRA-N-136
Poland		Host Country	Czechia	NDP Release Date		31/10/2018
Operator Gazociągów Przesyłowych GAZ-SYSTEM		Status	Planned	NDP Website		<u>NDP URL</u>
S.A.	100%	Website	<u>Project's URL</u>	Currently PCI		No
				Priority Corridor(s)		NSIE

urrent TYNDP : T	(NDP 2020 - Ann	ex A
Schedule	Start Date	End Date
Pre-Feasibility		08/2011
Feasibility	01/2009	12/2012

10/2017

09/2021

11/2021

08/2023

02/05/2018

2023

11/2014

02/2016

07/2021

02/05/2018

2023

FEED

FID

Date

Permitting

Construction

Commissioning

Grant Obtention

Supply Contracts

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Third-Party Access Regime	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipelines and Compressor Stat	ions				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Tvrdonice (CZ) - Hať (CZ/PL)	The pipeline length at CZ side is approx. 207.4 km (Tvrdonice-Hat). Upgrade of the existing compressor station Břeclav (CZ) is needed.	1,000	207	24	2023
	Total			24	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterpa lifting the isolation of at least one Member State and reducing energy infrastructure b of Supply, inter alia through appropriate connections and diversification of supply sou inter alia through reducing emissions, supporting intermittent renewable generation a	oottlenecks, ir urces, supplyi	nteropera ng counte	bility and system flex erparts and routes, S	ibility, Security ustainability,
Specific Criteria Fulfilled Comm	ents				
	Delays since last TYNDP				
Delay Since Last TYNDP	Delays since last TYNDP 4 years				

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**Expected Gas Sourcing** 

#### Norway, Russia, LNG (HR,PL)

				Benefits			
Main Driver	Others						
Main Driver Explanatio	n Competition,	, Market Integra	ation, Others				
Benefit Description	The Project benefits: (a) Increase cross-border capacity between PL and CZ by establishing a large corridor allowing flexible transport of gas in CEE in direction North-South; (b) Increase security of gas supply and reliability, providing the overall flexibility for CEE region and diversifying supply routes for the region; (c) Create a robust, well-functioning internal market in CZ and PL; (d) Contribute to the creation of integrated and competitive gas market in CEE region and thus decrease gas prices (d) the security of supply in the Northern Moravian and Silesian region where there is a capacity bottleneck. There is not enough transmission capacity in the area to cover winter peak demand (now covered also by gas from commercial UGS). Due to current low demand for storage capacity, operating the regional UGS might not be commercially viable in future. Without filled UGS and realization of the project, there would be 4-6 mcm/d of gas missing.						
				Barriers			
Barrier Type	Description						
Permit Granting	Lengthy pern	mitting process	at the Ministry of Regi	ional Development not reflecting the TEN-E regulation	n (EU) 347/2013.		
Political	Change of po	olitical decision	is, please see the MoUs	s in the Intergovernmental Agreement section.			
Regulatory	Low rate of r	eturn					
Regulatory	Lack of prope	er transpositior	n of EU regulation				
Market	Lack of mark	et support					
			h	ntergovernmental Agreements			
Agreement		Agreem	nent Description		Is Sig	gned	Agreement Signature Date
Memorandum of unde	rstanding		On the cooperation in the natural gas sector aimed at implementation of the Czech Republic- Poland Interconnection Project		Republic- Ye	es	06/09/2016
Memorandum of unde	rstanding		ect of expanded interc and Czech Republic (S <sup>-</sup>	onnection between gas transmission system of Repub TORK II)	plic of Ye	es	12/12/2016
Memorandum of understanding			cooperation in the nati Interconnection Projec	ural gas sector aimed at implementation of the Czech	Republic- Ye	es	20/04/2015

	CBCA	Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	31/10/2013	Grants for studies	Yes	
Decision Date	17/10/2014	Grants for studies amount	Mln EUR 1.0	
Website	<u>CBCA URL</u>	Grants for works	No	
Countries Affected	Czechia, Poland	Grants for works amount	Mln EUR 0.0	
Countries Net Cost Bearer	Czechia;#Poland	Intention to apply for CEF	No decision yet taken	
Additional Comments		Other Financial Assistance	Yes	
		Comments	TEN-E, 371 622 EUR	
		General Comments		

# Poland - Czech Republic Gas Interconnection (PL section)

TRA-A-273	Project	Pipeline including CS	Non-FID
Update Date	22/11/2019		Advanced
Description	The project aims to increase the cross-border capacity between Poland and the C will allow flexible transport of gas in Central-Eastern Europe within the North-Sou reinforcement of the effective operation of the gas transmission systems, efficien security of supply not only for Poland and the Czech Republic, but also for the Cl terminal in Świnoujście and Norwegian gas via the Baltic Pipe project.	uth corridor. The development of the project at gas exchange between the markets, as well	will contribute to as increase of the
PRJ Code - PRJ Name	PRJ-G-022 - Poland - Czech Republic Interconnection		

<b>Capacity Increments Var</b>	iant For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
Hať	GAZ-SYSTEM S.A.	2023	CZ	PL	219.10 GWh/d
	GAZ-SYSTEM S.A.	2023	PL	CZ	153.20 GWh/d

Sponsors		General Information	NDP and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A. 100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission	
	Operator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)	
	Host Country	Poland	NDP Number	N/A	
	Status	Planned	NDP Release Date		
	Website	Project's URL	NDP Website	<u>NDP URL</u>	
		-	Currently PCI	No	
			Priority Corridor(s)	NSIE	

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	07/2015	12/2017
Permitting	07/2016	12/2017
Supply Contracts		
FID		
Construction		
Commissioning	2023	2023
Grant Obtention		
Date		

Pipelines and Compressor Sta	itions				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
PL-CZ Interconnection - Polish	section	1,000	53		0
	Total		53		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplied lifting the isolation of at least one Member State and reducing energy of Supply, inter alia through appropriate connections and diversification of supply.	infrastructure bottlenecks, in	nteropera	ability and system flex	kibility, Security

inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

LNG ()

Expected Gas Sourcing

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	Benefits
Main Driver	Others
Main Driver Explanation	n Regulation SoS and market integration, sustainability
Benefit Description	Implementation of Poland-Czech Republic Interconnection will have an impact on: providing overall flexibility for the CEE region, diversifying the supply sources and routes for the CEE region; increasing the security and reliability of the cross-border gas transmission between the Czech Republic and Poland; creating a robust, well-functioning internal market in the Czech Republic and Poland and promoting the competition.

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	31/10/2013	Grants for studies	Yes
Decision Date	24/06/2014	Grants for studies amount	Mln EUR 0.6
Website	<u>CBCA URL</u>	Grants for works	No
Countries Affected		Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

#### LNG Terminal Brunsbuettel

LNG-A-1198		Project			LNG Termin	al	Non-FID
Update Date			15/08/2019			Nor	n-Advanced
	Construction of the first scale LNG services.	German LNG Terminal in B	Brunsbuettel (Hamburg Area), a full s	service te	erminal which inclu	des regas, reloadin	g and small
Description	The Terminal project aim	ns to take FID end of 2019-	-early 2020.				
	The connecting projects	will be part of the upcomi	ng NEP.				
PRJ Code - PRJ Name	PRJ-G-023 - LNG Termin	al Brunsbuettel					
Capacity Increments Vari	ant For Modelling						
Point		Operator		Year	From Gas System	n To Gas System	Capacity
Brunsbuettel (DE)		GermanLNG	G Terminal GmbH	2023	LNG_Tk_DEg	DEg	256.20 GWh/d
Sponsors		Ge	eneral Information		NDP ar	nd PCI Information	
		Promoter	GermanLNG Terminal GmbH			((4) there is no oblig	
		Operator	GermanLNG Terminal GmbH	Part of	f NDP lev	el for such a project	to be part of the NDF
		Host Country	Germany	, NDP N	lumber		NDF
		Status	Planned	1	lelease Date		
		Website	<u>Project's URL</u>		Vebsite		
				Currer			N
					y Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		12/2016
Feasibility	01/2017	03/2018
FEED	04/2018	06/2019
Permitting	08/2019	10/2020
Supply Contracts		12/2019
FID		12/2019
Construction	10/2020	05/2023
Commissioning	2023	2023
Grant Obtention		
Date		

		Technical Information (L	NG)				
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning I Year	oad Factor. (%)
LNG Terminal Brunsbüttel (German LNG)	No One	8.0 267,000	21.40	240,000	Tank Capacity	2023	50

	Expected Gas Sourcing
LNG (WO)	
	Benefits
Main Driver	Market Demand
	Regasification capacity adds liquidity, competition and security of supply in the German market by import diversification; the small scale services help to increase the market demand of LNG as a fuel towards the reduction of CO2 emissions in transport applications.
Benefit Description	See above

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	CBCA	-	Financial Assistance
Decision Submissin Date Decision Date Website Countries Affected Countries Net Cost Bearer	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	<ul> <li>Applied for CEF</li> <li>Grants for studies</li> <li>Grants for studies amount</li> <li>Grants for works</li> <li>Grants for works amount</li> <li>Intention to apply for CEF</li> <li>Other Financial Assistance</li> </ul>	(3) No, we have not applied for CEF No Mln EUR 0.0 No Mln EUR 0.0 No decision yet taken No
Additional Comments		Comments General Comments	We are discussion the application for funding under the "GRW, Koordinierungsrahmen der Gemeinschaftsaufgabe der regionalen Wirtschaftsstruktur", a decision can be expected by the end of 2019.

# LNG Terminal Brunsbuettel - Grid Integration

TRA-A-1199	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	Construction of the first German LNG Terminal in Brunsbuettel (Hamburg Area). This project shows the measures for the integration of the LNG Terminal in the G station at the connecting point to the GUD grid and an extension of an existing n	5 5	A second s
PRJ Code - PRJ Name	PRJ-G-023 - LNG Terminal Brunsbuettel		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Brunsbuettel (DE)	Gasunie Deutschland Transport Services GmbH	2023	LNG_Tk_DEg	DEg	256.20 GWh/d

Sponsors		General Information	ND	P and PCI Information
	Promoter	Gasunie Deutschland Transport Service GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018- 2028)
	Operator	Gasunie Deutschland Transport		ID300-01
	operator	Services GmbH	NDP Release Date	20/03/2019
	Host Country	Germany	NDP Website	<u>NDP URL</u>
	Status	Planned	Currently PCI	No
	Website		Priority Corridor(s)	

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Schedule	Start Date	End Date
Pre-Feasibility		07/2018
Feasibility	07/2018	03/2019
FEED	04/2019	06/2020
Permitting	07/2020	08/2021
Supply Contracts		01/2020
FID		10/2020
Construction	08/2021	10/2022
Commissioning	2023	2023
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Brunsbuettel-Hetlingen		800	57		2022
	Total		57		
	Expected Gas Sourcing				

#### LNG (WO)

	Benefits	
1ain Driver	Market Demand	
Main Driver Explanatior		
Benefit Description		

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	CBCA	Financi	al Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturine Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	
Countries Affected			
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
Additional comments		General Comments	

# Poland - Ukraine Gas Interconnection (PL section)

TRA-A-621	Project	Pipeline including CS	Non-FID
Update Date	20/09/2019		Advanced
Description	The objective of the project is to create a large transportation corridor between the construction of a new gas pipeline between the Hermanowice gas node on t of the Project on the Polish side: Hermanowice-PL/UA border pipeline; Metering development in: extension of CS Strachocina	he Polish side and Bliche Volytsia UGS on the	e Ukrainian side. Scope
PRJ Code - PRJ Name	PRJ-G-028 - Poland - Ukraine Gas Interconnection		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
PL>UA Interconnector	GAZ-SYSTEM S.A.	2022	PL	UAe	153.20 GWh/d
UA>PL Interconnector	GAZ-SYSTEM S.A.	2022	UA	PL	153.20 GWh/d

Sponsors			General Information	ND	P and PCI Information
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission
		Operator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)
		Host Country	Poland	NDP Number	N/A
		Status	Planned	NDP Release Date	
		Website	Project's URL	NDP Website	NDP URL
				Currently PCI	No
				Priority Corridor(s)	NSIE

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	09/2016	06/2019
Permitting	10/2016	02/2019
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Hermanowice Node - PL/UA border	pipeline The exact length - 1,5km	1,000	2		0
Metering station in Poland					0
	Total		2		
	Fulfilled Criteria				
Specific Criteria Fulfilled Specific Criteria Fulfilled Comments	Competition, inter alia through diversification of supply sources, supply lifting the isolation of at least one Member State and reducing energy in of Supply, inter alia through appropriate connections and diversification inter alia through reducing emissions, supporting intermittent renewable	nfrastructure bottlenecks, i n of supply sources, supply	nteropera ng count	bility and system flex erparts and routes, S	kibility, Security ustainability,
	Delays since last TYNDP				
Delay Since Last TYNDP					
Delay Explanation	The dialogue between the TSOs of both countries is ongoing in order to PL-UA interconnection. Therefore, launching of the construction works i			ositive FID for implem	entation of the

# Expected Gas Sourcing LNG () Benefits

	Denend
Main Driver	Others
Main Driver Explanation	
	The project will contribute towards: establishment of a well-integrated gas market in the region (PL, UA, CZ, SK, HU, RO, MD); diversification of gas routes
Benefit Description	and sources for Ukraine; enhancement of security of gas supply for Ukraine; reducing dependency on single gas supplier for Ukraine; strengthening energy

solidarity between EU Energy Community and EU contracting countries; access to the gas storages in Ukraine for Poland and EU countries.

CBCA		Financial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we do not plan to submit it	Grants for studies	No	
Submissin Date		Grants for studies amount	Mln EUR 0.0	
Decision Date		Grants for works	No	
Website		Grants for works amount	Mln EUR 0.0	
Countries Affected		Intention to apply for CEF		
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		



# Poland-Ukraine Interconnector (Ukrainian section)

TRA-A-561	Project	Pipeline including CS	Non-FID
Update Date	15/06/2020		Advanced
Description	The objective of the project is to create a large transportation corridor between Po the construction of a new gas pipeline between the Hermanowice gas node on the of the Project on the Polish side: Pipeline Hermanowice-PL/UA border; Metering st transmission system development in Poland: Pipeline Hermanowice-Strachocina; P Tworzeń; Pipeline Tworóg-Tworzeń. Scope of the project on the Ukrainian side: PL/	Polish side and Bliche Volytsia UGS on the ation in Poland; Extenstion of CS Strachoci ipeline Strachocina-Pogórska Wola; Pipelin	e Ukrainian side. Scope na; Necessary additional ne Pogórska Wola-
PRJ Code - PRJ Name	PRJ-G-028 - Poland - Ukraine Gas Interconnection		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
PL>UA Interconnector	LLC Gas TSO of Ukraine	2022	PL	UAe	153.20 GWh/d
UA>PL Interconnector	LLC Gas TSO of Ukraine	2022	UA	PL	153.20 GWh/d

Sponsors			General Information	NDP and PCI Information	
Ukrtransgaz	100%	Promoter	LLC Gas TSO of Ukraine	Part of NDP	No ((2) no NDP exists in the country)
		Operator		NDP Number	
		Host Country	Ukraine	NDP Release Date	
		Status	Planned	NDP Website	
		Website		Currently PCI	No
				Priority Corridor(s)	

Current TYNDP : TY	NDP 2020 - Ann	lex A		
Schedule	Start Date	End Date		Th
Pre-Feasibility		02/2016	Conside	lered TPA Regi
easibility	01/2015	12/2016	Conside	lered Tariff Regi
EED	12/2016	07/2018	Applied	d for Exemption
Permitting	12/2016	09/2018	Exempt	tion Granted
Supply Contracts				
FID			Exempt	tion in entry directi
Construction	08/2018	03/2020	Exempt	tion in exit direction
Commissioning	2022	2022		
Grant Obtention				
Date				

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Drozdovychi - Bilche Volytsya		1,000	99	0	2022
	Total		99	0	

Esc		Case	
EX	pected	Gas S	ourcind

Norway, LNG (PL)

	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	Competition, Market Integration, Security of Supply, Sustainability
Benefit Description	The project will contribute towards: establishment of a well integrated gas market in the region (PL, UA, CZ, SK, HU, RO, MD); diversification of gas routes and sources for Ukraine; enhancement of security of gas supply for Ukraine; reducing dependency on single gas supplier for Ukraine; strengthening energy solidarity between the EU and Energy Community contracting countries; access to the gas storages in Ukraine for Poland and EU countries.

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CBCA		ial Assistance
o, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
but we do plan to submit it	Grants for studies	No
	Grants for studies amount	Mln EUR 0.0
	Grants for works	No
	Grants for works amount	Mln EUR 0.0
	Intention to apply for CEF	No, we do not plan to apply
	Other Financial Assistance	No
	Comments	
	General Comments	
	o, we have not submitted an investment request yet, but we do plan to submit it	but we do plan to submit it Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF Other Financial Assistance Comments

# Embedding CS Folmhusen in H-Gas

TRA-A-951	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	Embedding of the Compressor Station Folmhusen in H-Gas. This project is linked to the GTS project "TRA-N-882".	the L- to H-Gas conversion in Germany.	The project is linked to
PRJ Code - PRJ Name	PRJ-G-030 - Transferring L-gas infrastructure to H-gas		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Bunde (DE) / Oude Statenzijl (H) (NL) (GUD)	Gasunie Deutschland Transport Services GmbH	2020	IB-NLg	DEg	57.30 GWh/d	
Bunde (DE) / Oude Statenzijl (L) (NL) (GUD)	Gasunie Deutschland Transport Services GmbH	2020	IB-NLg	DEgL	-57.30 GWh/d	

Sponsors	(	General Information	NDP and PCI Information		
	Promoter	Gasunie Deutschland Transport Services GmbH	Part of NDP	Yes (NEP Gas 2015; NEP Gas 2016-2026; NEP Gas 2018-2028)	
	Operator	Gasunie Deutschland Transport		ID 300-02	
	operator	Services GmbH	NDP Release Date	20/03/2019	
	Host Country	Germany	NDP Website	<u>NDP URL</u>	
	Status	Planned	Currently PCI	No	
	Website		Priority Corridor(s)		

End Date 01/2015 01/2015 12/2016	Third-Party Access R Considered TPA Regime Considered Tariff Regime	Regime Regulated Regulated
01/2015	Considered Tariff Regime	-
		Reaulated
12/2016		
	Applied for Exemption	Not Relevan
	Exemption Granted	Not Relevan
	Exemption in entry direction	0.009
	Exemption in exit direction	0.00%
2020		
0	0 2020	Exemption in exit direction

#### **Expected Gas Sourcing**

#### Norway, Russia

	Benefits
Main Driver	Others
Main Driver Explana	ation
Benefit Description	

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	CBCA	Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturine Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF		
Countries Affected				
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
Additional comments		General Comments		

# GUD: Complete conversion to H-gas

TRA-N-955	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	Complete conversion of the grid from L- to H-gas in the year 2030. Use of the e project "H-Gas conversion of L-Gas export boarder point (TRA-N-882)". On the excisting infrastructure will be used. This project does not cover the conversion of the appliances.		
PRJ Code - PRJ Name	PRJ-G-030 - Transferring L-gas infrastructure to H-gas		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Bunde (DE) / Oude Statenzijl (H) (NL) (GUD)	Gasunie Deutschland Transport Services GmbH	2030	IB-NLg	DEg	135.00 GWh/d
Bunde (DE) / Oude Statenzijl (L) (NL) (GUD)	Gasunie Deutschland Transport Services GmbH	2030	IB-NLg	DEgL	-135.00 GWh/d
	Gasunie Deutschland Transport Services GmbH	2021	STcDEgL	DEgL	-48.90 GWh/d
UGS Lesum	Gasunie Deutschland Transport Services GmbH	2021	DEgL	STcDEgL	-10.70 GWh/d
Zone L-Gas GUD/OGE	Gasunie Deutschland Transport Services GmbH	2027	DEgL	DEnL	-42.00 GWh/d

Sponsors		General Information	NDP and PCI Information		
	Promoter	Gasunie Deutschland Transport Services GmbH	Part of NDP	Yes (NEP Gas 2014; NEP Gas 2015; NEP Gas 2016-2026; NEP Gas 2018-2028)	
	Operator	Gasunie Deutschland Transport Services GmbH	NDP Number NDP Release Date	ID 221-01 ID; ID 222-02; ID 223-01 20/03/2019	
	Host Country	Germany	NDP Website	NDP URL	
	Status	In Progress	Currently PCI	No	
	Website		Priority Corridor(s)		

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Schedule	Start Date	End Date	Third-Party Access R	legime
Pre-Feasibility			Considered TPA Regime	Regula
Feasibility			Considered Tariff Regime	Regula
FEED			Applied for Exemption	Not Releva
Permitting			Exemption Granted	Not Releva
Supply Contracts				
FID			Exemption in entry direction	0.00
Construction	01/2019	12/2029	Exemption in exit direction	0.00
Commissioning	2021	2030		
Grant Obtention				
Date				
			Expected Gas Sourcing	

# Norway, Russia

	Benefits	
Main Driver	Others	
lain Driver Explana	nation	
enefit Description	n	

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CBCA		Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culoriaria Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF	No decision yet taken	
Countries Affected		Other Financial Assistance	No accision yet taken	
Countries Net Cost Beare			110	
Additional Comments		Comments		
		General Comments		

# Oude(NL)-Bunde(DE) GTG H-Gas

TRA-F-949	Project	Pipeline including CS	FID			
Update Date	18/11/2019		Non-Advanced			
Description	This projects creates a new interconnection point for H-Gas between the Netherlands and Germany and provide blendingcapacities from H- to L- Gas. The new H-Gas-capacities helps for the L-H-Gas conversion in Germany					
PRJ Code - PRJ Name	PRJ-G-030 - Transferring L-gas infrastructure to H-gas					

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Gastransport Nord GmbH	2020	IB-NLg	DEg	25.40 GWh/d
	Comment: The H-Gas capacity is only used for blending and can not be transported without L- Gas flow				
	Gastransport Nord GmbH	2021	IB-NLg	DEg	25.40 GWh/d
	Comment: The H-Gas capacity is only used for blending and can not be transported without L- Gas flow				
	Gastransport Nord GmbH	2022	IB-NLg	DEg	25.40 GWh/d
	Comment: The H-Gas capacity is only used for blending and can not be transported without L- Gas flow				
	Gastransport Nord GmbH	2023	IB-NLg	DEg	25.40 GWh/d
Bunde (DE) / Oude Statenzijl (H) (NL) (GTG Nord)	Comment: The H-Gas capacity is only used for blending and can not be transported without L- Gas flow				
	Gastransport Nord GmbH	2024	IB-NLg	DEg	25.40 GWh/d
	Comment: The H-Gas capacity is only used for blending and can not be transported without L- Gas flow				
	Gastransport Nord GmbH	2025	IB-NLg	DEg	25.40 GWh/d
	Comment: The H-Gas capacity is only used for blending and can not be transported without L- Gas flow				
	Gastransport Nord GmbH	2026	IB-NLg	DEg	25.40 GWh/d
	Comment: The H-Gas capacity is only used for blending and can not be transported without L- Gas flow				

Current TYNDP : TY	NDP 2020 - Ann	ex A					Page 144 of 773
Bunde (DE) / Oude	Statenzijl (H) (NL)	(GTG Nord)	Gastransport	Nord GmbH	2027 IB-NLg	DEg	76.20 GWh/d
Sponsors			Gen	eral Information	Ν	DP and PCI Informatic	n
			Promoter	Gastransport Nord GmbH	Part of NDP	Yes (Netzentwicklung	
			Operator	Gastransport Nord GmbH			-2028)
			Host Country	Germany	NDP Number		432-02b
			Status	Planned	NDP Release Date		20/03/2019
			Website		NDP Website		<u>NDP URL</u>
					Currently PCI		No
					Priority Corridor(s)		
Schedule	Start Date	End Date			Thi	ird-Party Access Regir	ne
Pre-Feasibility		01/2016			Considered TPA Reg	gime	Regulated
Feasibility	01/2016	01/2017			Considered Tariff Re	egime	Regulated
FEED	01/2017	01/2018			Applied for Exempti	on	Yes
Permitting	01/2018	01/2019			Exemption Granted		Yes
Supply Contracts		06/2019					
FID		04/2018			Exemption in entry	direction	0.00%
Construction	07/2019	12/2019			Exemption in exit di	rection	0.00%
Commissioning	2020	2027					

Expected Gas Sourcing

Norway, Russia

Grant Obtention

Date

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Benefits					
Main Driver	Market Demand				
Main Driver Explana	ation				
Benefit Description					
		Barriers			
Barrier Type	Description				
Others	The H-Gas capacity is used for blending into th	ne L-Gas flow. If the gasquality changes to a higher Wobbe, the capacity of H-Gas blending will be lower.			

	СВСА	Finar	ncial Assistance
Decision	No, we have submitted an investment request, but not	Applied for CEF	(3) No, we have not applied for CEF
Decision	received a decision yet	Grants for studies	No
Submissin Date	30/03/2018	Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

TRA-F-752	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	The project "Capacity4Gas – DE/CZ" is a subproject of the overall project Capacitization of an additional regulated entry capacity into the Czech gas transmiss interconnection point at the German-Czech border, upgrade of existing comprese pipeline infrastructure. The project is jointly coordinated by the transmission syst (EUGAL shareholders). The project results from capacity bookings from the bind	ssion system. Those measures are in particular essor stations, building a new compressor stat stem operators of the Czech Republic (NET4G	r: establishing a new ion and extending the
PRJ Code - PRJ Name	PRJ-G-034 - More capacity – DE/CZ Capacity4Gas Project		

Point		Operator		Year	From Gas System	To Gas System	Capacity
		NET4GAS, s.r.o.		2019	Y-CZb	CZ	665.00 GWh/d
VIP Brandov-GASPOOL (N4G)	Comment: Stage 1. The incremental capacity represents approx. entry capacity extension between the market areas of DE (Gaspool) and CZ.						
		NET4GAS, s.r.o.		2021	Y-CZb	CZ	454.00 GWh/d
						Comment: Stage 2	•
Sponsors		General	Information		NDP and	PCI Information	
Czech Republic		Promoter	NET4GAS, s.r.o.	Part of	f NDP	es (CZ NDP 2019-	2028 (approved))
NET4GAS, s.r.o.	100%	Operator	NET4GAS, s.r.o.	NDP N	lumber		TRA-F-752
Germany		Host Country	Czechia	NDP R	Release Date		31/10/2018
EUGAL (shareholders: GASCADE, Fluxys DE,		Status	In Progress	NDP V	Vebsite		NDP URL
	100%	Website	Project's URL	Currer	thy PCI		No
Gasunie DE, ONTRAS)		vvebsite	FTOJECT S OKL	Currer	itiy i Ci		110

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Schedule	Start Date	End Date
Pre-Feasibility		03/2017
Feasibility	03/2017	10/2017
FEED	07/2017	06/2019
Permitting	07/2017	12/2019
Supply Contracts		01/2020
FID		03/2017
Construction	06/2018	09/2021
Commissioning	2019	2021
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
HSK-Přimda	Stage 1. The project comprises several technical measures, which factually leads to increase of entry capacity between DE (Gaspool) and CZ.	1,400	2	25	2019
	Stage 2.	1,400	150		2021
	Total		152	25	

Expected Gas Sourcing

		curcing
Norway, Russia		
	Benefits	
Main Driver	Market Demand	
Main Driver Explan	nation Result of the capacity auction.	
Benefit Description	1	
benent beschption		

	CBCA	Financ	ial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

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# EUGAL - Europaeische Gasanbindungsleitung (European Gaslink)

TRA-F-763	Project	Pipeline including CS	FID			
Update Date	18/09/2020		Advanced			
	This project includes the Receiving Terminal Lubmin II, the pipeline EUGAL, regulation and measuring), a compressor station near Radeland, and a stati Deutschneudorf.					
Description						
PRJ Code - PRJ Name	PRJ-G-034 - More capacity – DE/CZ Capacity4Gas Project					

Capacity Increments Variant For Modelling								
Point	Operator	Year	From Gas System	To Gas System	Capacity			
	GASCADE Gastransport GmbH	2019	DEg	Y-CZb	598.36 GWh/c			
		Co	omment: Level 1 (excl.	reservation quota	)			
	GASCADE Gastransport GmbH	2020	DEg	Y-CZb	408.95 GWh/c			
Deutschneudorf EUGAL Brandov	Comment: Level 2, on top of Lev	vel 1 - in total	1,007.31 GWh/d (excl.	reservation quota	)			
	GASCADE Gastransport GmbH	2022	DEg	Y-CZb	-111.92 GWh/d			
	Comment: Reduction on Level 2 due to increase of reservation quota according to NC CAM - in total 895.39 GWh/d							
	GASCADE Gastransport GmbH	2019	RU/NO2	DEg	962.42 GWh/c			
Laborate II				Comment: Level	1			
Lubmin II	GASCADE Gastransport GmbH	2020	RU/NO2	DEg	778.94 GWh/c			
	Comm	Comment: Level 2, on top of Level 1 - in total 1741.38 GWh/d						
Mallnow	GASCADE Gastransport GmbH	2020	DEg	PL/YAM	146.33 GWh/d			
	GASCADE Gastransport GmbH	2019	DEg	Y-CZb	66.48 GWh/d			
VIP Brandov-GASPOOL	Comment: Level 1, due to the dual system in Germany, capacity out of reservation quota is shifted and market via VIP Brandov-GASPOOL							

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urrent TYNDP : TYNDP 2020 - Anne	x A							Page 150 of 773	
				Gastransport GmbH	2020	DEg	Y-CZb	45.44 GWh/c	
			Comment: Level 2, due to the dual system in Germany, capacity out of reservation quota is shifted and market via VIP Brandov-GASPOOL						
VIP Brandov-GASPOOL			GASCADE	Gastransport GmbH	2022	DEg	Y-CZb	111.92 GWh/d	
				nt: Increase on Level 2, due to the du					
				quoto	is shifted al	nd market via VIP	Brandov-GASPOC	)L	
Sponsors				General Information		NDP an	d PCI Informatior	1	
GASCADE Gastransport GmbH		50%	Promoter	GASCADE Gastransport/Fluxy Deutschland GmbH / GU		NDP Y	es (Netzentwicklu	ngsplan Gas 2018 2028	
Fluxys Deutschland GmbH		16%		GmbH&Co.KG / ONTRAS GmbH		mber	412-03, 507-01a,b,c		
Gasunie Deutschland GmbH & Co. KG		16%	Operator	GASCADE Gastransport Gmb	H NDP Rel	lease Date		20/03/2019	
ONTRAS Gastransport GmbH		16%	Host Country	Germar	Y NDP We	ebsite		NDP UR	
			Status	In Progre		y PCI		N	
			Website	<u>Project's Ul</u>	Priority	Corridor(s)			
Schedule Start Date	End Date					Third-Pa	rty Access Regim	е	
Pre-Feasibility					Conside	red TPA Regime		Regulated	
Feasibility					Conside	red Tariff Regime		Regulated	
FEED						for Exemption		No	
Permitting Supply Contracts					Exemptio	on Granted		Not Relevan	
FID	06/2018				Exemptio	on in entry directi	on	0.00%	
Construction						on in exit direction		0.00%	
Commissioning 2019	2022								
Grant Obtention									
Date									

Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
AL NEL		the following project is related to it: - Gas pressure control and measuring station Lubmin-NEL	1,000	1		2019
EUGAL		the following projects are related to it: - Gas pressure control and measuring stations Radeland II, and Deutschneudorf-EUGAL - CS Radeland II - Receiving Terminal Lubmin II ; Partially commissioning year 2020	1,400	484	75	2019
	Total			485	75	

**Expected Gas Sourcing** 

Russia, VHP GASPOOL

	Benefits
Main Driver	Market Demand
Main Driver Explanation	The project will satisfy market demand that was expressed through binding capacity bookings in the context of "more capacity". The market demand is proven by the successful auctioning of the new capacities in the yearly auctions of 2017 that also proves the economic viability of the project.
Benefit Description	The "more capacity" projects - especially in combination with the other projects within PRJ group "More capacity - DE/CZ Capacity4Gas Project" - will enhance market integration, security of supply, sustainability, and competition within Europe.

	СВСА	Fina	ncial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

# Upgrade for IP Deutschneudorf et al. for More Capacity

TRA-F-814	Project	Pipeline including CS	FID
Update Date	18/11/2019		Non-Advanced
Description	<ol> <li>New PRMS Kienbaum II incl. connection to EUGAL pipeline with two metering gas from EUGAL pipeline; due Dec. 2019.</li> <li>Upgrade of pressure security system at Börnicke PRMS by installing a secondownstream grid for increasing transit from East (Kienbaum) to West, due end 3. Upgrade of PRMS at Steinitz with an additional metering/control system for interconnector, due Dec. 2019.</li> <li>Upgrade of Groß Köris PRMS with new metering/control system for gas transit. Renewal of Sayda compressor station to ensure increasing transit and presson</li> </ol>	d control system to ensure operating pressure of 2019. gas transmission from FGL 302 pipeline towar nsmission to IP Deutschneudorf, due Dec. 2019.	level of max. 84 bar in ds NETRA
PRJ Code - PRJ Name	PRJ-G-034 - More capacity – DE/CZ Capacity4Gas Project		

Sponsors			General Information	ND	PP and PCI Information
Compressor station Sayda		Promoter	ONTRAS Gastransport GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018-
ONTRAS Gastransport GmbH	100%	Operator	ONTRAS Gastransport GmbH		2028)
Pressure reduction & metering station at Börnicke		Host Country	Germany	NDP Number	507-01 g, 507-01 h, ID 507-02 i, 507- 01 j, 507-01 m
ONTRAS Gastransport GmbH	100%	Status	In Progress	NDP Release Date	20/03/2019
Pressure reduction & metering station at Groß Kö	ris	Website	<u>Project's URL</u>	NDP Website	NDP URL
ONTRAS Gastransport GmbH	100%			Currently PCI	No
Pressure reduction & metering station at Kienbau connection to EUGAL	m with			Priority Corridor(s)	
ONTRAS Gastransport GmbH	100%				
Pressure reduction & metering station at Steinitz					
ONTRAS Gastransport GmbH	50%				

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Schedule	Start Date	End Date
Pre-Feasibility		03/2016
Feasibility	07/2017	10/2017
FEED	10/2017	12/2017
Permitting	01/2018	12/2018
Supply Contracts		
FID		12/2018
Construction	01/2019	12/2023
Commissioning	2023	2023
Grant Obtention		
Date		

Pipelines and Com	npressor Stations				
Pipeline Section		Pipeline Comment		ength Compressor Power (km) (MW)	Comissioning Year
Connection Kienba	aum-EUGAL	Pipeline length 0.1 km	700		2019
		Total			
		Expected Gas Sourcing			
Russia					
		Benefits			
Main Driver	Market Demand				
Main Driver Explan	nation see Market Survey "More	Capacity" (see https://www.more-capacity.eu)			
Benefit Descriptior	1				

	CBCA	Finance	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

# 3rd IP between Portugal and Spain (pipeline Celorico-Spanish border)

TRA-A-283		Project		Pipeline including	g CS N	on-FID
Update Date		22/09/2020			Ad	vanced
Description	Spain by crossing the borde	int (IP) PORTUGAL-SPAIN is located in the prio r between both Member States. h gas systems between Celorico da Beira (Port				0
PRJ Code - PRJ Name	PRJ-G-036 - Interconnectior	ES-PT (3rd interconnection)				
Capacity Increments Varia	ant For Modelling					
Point		Operator	Year	From Gas System	To Gas System	Capacity
		REN - Gasodutos, S.A.	2025	PT	ES	70.00 GWh/d
				Cc	omment: According to the best available data of the Joint Technical Study.	
/IP IBERICO		REN - Gasodutos, S.A.	2025	ES	PT	85.00 GWh/0
				Cc	omment: According to the best available data of the Joint Technical Study.	

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Sponsors			Gei	neral Information	NDP and PCI	Information
<b>REN</b> Gasodutos		100%	Promoter	REN-Gasodutos, S.A.	Part of NDP	Yes (PDIRGN 2018 - 2027)
			Operator	REN - Gasodutos, S.A.	NDP Number	-
			Host Country	Portugal	NDP Release Date	19/12/2018
			Status	Planned	NDP Website	<u>NDP URL</u>
			Website	Project's URL	Currently PCI	No
					Priority Corridor(s)	NSIW
Schedule	Start Date	End Date			Third-Party Ac	ccess Regime
Pre-Feasibility		03/2015			Considered TPA Regime	Regulated
Feasibility	07/2019	04/2020			Considered Tariff Regime	Regulated
FEED	08/2020	07/2021			Applied for Exemption	No
Permitting	05/2021	10/2024			Exemption Granted	No
Supply Contracts		10/2023				
FID		05/2023			Exemption in entry direction	0.00%
Construction	10/2024	12/2025			Exemption in exit direction	0.00%
Commissioning	2025	2025				
Grant Obtention Date	14/07/2015	14/07/2015				

Pipelines and Compressor Stations		Diameter	Lenath	Compressor Power	Comissioning
Pipeline Section	Pipeline Comment	(mm)	(km)	(MW)	Year
Celorico-Spanish border	First Step of the 3rd Interconnection Point (IP) PORTUGAL-SPAIN.	700	162		2025
	Total		162		

	OP 2020 - Annex A	Page 157 of 77
	Fulfilled Criteria	
Specific Criteria Fulfille	Competition, inter alia through diversification of supply sources, supplying counter lifting the isolation of at least one Member State and reducing energy infrastructur of Supply, inter alia through appropriate connections and diversification of supply s inter alia through reducing emissions, supporting intermittent renewable generatio	e bottlenecks, interoperability and system flexibility, Securi sources, supplying counterparts and routes, Sustainability,
Specific Criteria Fulfille	d Comments	
	Delays since last TYNDP	
Delay Since Last TYNDI	P 3 years	
Delay Explanation	In the last edition of the TYNDP, REN was in the permitting process phase, waiting the Competent Authorities. At this moment, REN already received the declaration we necessary to make an adjustment to the initial route, maintaining the same point of 3rd Interconnection between Portugal and Spain was rescheduled due to the activity	vith a unfavorable decision. As a consequence, it will be f interconnection with Spain. Furthermore, the project of th ties that are being developed in the High Level Group for
	the development of the interconnections between France, Spain and Portugal. It's i decision dependent on the STEP project's decision.	mportant to notice that the Portuguese project has its
Nonway Russia Other	the development of the interconnections between France, Spain and Portugal. It's i decision dependent on the STEP project's decision. Expected Gas Sourcing	
Norway, Russia, Other	the development of the interconnections between France, Spain and Portugal. It's i decision dependent on the STEP project's decision. Expected Gas Sourcing LNG sources from the diversification of supply are expected, namely from the result of the integra	
	the development of the interconnections between France, Spain and Portugal. It's i decision dependent on the STEP project's decision. Expected Gas Sourcing LNG sources from the diversification of supply are expected, namely from the result of the integra Benefits	
Norway, Russia, Other Main Driver	the development of the interconnections between France, Spain and Portugal. It's i decision dependent on the STEP project's decision. Expected Gas Sourcing LNG sources from the diversification of supply are expected, namely from the result of the integra Benefits Market Demand	ation of the Iberian m
Main Driver	the development of the interconnections between France, Spain and Portugal. It's i decision dependent on the STEP project's decision. Expected Gas Sourcing LNG sources from the diversification of supply are expected, namely from the result of the integra Benefits	ation of the Iberian m nd Spain, firm and bidirectional. The contribution of this not captured by the modest results of the project in ess be fundamental for the market integration of the

Current TYNDP : TYNDP 2020 - Annex A

Barriers		
Description		
consumers (after the CBCA decision by the regulators of Portugal and Spain) will be obtained by the remuneration	of the net ir	nvested capital of the
from APA - Agência Portuguesa do Ambiente (Competent Environmental Authority), the Environmental Impact Dec	claration wit	h unfavorable decision. As
Enagás & REN are collaborating under the HLG for South West interconnections. It's important to notice that the P dependent on the STEP project's decision.	ortuguese p	roject has its decision
demonstrated by the responses of the stakeholders to the public consultation process on the gas sector TYNDP for in what concerns this specific project, meaning that its potential users are not willing to make any prior commitmer	r Portugal he	eld in 2013, 2015 and 2017 of capacity booking.
Intergovernmental Agreements		
Agreement Description	Is Signed	Agreement Signature Da
European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Yes	27/07/2018
European Comission, Portugal, France and Spain	Yes	04/03/2015
	Description           In simple terms and according to the current Portuguese regulation, the revenue stream respecting the part of the consumers (after the CBCA decision by the regulators of Portugal and Spain) will be obtained by the remuneration project plus the amortization recovery and the opex cost recovery (subject to a mix of price cap and revenue cap renotice that it is not possible to predict if, when and to what extent any changes to this model may occur.           REN submitted the project of the 3rd IP PT-ES to the Environmental Impact Assesment on February 2016. Two year from APA - Agência Portuguesa do Ambiente (Competent Environmental Authority), the Environmental Impact Deciconsequence, it will be necessary to: 1) Make an adjustment to the initial route, maintaining the same point of internew FEED; 3) Restart the environmental permitting process.           Enagás & REN are collaborating under the HLG for South West interconnections. It's important to notice that the P dependent on the STEP project's decision.           Regarding the market survey, the 3rd interconnection between the gas systems of Portugal and Spain is regarded a demonstrated by the responses of the stakeholders to the public consultation process on the gas sector TYNDP for in what concerns this specific project, meaning that its potential users are not willing to make any prior commitment Additionaly, Market test was performed in April 2017 according to chapter V of Regulation 2017/459, and the concerns utation processes.           Intergovernmental Agreements           Agreement Description           European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Description           In simple terms and according to the current Portuguese regulation, the revenue stream respecting the part of the project alloc consumers (after the CBCA decision by the regulators of Portugal and Spain) will be obtained by the remuneration of the net in project plus the amortization recovery and the opex cost recovery (subject to a mix of price cap and revenue cap regimes). New notice that it is not possible to predict if, when and to what extent any changes to this model may occur.           REN submitted the project of the 3rd IP PT-ES to the Environmental Impact Assessment on February 2016. Two years later, on Fe from APA - Agência Portuguesa do Ambiente (Competent Environmental Authority), the Environmental Impact Declaration with consequence, it will be necessary to: 1) Make an adjustment to the initial route, maintaining the same point of interconnection new FEED; 3) Restart the environmental permitting process.           Enagás & REN are collaborating under the HLG for South West interconnections. It's important to notice that the Portuguese p dependent on the STEP project's decision.           Regarding the market survey, the 3rd interconnection between the gas systems of Portugal and Spain is regarded as commercide monstrated by the responses of the stakeholders to the public consultation process on the gas sector TYNDP for Portugal he in what concerns this specific project, meaning that its potential users are not willing to make any prior commitments in terms Additionaly, Market test was performed in April 2017 according to chapter V of Regulation 2017/459, and the conclusions were consultation processes.           Intergovernmental Agreements         Is Signed           Luropean Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconn

	СВСА		Financial Assistance
Decision	No, we have not submitted an investment request yet, but we do plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	01/09/2020	Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 0.5
Website		Grants for works	No
Countries Affected		Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies and works
	The project of the 3rd Interconnection between Portugal	Other Financial Assistance	No
	and Spain was rescheduled due to the activities that are	Comments	
Additional Comments	being developed in the High Level Group for the development of the interconnections between France, Spain and Portugal. It's important to notice that the Portuguese project has its decision dependent on the STEP project's decision.	General Comments	

	Eastring - Bulgaria				
TRA-A-654	Project		Pipeline including	CS N	Non-FID
Update Date	22/11/2019			Non	-Advanced
Description	Eastring-BG is subproject located in Bulgaria and is essential part of the East station at Veľké Zlievce in the territory of Slovakia with a new IP at an exter secure supplies in case of RU disruption and therefore it will increase gas So alternative gas sources for Central, Western & Southern Europe and (iii) me	nal border of the E oS in the broader (	U in the territory of Bu Central-South-East EU	lgaria. The projec	t would (i)
PRJ Code - PRJ Name	PRJ-G-041 - Pipeline system from Bulgaria via Romania and Hungary to Slo	ovakia [currently kn	own as "Eastring"		
Capacity Increments Varia	ant For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Bulgartransgaz EAD	2025	BGn	BG/EAR	200.00 GWh/d

Eastring BG Domestic Point	Comment: Entry/Exit capacity at d all Exit capacities from domestic s	, , , ,			nis	
	Bulgartransgaz EAD	2025	BG/EAR	BGn	200.00 GWh/d	
	Comment: Entry/Exit capacity at domestic points may go up to the level of 200 GWh/d if sum of all Exit capacities from domestic system to adjacent networks (or vice versa) is able to reach this level.					
	Bulgartransgaz EAD	2025	BG/EAR	RO/EAR	617.00 GWh/d	
	Comment: Phase 1 New IP					
	Bulgartransgaz EAD	2025	RO/EAR	BG/EAR	617.00 GWh/d	
Eastring Cross Porder PC (EAD <> DO (EAD	Comment: Phase I New IP					
Eastring Cross-Border BG/EAR <> RO/EAR	Bulgartransgaz EAD	2030	BG/EAR	RO/EAR	617.00 GWh/d	
	Comment: Phase II				e II	
	Bulgartransgaz EAD	2030	RO/EAR	BG/EAR	617.00 GWh/d	
				Comment: Phase	e II	
	Bulgartransgaz EAD	2025	BG/EAR	TRe	617.00 GWh/d	
Eastring Cross-Border BG/EAR>TR	Comment: Transmission betwee	en Eastring -Bulgaria ar	nd Turkey via new l	IP at BG/TR borde	er.	
	Bulgartransgaz EAD	2030	BG/EAR	TRe	617.00 GWh/d	

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Eastring Cross-Border BG/EAR>TR					Comment: Phase II			
	Bulgartransgaz EAD	2025	TRi	BG/EAR	617.00 GWh/d			
Eastring Cross-Border TR>BG/EAR	Bulgartransgaz EAD	2030	TRi	BG/EAR	617.00 GWh/d			
				Comment: Phase	e II			

Sponsors				General Information	NDP and	PCI Information
Bulgartransgaz EAD		100%	6 Promoter	Bulgartransgaz EAD	Part of NDP	Yes (2019-2028 Ten-year network
			Operator	Bulgartransgaz EAD		development plan of BTG)
			Host Country	Bulgaria	NDP Number	Section 5.1 (5.1.2)
			Status	Planned	NDP Release Date	23/04/2019
			Website	Project's URL	NDP Website	NDP URL
					Currently PCI	No
					Priority Corridor(s)	NSIE
Schedule	Start Date	End Date			Third-Par	ty Access Regime
Pre-Feasibility		08/2016			Considered TPA Regime	Not Applicable
Feasibility	09/2017	09/2018			Considered Tariff Regime	Not Applicable
FEED	01/2019	08/2020			Applied for Exemption	Not Relevant
Permitting	03/2020	06/2020			Exemption Granted	Not Relevant
Supply Contracts		01/2020				
FID		09/2020			Exemption in entry direction	on 0.00%
Construction	02/2023	04/2025			Exemption in exit direction	0.00%
Commissioning	2025	2030			·	
Grant Obtention	12/05/2017	12/05/2017				

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Pipeline Section	Pipeline Comment D	iameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Eastring-BG-2	Data refers to the first stage - capacity 617 GWh/d, in case of increase of capacity up to 1234 GWh/d in 2030, compressor power at level of 310 MW will be needed	1,400	262	93	2025
	Total		262	93	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts an appropriate connections and diversification of supply sources, supplying counterparts and emissions, supporting intermittent renewable generation and enhancing deployment of re	routes, S	Sustainat		
Specific Criteria Fulfilled	Comments				
	Delays since last TYNDP				
Delay Since Last TYNDP					
Delay Explanation	Time schedule in the last TYNDP was estimated according to the data from the pre-feasibi	lity study	with low	ver level of details.	
	Expected Gas Sourcing				
	r, Russia, LNG (IR,IQ,IL,KW,QA,TR,UK), Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Azerba	ijan, Any	gas avail	lable at Turkish/Europ	bean HUBs
	r, Russia, LNG (IR,IQ,IL,KW,QA,TR,UK), Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Azerba Benefits	ijan, Any	gas avail	lable at Turkish/Europ	bean HUBs
including		ijan, Any	gas avail	lable at Turkish/Europ	bean HUBs
including Main Driver	Benefits	as supply	in South	Eastern Europe to th	e markets of

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		Barı	riers		
Barrier Type	Description				
Regulatory	Capacity quota	as			
Regulatory	Low rate of ret	turn			
Market	Lack of market	t maturity			
Financing	Availability of	funds and associated conditions			
		Intergovernmer	ntal Agreements		
Agreement		Agreement Description		Is Signed	Agreement Signature Date
Declaration		Governmental declaration		No	21/05/2015
Memorandum of Under	rstanding	Memorandum of Understanding		No	13/07/2016
		CBCA		Financial Assistance	
Decision	No, we	e have not submitted an investment request yet,	Applied for CEF	(3) No	, we have not applied for CEF
		but we do plan to submit it	Grants for studies		No
Submissin Date			Grants for studies amount		Mln EUR 0.0
Decision Date			Grants for works		No
Website			Grants for works amount		Mln EUR 0.0
Countries Affected			Intention to apply for CEF		Yes, for studies and works
Countries Net Cost Bea	rer		Other Financial Assistance		No
Additional Comments			Comments		granted Financial support for lity study execution from CEF
			General Comments		

617.00 GWh/d

	Eastring - Hungary	/			
TRA-A-656	Project		Pipeline including	y CS N	lon-FID
Update Date	18/09/2020			Non	-Advanced
Description	A Eastring-HU is subproject located in Hungary and is essential part of following routing options: via HU, (new pipeline) from RO-HU border secure supplies in case of RU disruption and therefore it will increase g alternative gas sources for Central, Western Southern Europe and (iii)	(Csanadpalota) to HU/S as SoS in the broader C	K border (Balassagyar Central-South-East EU	rmat). The project	would (i)
PRJ Code - PRJ Name	PRJ-G-041 - Pipeline system from Bulgaria via Romania and Hungary to	o Slovakia [currently kn	own as "Eastring"		
Capacity Increments Varia	ant For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
	FGSZ Ltd.	2025	HU/EAR	SK/EAR	617.00 GWh/
			Comment: I.p	hase of the project	t

2025

SK/EAR

FGSZ Ltd.

Eastring Cross-Border HU/EAR <> SK/EAR	FGSZ Ltd.	2030	HU/EAR	SK/EAR	617.00 GWh/d
			Comment: II.µ	phase of the Proje	ect
	FGSZ Ltd.	2030	SK/EAR	HU/EAR	617.00 GWh/d
			Comment: II.µ	phase of the Proje	ect
	FGSZ Ltd.	2025	HU/EAR	RO/EAR	617.00 GWh/d
			Comment: I.,	phase of the proje	ect
	FGSZ Ltd.	2025	RO/EAR	HU/EAR	617.00 GWh/d
Fastring Cross Porder PO/FAD (> 100/FAD			Comment: I.	phase of the proje	ect
Eastring Cross-Border RO/EAR <> HU/EAR	FGSZ Ltd.	2030	HU/EAR	RO/EAR	617.00 GWh/d
	Comment: II.phase of th		phase of the Proje	ect	
	FGSZ Ltd.	2030	RO/EAR	HU/EAR	617.00 GWh/d
			Comment: II. <sub>I</sub>	phase of the Proje	ect
Eastring HU Domestic Point	FGSZ Ltd.	2025	HU	HU/EAR	310.00 GWh/d
Lasting no Domestic Point	FGSZ Ltd.	2025	HU/EAR	HU	310.00 GWh/d

HU/EAR

Comment: I.phase of the project

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Sponsors			General	Information	NDP and PCI Information		
Eastring B.V. (to be	discussed later)	100%	Promoter	FGSZ Ltd.	Part of NDP	Yes (National Development Plan 2018)	
			Operator	FGSZ Ltd.	NDP Number	12.13.	
			Host Country	Hungary	NDP Release Date	19/12/2018	
			Status	Planned	NDP Website	<u>NDP URL</u>	
			Website	Project's URL	Currently PCI	No	
					Priority Corridor(s)	NSIE	
Schedule	Start Date	End Date			Third	I-Party Access Regime	
Pre-Feasibility		08/2016			Considered TPA Regin	ne <i>Regulated</i>	
Feasibility	09/2017	06/2018			Considered Tariff Regi	ime Regulated	
FEED	01/2019	08/2020			Applied for Exemption	No No	
Permitting	11/2021	06/2022			Exemption Granted	Not Relevant	
Supply Contracts		01/2021					
FID		09/2020			Exemption in entry dir	rection 0.00%	
Construction	02/2023	01/2025			Exemption in exit dire	ction 0.00%	
Commissioning	2025	2030					
Grant Obtention Date	12/05/2017	12/05/2017					

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Eastring - HU	Data refer to the first phase capacity 617 GWh/d	1,400	283		2025
	Total		283		

urrent TYNDP : TYN	DP 2020 - Annex A	Page 166 of 77
	Fulfilled Criteria	
Specific Criteria Fulfille		applying counterparts and routes, Security of Supply, inter alia through plying counterparts and routes, Sustainability, inter alia through reducing ancing deployment of renewable gas
Specific Criteria Fulfille	ed Comments	
	Delays since last TYNDP	
Delay Since Last TYND	P	
Delay Explanation	Time schedule in the last TYNDP was estimated according to the da	ata from the pre-feasibility study with lower level of details.
	Expected Gas Sourcing	
Caspian Region, Norw	ay, Russia, LNG (TR), Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Az	zerbaijan, Any gas available at Turkish/European HUBs. For dire
	Benefits	
Main Driver	Others	
Main Driver Explanatio	The project brings significant benefits to the SoS of Europe, bringing the incre Central and Western Europe, while further enhancing the market integration o side; price convergence; Decrease of carbon emissions	
Benefit Description	- Physical alternative for providing 100% of all Balkan countries' consumption; security of supply for 100% of all Balkan countries' consumption; - Additional Western shippers with possibility to supply Balkan countries and even Turkey f Europe from alternative sources – AGRI, TANAP, Caspian, Iran, Iraq, Egypt, Isra Decrease of market concentration on producers side	utilization for CZ, SK, PL, UA, RO, BG transit and storage assets; - Providing from NCG/Gaspool/Baumgarten; - Corridor ready for future gas imports to
	Barriers	
Barrier Type	Description	
Regulatory	Low rate of return	
Regulatory	Capacity quotas	
Financing	Availability of funds and associated conditions	
Market	Lack of market maturity	

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Mln EUR 0.0

route from CEF.

No

No decision yet taken

	Intergovernme	ntal Agreements		
Agreement	Agreement Description		Is Signed A	greement Signature Date
Declaration	Goverment declaration		No	21/05/2015
Memorandum of Understanding	Memorandum of Understanding	Memorandum of Understanding		13/07/2016
Memorandum of Understanding	Memorandum of Understanding		Yes	30/10/2017
	СВСА	Fina	ancial Assistance	
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, v	ve have not applied for CEF
Decision	but we do plan to submit it	Grants for studies	No	
Submissin Date		Grants for studies amount		Mln EUR 0.0
Decision Date		Grants for works		No
Website		Grants for works amount		MIn ELIR 0.0

Countries Affected

Countries Net Cost Bearer

Additional Comments

General Comments

Comments

Grants for works amount

Intention to apply for CEF

Other Financial Assistance

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Eustream received 1,000,000 EUR financial support for feasibility study for execution the whole SK-HU-RO-BG

Eastring - Romania						
TRA-A-655	Project		Pipeline including	J CS N	lon-FID	
Update Date	22/11/2019			Non	-Advanced	
Description PRJ Code - PRJ Name	Eastring-RO is the subproject located in Romania and is an essential part Compressor station at Veľké Zlievce in the territory of Slovakia with a new would (i) secure supplies in case of RU disruption and therefore it will incr to alternative gas sources for Central, Western Southern Europe and (iii) r PRJ-G-041 - Pipeline system from Bulgaria via Romania and Hungary to S	PIP at an external bo ease gas SoS in the mean step towards E	order of the EU in the to broader Central-South EU single gas market.	erritory of Bulgari	a. The project	
Capacity Increments Vari	ant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity	
	SNTGN Transgaz S.A.	2025	BG/EAR	RO/EAR	617.00 GWh/o	
			(	Comment: Phase 1	1	
	SNTGN Transgaz S.A.	2025	RO/EAR	BG/EAR	617.00 GWh/o	

	SINTON TRAISguz S.A.	2025		00/1/11	
Easting Course Develop DC (FAD as DO (FAD				Comment: Phase	e 1
Eastring Cross-Border BG/EAR <> RO/EAR	SNTGN Transgaz S.A.	2030	BG/EAR	RO/EAR	617.00 GWh/d
				Comment: Phase	e 2
	SNTGN Transgaz S.A.	2030	RO/EAR	BG/EAR	617.00 GWh/d
				Comment: Phase	e 2
	SNTGN Transgaz S.A.	2025	HU/EAR	RO/EAR	617.00 GWh/d
				Comment: Phase	e 1
	SNTGN Transgaz S.A.	2025	RO/EAR	HU/EAR	617.00 GWh/d
Eastring Cross Porder DO/EAD (> 111/EAD				Comment: Phase	e 1
Eastring Cross-Border RO/EAR <> HU/EAR	SNTGN Transgaz S.A.	2030	HU/EAR	RO/EAR	617.00 GWh/d
				Comment: Phase	e 2
	SNTGN Transgaz S.A.	2030	RO/EAR	HU/EAR	617.00 GWh/d
				Comment: Phase	e 2
Eastring BO Domostic Boint	SNTGN Transgaz S.A.	2025	RO	RO/EAR	150.00 GWh/d
Eastring RO Domestic Point	SNTGN Transgaz S.A.	2025	RO/EAR	RO	150.00 GWh/d

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sors	General Information

Current TYNDP : TYNDP 2020 - Annex A

Grant Obtention

Date

Sponsors			Genera	al Information	ND	P and PCI Information
Transgaz S.A.		100%	Promoter	SNTGN Transgaz SA		No ((1) the NDP was prepared at an
			Operator	SNTGN Transgaz S.A.	Part of NDP	earlier date and the project will be proposed for inclusion in the next NDP)
			Host Country	Romania	NDP Number	proposed for inclusion in the next NDP)
			Status	Planned		
			Website	<u>Project's URL</u>	NDP Release Date NDP Website	
					Currently PCI	No
					Priority Corridor(s)	NSIE
					Phonty Condor(s)	INSIE
Schedule	Start Date	End Date			Thir	d-Party Access Regime
Pre-Feasibility		08/2016			Considered TPA Regi	me Regulated
Feasibility	09/2017	09/2018			Considered Tariff Reg	jime Regulated
FEED	01/2019	08/2020			Applied for Exemptio	n No
Permitting	11/2021	06/2022			Exemption Granted	Not Relevant
Supply Contracts		01/2021				
FID		09/2020			Exemption in entry di	rection 0.00%
Construction	02/2023	01/2025			Exemption in exit dire	ection 0.00%
Commissioning	2025	2030				

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment Diam (mr		ngth (m)	Compresso (MV	Comissioning Year
Eastring RO/Phase 1	Data refers to the first phase capacity 617 GWh/d for a 1,4 new route via SK,HU,RO,BG with commissioning in 2025.	00 6	46	93	2025
	Total	6	46	93	

urrent TYNDP : TYNDF	2020 - Annex A	Page 170 of 773
	Fulfilled Criteria	
Specific Criteria Fulfilled		y infrastructure bottlenecks, interoperability and system flexibility, Securit ion of supply sources, supplying counterparts and routes, Sustainability,
Specific Criteria Fulfilled	Comments	
	Delays since last TYNDP	
Delay Since Last TYNDP		
Delay Explanation	Time schedule in the last TYNDP was estimated according to the data	from the pre-feasibility study with lower level of details.
	Expected Gas Sourcing	
Caspian Region, Norway	, Russia, LNG (TR), Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Azerl	baijan, Any gas available at Turkish/European HUBs. For dire
	Benefits	
Main Driver	Others	
Main Driver Explanation	The project brings significant benefits to the SoS of Europe, bringing the increasi Central and Western Europe, while further enhancing the market integration of the side; price convergence; Decrease of carbon emissions	
Benefit Description	Physical alternative for providing 100% of all Balkan countries' consumption; enha security of supply for 100% of all Balkan countries' consumption; - Additional util Western shippers with possibility to supply Balkan countries and even Turkey fror Europe from alternative sources – AGRI, TANAP, Caspian, Iran, Iraq, Egypt, Israel, Decrease of market concentration on producers side	lization for CZ, SK, PL, UA, RO, BG transit and storage assets; - Providing m NCG/Gaspool/Baumgarten; - Corridor ready for future gas imports to
	Barriers	
Barrier Type	Description	
Regulatory	Capacity quotas	
Regulatory	Low rate of return	
Financing	Availability of funds and associated conditions	
Market	Lack of market maturity	

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Intergovernmental Agreements						
Agreement	Agreement Description	Is Signed	Agreement Signature Date			
Declaration	The government officials of Slovakia, Hungary, Romania and Bulgaria confirmed their support for the implementation of interconnection and substantial bi-directional capacity of existing infrastructure for natural gas supply on the territory of the Republi	Yes	21/05/2015			
1. Memorandum of Understanding	1. MoU was signed by and between Slovak Economy Minister Peter Žiga and Hungarian Minister of Foreign Affairs Péter Szijjártó . The document was signed in the presence of Slovak Prime Minister Robert Fico in Košice. The Parties of the Memorandum articulat	Yes	30/10/2017			
Memorandum of Understanding	Peter Žiga, Minister of Economy of the Slovak Republic, and Žečo Stankov, State Secretary of the Ministry of Energy of the Bulgarian Republic, signed the Memorandum of Understanding on the Eastring project.	Yes	13/07/2016			

	CBCA Financial Assistance		
Decision	No, we have not submitted an investment request yet, but we do plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 1.0
Website		Grants for works	No
Countries Affected		Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies and works
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

TRA-A-628	Project	Pipeline including CS	Non-FID
Update Date	22/09/2020		Advanced
Description	Eastring-SK is the subproject located in Slovakia and is an essential part of the Compressor station at Veľké Zlievce in the territory of Slovakia with a new IP a would (i) secure supplies in case of RU disruption and therefore it will increase (ii) allow access to alternative gas sources for Central, Western & Southern Eur	t an external border of the EU in the territory o gas SoS in the broader Central-South-East EU	f Bulgaria. The project region,
PRJ Code - PRJ Name	PRJ-G-041 - Pipeline system from Bulgaria via Romania and Hungary to Slovak	kia [currently known as "Eastring"	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Eastring B.V.	2025	HU/EAR	SK/EAR	617.00 GWh/d
			Comment: I.p	hase of the projec	t
	Eastring B.V.	2025	SK/EAR	HU/EAR	617.00 GWh/d
Forthing Cross Bourder LUL/FAD to SK/FAD			Comment: I. p	hase of the projec	t
Eastring Cross-Border HU/EAR <> SK/EAR	Eastring B.V.	2030	HU/EAR	SK/EAR	617.00 GWh/d
			Comment: II. p	hase of the projec	t
	Eastring B.V.	2030	SK/EAR	HU/EAR	617.00 GWh/d
			Comment: II.p	hase of the Projec	t

Sponsors		General Information			DP and PCI Information	
Eastring B.V.	100%	Promoter	eustream, a.s. (a joint stock company)	Part of NDP	Yes (Development plan of the transmission system of eustream, a.s. for	
		Operator	eustream, a.s.		the period 2019 - 2028)	
		Host Country	Slovakia	NDP Number	None	
		Status	Planned	NDP Release Date	30/11/2018	
		Website	<u>Project's URL</u>	NDP Website	NDP URL	
				Currently PCI	No	
				Priority Corridor(s)	NSIE	

Schedule	Start Date	End Date
Schedule	Start Date	
Pre-Feasibility		08/2016
Feasibility	09/2017	09/2018
FEED	01/2019	08/2020
Permitting	11/2021	06/2022
Supply Contracts		01/2021
FID		09/2020
Construction	02/2023	01/2025
Commissioning	2025	2030
Grant Obtention Date	12/05/2017	12/05/2017

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Third-Party Access Regim	e
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipeline Section	Pipeline Comment	Diameter (mm)	r Length (km)	Compressor Power (MW)	Comissioning Year
Eastring-SK	string-SK new route via SK,HU,RO,BG with commissioning in 2025			93	2025
	Total		17	93	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Fulfilled Criteria Competition, inter alia through diversification of supply sources, supplying counterparts appropriate connections and diversification of supply sources, supplying counterparts a emissions, supporting intermittent renewable generation and enhancing deployment o	and routes,	Sustainab		-
Specific Criteria Fulfilled Specific Criteria Fulfilled Com	Competition, inter alia through diversification of supply sources, supplying counterparts a appropriate connections and diversification of supply sources, supplying counterparts a emissions, supporting intermittent renewable generation and enhancing deployment o	and routes,	Sustainab		-
	Competition, inter alia through diversification of supply sources, supplying counterparts a appropriate connections and diversification of supply sources, supplying counterparts a emissions, supporting intermittent renewable generation and enhancing deployment o	and routes,	Sustainab		-
	Competition, inter alia through diversification of supply sources, supplying counterparts appropriate connections and diversification of supply sources, supplying counterparts a emissions, supporting intermittent renewable generation and enhancing deployment o ments	and routes,	Sustainab		-

### **Expected Gas Sourcing**

### Caspian Region, Russia, Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Azerbaijan, Any gas available at Turkish/European HUBs including

		Benefits				
Main Driver	Others					
Main Driver Explanation	The project brings significant benefits to the SoS of Europe, bringing the increasing new sources of gas supply in South Eastern Europe to the mar Central and Western Europe, while further enhancing the market integration of the affected countries. Decrease of market concentration on produ- side; price convergence; Decrease of carbon emissions					
Benefit Description	security of suppl Western shipper Europe from alte	ative for providing 100% of all Balkan countries' consumption; enhan ly for 100% of all Balkan countries' consumption; - Additional utilizat rs with possibility to supply Balkan countries and even Turkey from N ernative sources – AGRI, TANAP, Caspian, Iran, Iraq, Egypt, Israel, Cyp rket concentration on producers side	tion for CZ, SK, PL, UA, RO, BG transit and storage assets; - Provid NCG/Gaspool/Baumgarten; - Corridor ready for future gas import:			
		Barriers				
Barrier Type	Description					
Regulatory	Capacity quotas					
Regulatory	Low rate of retur	m				
Financing	Availability of fu	nds and associated conditions				
Market	Lack of market n	naturity				
		Intergovernmental Agreements				
Agreement		Agreement Description	Is Signed Agreement Signatur			
Memorandum of Unders	standing	Memorandum of Understanding	Yes 30/10/2017			
Memorandum of Unders	standing	Memorandum of Understanding	Yes 13/07/2016			
		Governmental declaration	Yes 21/05/2015			

	CBCA			Financial Assistance
Decision	No, we have not submitted an investment request yet, but we do plan to submit it		Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date			Grants for studies	Yes
Decision Date			Grants for studies amount	Mln EUR 1.0
Website			Grants for works	No
Countries Affected			Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer			Intention to apply for CEF	Yes, for studies and works
Additional Comments			Other Financial Assistance	Yes
			Comments	Financial support for feasibility study execution from CEF
			General Comments	

# Enhancement of Transmission Capacity of Slovak-Hungarian interconnector

TRA-N-524		Project			Pipeline includin	ig CS	Non-FID		
Jpdate Date		11/08/2020				Nor	n-Advanced		
Description	in SK>HU direction at	ransmission capacity with 102 GWh/day in HU>SK Balassagyarmat with new compressors on Szada C irection at the Slovak-Hungarian interconnector.					· · · · · · · · · · · · · · · · · · ·		
PRJ Code - PRJ Name	PRJ-G-045 - Enhancem	nent of the capacity at SK-HU interconnector							
Capacity Increments Varia	ant For Modelling								
Point		Operator		Year	From Gas System	To Gas System	Capacity		
Palaccagyarmat (HU) / Va	Niké Zliouco (SK)	MGT Hungarian Gas Transit Ltd.		2022	HU	SK	102.00 GWh/		
Balassagyarmat (HU) / Velké Zlievce (SK)		MGT Hungarian Gas Transit Ltd.		2022	SK	HU	26.00 GWh/o		
Sponsors		General Information			NDP an	d PCI Information			
FGSZ Ltd.	100%	Promoter	FGSZ Ltd.	Part of NDP			tional Development Plan- MG		
1		Operator	FGSZ Ltd.		50.4		evelopment Pla		
		Host Country	Hungary	NDP	Number	N-524 (new nr will pr	be received onc oject is approve		
		Status	Planned	NDP	Release Date	P			
		Website	<u>Project's URL</u>		Website		NDP UI		
					ently PCI	Ŷ	/es (6.2.13 (2020		
					ity Corridor(s)		, , ,		
					,				

NDP 2020 - Ann	ex A	
Start Date	End Date	Third-Party Acces
	12/2018	Considered TPA Regime
01/2018	12/2018	Considered Tariff Regime
10/2019	10/2020	Applied for Exemption
10/2019	10/2020	Exemption Granted
	08/2019	Exemption in entry direction
08/2020	10/2022	Exemption in exit direction
2022	2022	
	Start Date 01/2018 10/2019 10/2019 08/2020	12/2018 01/2018 12/2018 10/2019 10/2020 10/2019 10/2020 08/2019 08/2020 10/2022

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Szada CS					0
				16	0

	Fulfilled Criteria					
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes					
Specific Criteria Fulfilled Comments	This capacity project is to promote the diversified procurement of gas and the security of supply the member states of the EU. The project will increase price convergence of the HU gas market to the EU markets. As part of the north-south axis it will contribute also to handling of the SoS issues identified in the CEE and SEE region. Furthermore, to better utilise the existing assets of the domestic natural gas system and to improve the transit routes in order to improve transit services, while providing for the expected quality of the natural gas on the connecting systems. The project shall result in the operational efficiencies -linking of the 75 bar transit systems (RO-HU, HR-HU, Srb-HU, SK-HU, Ukr-HU, AT-HU).					

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**Expected Gas Sourcing** 

Norway, Russia, LNG (HR,PL), Romania- pipeline

Benefits				
Main Driver	Market Demand			
Main Driver Explanation	As part of the north-south axis it will contribute also to handling of the SoS issues identified in the CEE and SEE region. Furthermore, to better utilise the existing assets of the domestic natural gas system and to improve the transit routes in order to improve transit services, while providing for the expected quality of the natural gas on the connecting systems			
Benefit Description				

CBCA		Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturinin Data	not	Grants for studies amount	Mln EUR	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF	Yes, for studies and works	
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer Additional Comments		Comments		
		General Comments		



# Firm transmission capacity increase at the IP Veľké Zlievce

TRA-N-1235		Project		Pipeline including	g CS N	Non-FID					
Update Date		19/03/2020		Non	Non-Advanced						
Description	interruptible capacity to no direction switch operation	Expansion of the capacity at the SK-HU interconnection point developing the transmission capacity in HU>SK and SK>HU direction from interruptible capacity to non-interruptible (firm) capacity in order to enhance flexibility, interoperability, operational efficiency reducing the flow direction switch operation time, security of gas supplies in the affected countries in the CEE and SEE region. Moreover price convergence is expected as a complementary effect.									
PRJ Code - PRJ Name	PRJ-G-045 - Enhancement	PRJ-G-045 - Enhancement of the capacity at SK-HU interconnector									
Capacity Increments \	Variant For Modelling										
	Variant : Variant SK-1	iant : Variant SK-1 Pipeline section - Border delivery pressure at current level without Extra Pressure Agreement in force									
Point		Operator	Year	From Gas System	To Gas System	Capacity					
Balassagyarmat (HU) / Velké Zlievce (SK)		eustream, a.s.	2022	HU	SK	102.20 GWh/0					
		eustream, a.s.	2022	SK	HU	25.40 GWh/d					
Capacity Increments \	Variant(s) For Information Only										
	Variant : Variant SK-2	Pipeline section-Border delivery pressure at current level with Extra Pressure Agreement in force									
Point		Operator	Year	From Gas System	To Gas System	Capacity					
Balassagyarmat (HU) / Velké Zlievce (SK)		eustream, a.s.	2022	HU	SK	102.20 GWh/c					
		eustream, a.s.	2022	SK	HU	25.40 GWh/d					

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Sponsors			General I	nformation	NDP and PCI Information		
eustream,a.s.		100%	Promoter	eustream,a.s.	Part of NDP	Yes (National Development Plan 2018 -	
			Operator	eustream, a.s.		2027)	
			Host Country	Slovakia	NDP Number	4.1.1.3 Firm transmission capacity increase at the IP Veľké Zlievce	
			Status	Planned	NDP Release Date	30/11/2017	
			Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>	
					Currently PCI	No	
					Priority Corridor(s)	NSIE	
Schedule	Start Date	End Date			Thir	d-Party Access Regime	
Pre-Feasibility					Considered TPA Regi	me Regulated	
Feasibility					Considered Tariff Reg	gime Regulated	
FEED					Applied for Exemptio	n No	
Permitting					Exemption Granted	No	
Supply Contracts							
FID					Exemption in entry d	irection 0.00%	
Construction	10/2020	06/2022			Exemption in exit dire	ection 0.00%	
Commissioning	2022	2022					
Grant Obtention Date							

Pipelines and Compressor Stations		
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comission (mm) (km) (MW) Year
Firm capacity increase at the IP Veľké Zlievce		10 2022
	Total	10

	Fulfilled Criteria					
Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through specific Criteria Fulfilled appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through redu emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas						
Specific Criteria Fulfilled Commer	ts					
	Expected Gas Sourcing					
Caspian Region, Russia						

	Benefits				
Main Driver	Market Demand				
Main Driver Explanation	Increase of interoperability and flexibility of the system between Slovakia and Hungary in order to ensure prerequisite for security of supply enhancement in the region and to increase capacities to the level of the expected market demand.				
Benefit Description	This capacity project is to promote the diversified procurement of gas and the security of supply the member states of the EU. The project will increase price convergence of the HU gas market to the EU markets. As part of the northsouth axis it will contribute also to handling of the SoS issues identified in the CEE and SEE region. Furthermore, to better utilise the existing assets of the domestic natural gas system and to improve the transit routes in order to improve transit services, while providing for the expected quality of the natural gas on the connecting systems. The project improvements shall result in the operational efficiencies -linking of the 75 bar transit systems (RO-HU, HR-HU, Srb-HU, SK-HU, Ukr-HU, AT-HU).				
	Barriers				
Barrier Type	Description				
Financing	Availability of funds and associated conditions				
Regulatory	Capacity quotas				
Regulatory	Low rate of return				

	i i i i i i i i i i i i i i i i i i i	cial Assistance
	Applied for CEF	(3) No, we have not applied for CEF
and we do not plan to submit it	Grants for studies	No
	Grants for studies amount	Mln EUR 0.0
	Grants for works	No
	Grants for works amount	Mln EUR 0.0
	Intention to apply for CEF	
	Other Financial Assistance	No
	Comments	
	General Comments	
	ave not submitted an investment request yet, and we do not plan to submit it	and we do not plan to submit it Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF Other Financial Assistance Comments

## Romanian-Hungarian reverse flow Hungarian section 1st stage

TRA-F-286		Project			Pipeline including	J CS	FID
Update Date		22/11/2019				A	dvanced
Description	A new compressor station at 1.75 bcm/a from and towards	Csanádpalota with 2 units (4.5 MW each) Romania.	- necessary to c	reate pr	essure conditions for	the transportation	n capacity of
PRJ Code - PRJ Name	PRJ-G-047 - RO-HU Transmis	sion Corridor					
Capacity Increments Varia	ant For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Csanadpalota		FGSZ Ltd.		2019	RO	HU	48.90 GWh/d
Sponsors		General Information			NDP and	PCI Information	
FGSZ Ltd.	100%	Promoter	FGSZ Ltd.	Part o			ian TYNDP 2018)
		Operator	FGSZ Ltd.	NDP	Number	·	12.5.
		Host Country	Hungary	NDP	Release Date		31/01/2019
		Status	In Progress	NDP	Website		NDP URL
		Website	Project's URL	Curre	ntly PCI		No
			-	Priori	ty Corridor(s)		

Schedule	Start Date	End Date
Pre-Feasibility		06/2014
Feasibility	09/2016	07/2017
FEED	07/2018	10/2018
Permitting	07/2018	09/2018
Supply Contracts		12/2018
FID		06/2017
Construction	10/2018	12/2019
Commissioning	2019	2019
Grant Obtention Date	14/10/2015	14/10/2015

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Third-Party Access Regime					
Considered TPA Regime	Regulated				
Considered Tariff Regime	Regulated				
Applied for Exemption	No				
Exemption Granted	No				
Exemption in entry direction	0.00%				
Exemption in exit direction	0.00%				

Pipelines and Com	npressor Stations	
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissioning (mm) (km) (MW) Year
Csanadpalota		9 0
	Total	9
	Delays since last TYNDP	
Delay Since Last TY	(NDP	
Delay Explanation		
	Expected Gas Sourcing	
Romanian sources a	and/or other available sources from Bulgaria direction	
	Benefits	
Main Driver	Others	
Main Driver Explana	ation	

**Benefit Description** 

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	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date	16/10/2015	Grants for studies amount	Mln EUR 2.3
Website		Grants for works	No
Countries Affected	Hungary, Romania	Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	No, we do not plan to apply
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

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## Romanian-Hungarian reverse flow Hungarian section 2nd stage

TRA-A-377		Project			Pipeline including	g CS N	Non-FID	
Update Date		15/08/2019					Advanced	
Description	A third compressor unit (4.5 M	MW) is needed at Csanádpalota to reach	the increased 4.4	l bcm/a	capacity of the corric	dor at the RO/HU	border.	
PRJ Code - PRJ Name	PRJ-G-047 - RO-HU Transmis	sion Corridor						
Capacity Increments Varian	t For Modelling							
Point		Operator		Year	From Gas System	To Gas System	Capacity	
Csanadpalota		FGSZ Ltd.		2022	HU	RO	76.50 GWh/d	
Csanaupalota		FGSZ Ltd.		2022	RO	HU	76.50 GWh/d	
Sponsors		General Information			NDP and	PCI Information		
FGSZ Ltd.	100%	Promoter	FGSZ Ltd.	Part o	of NDP	Yes (Hungar	ian TYNDP 2018)	
		Operator	FGSZ Ltd.	NDP	Number		12.5	
		Host Country	Hungary	NDP	Release Date		31/01/2019	
		Status	Planned	NDP	Website		<u>NDP URL</u>	
		Website	<u>Project's URL</u>	Curre	ently PCI	Yes	6.24.4.6 (2020))	
				Priori	ty Corridor(s)			

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Schedule	Start Date	End Date
Pre-Feasibility		06/2014
Feasibility	09/2016	07/2017
FEED	12/2019	01/2020
Permitting	02/2020	08/2020
Supply Contracts		05/2020
FID		10/2019
Construction	09/2020	12/2022
Commissioning	2022	2022
Grant Obtention Date	27/04/2016	27/04/2016

Pipeline Section	Pipeline Comment Diar (n			Compressor Power (MW)	Comissioning Year
Csanádpalota	+1 Compressor unit 4.5MW			4	0
			4		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying appropriate connections and diversification of supply sources, supplying of	counterparts and routes, S	Sustainab		-
Specific Criteria Fulfilled Comn	emissions, supporting intermittent renewable generation and enhancing onents. The pipeline enables to increase capacity of Csanádpalota (RO>HU) and C		gas		
Specific Criteria Fulfilled Comn			gas		
Specific Criteria Fulfilled Comm Delay Since Last TYNDP	nents The pipeline enables to increase capacity of Csanádpalota (RO>HU) and C		gas		
	nents The pipeline enables to increase capacity of Csanádpalota (RO>HU) and C		gas		
Delay Since Last TYNDP	nents The pipeline enables to increase capacity of Csanádpalota (RO>HU) and C		gas		

	Ben	efits	
Main Driver	Market Demand		
Main Driver Explanation	n		
Benefit Description			
	Barı	riers	
Barrier Type	Description		
Regulatory	Low rate of return		
	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	10/04/2015	Grants for studies	Yes
Decision Date	16/10/2015	Grants for studies amount	Mln EUR 2.3
Website		Grants for works	No
Countries Affected	Hungary, Romania	Grants for works amount	Mln EUR 0.0
Countries Net Cost Bea	rer	Intention to apply for CEF	No decision yet taken
Additional Comments		Other Financial Assistance	No
		Comments	

General Comments

# Development on the Romanian territory of the NTS (BG-RO-HU-AT)-Phase II

TRA-A-1322		Project		Pipelin	e including	CS N	lon-FID
Update Date		15/08/	/2019			A	dvanced
Description	<ul> <li>The project consists in the extension of the gas transmission pipeline constructed in Phase 1, between the Podişor Technology and the extension of the compressor stations, as follows:</li> <li>Podişor – Recaş 32" x 63 bar gas transmission pipeline approximately 50 km long;</li> <li>extension of the three gas compressor stations (Podişor CS, Bibeşti CS and Jupa CS) by mounting an additional compres</li> <li>extension of the Horia GMS .</li> <li>After the implementatiopn of the project the following transmission capacities will be ensured:</li> <li>towards Hungary: 4.4 bcm/year;</li> <li>towards Bulgaria:1.5 bcm/year.</li> </ul>					J	
PRJ Code - PRJ Name	PRJ-G-047 - RO-HU Transmis	sion Corridor					
Capacity Increments Varia	ant For Modelling						
Doint		Organistan		Veer Freme (	Cac	To Cos Sustan	Conscitu
Point		Operator			~	To Gas System	Capacity
		SNTGN Transgaz S.A.		2022	HU	RO	78.12 GWh/d
Csanadpalota		SNTGN Transgaz S.A. SNTGN Transgaz S.A.			HU RO	RO HU	78.12 GWh/d
Csanadpalota Sponsors	1000/	SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Inform	mation	2022 2022	HU RO NDP and F	RO HU PCI Information	78.12 GWh/d 75.88 GWh/d
Csanadpalota Sponsors	100%	SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Inform Promoter	mation SNTGN Transgaz SA	2022 2022	HU RO NDP and F	RO HU PCI Information Yes (The Develop)	78.12 GWh/d 75.88 GWh/d ment Plan of the
Csanadpalota Sponsors	100%	SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Inform Promoter Operator	mation SNTGN Transgaz SA SNTGN Transgaz S.A.	2022 2022 Part of NDP	HU RO NDP and F	RO HU PCI Information	78.12 GWh/d 75.88 GWh/d ment Plan of the sion System 2018
Csanadpalota Sponsors	100%	SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Inform Promoter Operator Host Country	mation SNTGN Transgaz SA SNTGN Transgaz S.A. Romania	2022 2022 Part of NDP	HU RO NDP and F	RO HU PCI Information Yes (The Develop)	78.12 GWh/d 75.88 GWh/d ment Plan of the sion System 2018 - 2027
Csanadpalota Sponsors	100%	SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Inform Promoter Operator Host Country Status	mation SNTGN Transgaz SA SNTGN Transgaz S.A.	2022 2022 Part of NDP	HU RO NDP and F Nation	RO HU PCI Information Yes (The Develop)	78.12 GWh/d 75.88 GWh/d ment Plan of the
Csanadpalota Sponsors	100%	SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Inform Promoter Operator Host Country	mation SNTGN Transgaz SA SNTGN Transgaz S.A. Romania	2022 2022 Part of NDP NDP Number	HU RO NDP and F Nation	RO HU PCI Information Yes (The Develop)	78.12 GWh/d 75.88 GWh/d ment Plan of the sion System 2018 - 2027 7.1.2 14/12/2018
Point Csanadpalota Sponsors SNTGN Transgaz SA	100%	SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Inform Promoter Operator Host Country Status	mation SNTGN Transgaz SA SNTGN Transgaz S.A. Romania	2022 2022 Part of NDP NDP Number NDP Release I	HU RO NDP and F Nation	RO HU PCI Information Yes (The Developr nal Gas Transmiss	78.12 GWh/d 75.88 GWh/d ment Plan of the sion System 2018 - 2027, 7.1.2

Current TYNDP : T			
Schedule	Start Date	End Date	
Pre-Feasibility		12/2013	Considered TPA
Feasibility	01/2014	09/2015	Considered Tarif
FEED	07/2015	11/2018	Applied for Exem
Permitting	01/2016		Exemption Grant

12/2022

18/05/2015

2022

2022

18/05/2015

Supply Contracts

Construction

Commissioning

Grant Obtention

FID

Date

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Third-Party Access Regim	ie
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	No
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	ngth Compressor Power (MW) (MW)	Comissioning Year
Recaș - Horia		800	50	14	2022
	Total		50	14	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplyir emissions, supporting intermittent renewable generation and enhancing	•		ability, inter alia thro	ugh reducing
Specific Criteria Fulfilled Com	ments Market integration, Sustainability, Competition				
	Delays since last TYNDP				
Delay Since Last TYNDP	Delays since last TYNDP				
Delay Since Last TYNDP Delay Explanation	Delays since last TYNDP Delayed, in order to respond to the market demand as a result of the Op	en Season Procedure at IF	<sup>o</sup> Csandoo	dpalota	
		en Season Procedure at IF	? Csandoo	dpalota	

Main Driver Market Demand

Main Driver Explanation

Benefit Description

	CBCA	Financial Assistance			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision		
	not	Grants for studies	Yes		
Submissin Date		Grants for studies amount	Mln EUR 1.5		
Decision Date		Grants for works	No		
Website		Grants for works amount	Mln EUR 0.0		
Countries Affected		Intention to apply for CEF			
Countries Net Cost Bearer		Other Financial Assistance	No		
Additional Comments		Comments			
		General Comments			
		General Comments			

Benefits

# Developments for Fosmax (Cavaou) LNG 8.25 bcm expansion

TRA-N-269		Project		Pi	peline includi	ng CS	Non-FID
Update Date		15/08/2019				Nor	n-Advanced
Description	station already fits the potent	nts are needed to offer firm capacity for th ial extension. nd the Fos Cavaou terminal expansion are					tin de Crau
PRJ Code - PRJ Name	PRJ-G-049 - Fos Cavaou LNG	Terminal Expansion					
Capacity Increments Varia	nt For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Fos (Tonkin/Cavaou)		GRTgaz		2026	LNG_Tk_FRs	IB-FR4	327.00 GWh/c
					Comment: for	a 8.5 bcm expansio	n
Sponsors		General Information			NDP ar	d PCI Information	
GRTgaz	100%	Promoter	GRTgaz			es (Plan décennal d	
		Operator	GRTgaz	Part of	NDP du	réseau de transport	de GRTgaz 2018 2027
		Host Country	France		Fx	tension du terminal	
		Status	Planned	NDP Ni	umber		16,5 Gm <sup>3</sup> /ai
		Website	<u>Project's URL</u>	NDP Re	elease Date		04/02/2019
				NDP W	ebsite		NDP UR
				Current	ly PCI		No
				Priority	Corridor(s)		

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Schedule	Start Date End Date	
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction	01/2024	11/2026
Commissioning	2026	2026
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Arc Lyonnais		1,200	150		0
Eridan		1,200	220		0
Palleau CS				50	0
Perche		900	63		0
St-Avit CS				15	0
St-Martin de Crau CS				30	0
	Total		433	95	

	Dela	ys since last TYNDP
Delay Since Last TYNDP	2 years	
Delay Explanation	Waiting for LNG terminal decision	

## Expected Gas Sourcing

#### LNG ()

	Benefits				
Main Driver	Others				
Main Driver Explanation	This project enables to offer firm capcity to meet the developments planned by Fosmax at the LNG terminal of Fos Cavaou				
Benefit Description					
	Barriers				
Barrier Type	Description				
Others	The current context of LNG in Europe isn't favorable to the developements of LNG capacities				
Market	Lack of market support				

	СВСА	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

# Fos Cavaou LNG Terminal Expansion

LNG-N-227	Project	LNG Terminal	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	The project aims to expand the Fos Cavaou LNG terminal capacity from 8.25 bcm/y	up to 16.5 bcm/y, with an intermediate s	tep at 11bcm/y.
PRJ Code - PRJ Name	PRJ-G-049 - Fos Cavaou LNG Terminal Expansion		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Fosmax LNG	2023	LNG_Tk_FRs	IB-FR4	110.00 GWh/d
		Comment: intermedi	ate phase at 11 bcm/y	/ (i.e. +2.75 bcm/y	)
Fos (Tonkin/Cavaou)	Fosmax LNG	2025	LNG_Tk_FRs	IB-FR4	330.00 GWh/d
		Comment: corre	esponds to 16.5 bcm/y	(i.e. + 8.25 bcm/y	)

Sponsors			General Information	NDP and PCI Information		
Fosmax LNG	100%	Promoter	Fosmax LNG	Part of NDP	Yes (GRTgaz Ten Year Development plan	
		Operator	Fosmax LNG		2018-2027)	
		Host Country	France	NDP Number	Fos Cavaou Extension	
		Status	Planned	NDP Release Date	04/02/2019	
		Website	Project's URL	NDP Website	<u>NDP URL</u>	
			-	Currently PCI	No	
				Priority Corridor(s)	NSIW	

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Schedule	Start Date	End Date	Third-Party Access Reg	jime
re-Feasibility			Considered TPA Regime	
easibility			Considered Tariff Regime	
ED			Applied for Exemption	
ermitting			Exemption Granted	
pply Contracts				
D		06/2021	Exemption in entry direction	
onstruction	06/2021	06/2025	Exemption in exit direction	
ommissioning	2023	2025		
irant Obtention				
ite				

Technical Information (LNG)							
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning I Year	Load Factor (%)
Fos Cavaou LNG Terminal	Yes small scale	0.0 0	0.00	0	see below	0	0

Fulfil	hel	Criteria
i unn	ieu	Cincenta

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

**Delays since last TYNDP** 

Delay Since Last TYNDP Delay Explanation

market was not there, but situation may change soon

#### **Expected Gas Sourcing**

### LNG (DZ,CA,CY,LNG,NO,QA,RU,US,WO), LNG diverted from, or reloaded in other European LNG terminals (Spain for example).

	Ber	nefits		
Main Driver	Market Demand			
Main Driver Explanation	on Market based investments avoid future stranded assets and thus ensure the best use of money, in particular when public money is involved.			
Benefit Description	If there is a need to develop new infrastructures in Europe to all contribution to security of supply, the extension of Fos Cavaou L Cavaou is the best entry gate for LNG from Mediterranean, Mide Fos Cavaou will strongly contribute to market integration, comp project of a third gas pipeline through the Pyreneans. Moreover, development of LNG as an clean alternative fuel, to the benefit of	NG terminal is an excellent project, thanks t lle East and Atlantic toward the core of Euro etition, SoS and sustainability in the NSW co it should contribute to the energy transitio	to its location and its marginal cost. Indeed, Fos opean mainland gas market. The expansion of orridor. It is a high efficient alternative to the	
	Ва	riers		
Barrier Type	Description			
Barrier Type Political	Discrimination aiming at preventing the project to be recognized	<u> </u>	<u> </u>	
		5	beline through the Pyreneans. Incial Assistance	
Political	Discrimination aiming at preventing the project to be recognized CBCA No, we have not submitted an investment request yet,	5	<u> </u>	
Political	Discrimination aiming at preventing the project to be recognized CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Finan	ncial Assistance	
Political	Discrimination aiming at preventing the project to be recognized CBCA No, we have not submitted an investment request yet,	Finan Applied for CEF	ncial Assistance (3) No, we have not applied for CEF	
Political Decision Submissin Date	Discrimination aiming at preventing the project to be recognized CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Finan Applied for CEF Grants for studies	ncial Assistance (3) No, we have not applied for CEF No	
Political Decision Submissin Date Decision Date	Discrimination aiming at preventing the project to be recognized CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Finan Applied for CEF Grants for studies Grants for studies amount	ncial Assistance (3) No, we have not applied for CEF No Mln EUR 0.0	
Political Decision Submissin Date Decision Date Website	Discrimination aiming at preventing the project to be recognized CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Finan Applied for CEF Grants for studies Grants for studies amount Grants for works	ncial Assistance (3) No, we have not applied for CEA No Mln EUR 0.0 No	
Political Decision Submissin Date Decision Date Website Countries Affected	Discrimination aiming at preventing the project to be recognized CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	Finan Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount	ncial Assistance (3) No, we have not applied for CEF No Mln EUR 0.0 No Mln EUR 0.0	
	Discrimination aiming at preventing the project to be recognized CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	Finan Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF	ncial Assistance (3) No, we have not applied for CEF No Mln EUR 0.0 Mln EUR 0.0 No decision yet taker	

## Developments for Montoir LNG terminal 2.5 bcm expansion

TRA-N-258	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	This entry capacity increase at Montoir needs specific developments and core sys	stem developments (Looping of Artère du F	Perche).
PRJ Code - PRJ Name	PRJ-G-050 - Montoir LNG Terminal Expansion		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Montoir de Bretagne	GRTgaz	2023	LNG_Tk_FRn	IB-FR3	100.00 GWh/d	

Sponsors			General Information	NDP and PCI Information	
GRTgaz	100%	Promoter	GRTgaz		Yes (Plan décennal de développement
		Operator	GRTgaz	Part of NDP	du réseau de transport de GRTgaz 2018-
		Host Country	France		2027)
		Status	Planned	NDP Number	Augmentation des capacités d'entrée à partir du terminal de Montoir de 10 à
		Website	Project's URL		12,5 Gm³/an
				NDP Release Date	04/02/2019
				NDP Website	<u>NDP URL</u>
				Currently PCI	No
				Priority Corridor(s)	

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Schedule	chedule Start Date End Date	
Pre-Feasibility		12/2011
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction	01/2024	12/2026
Commissioning	2023	2023
Grant Obtention		
Date		

Pipelines and Compressor Sta	ations				
Pipeline Section	Pipeline Comment		ngth (m)	Compressor Power (MW)	Comissioning Year
Artère du Maine	Ending the looping of the pipeline	1,050 2	.00		0
Artère du Perche	Ending the looping of the pipeline	900	53		0
Auvers-le-Hamon CS	Station adaptation			0	0
	Total	2	63	0	
	Delays since last TYNDP				
Delay Since Last TYNDP	2 years				
Delay Explanation	Waiting for terminal promoter decision				
	Expected Gas Sourcing				
LNG ()					

	Ben	efits	
Main Driver	Others		
Main Driver Explanatio	n Developments of GRTgaz network required to offer firm capacity	to the planned expansion of the LNG te	rminal at Montoir de Bretagne
Benefit Description			
	Bar	riers	
Barrier Type	Description		
Market	Lack of market support		
	CBCA	Fin	nancial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bea	arer	Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

# Montoir LNG Terminal Expansion

LNG-N-225	Project	LNG Terminal	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	The project aims to expand the Montoir de Bretagne LNG terminal capacity from bcm/y.	10 bcm/y up to 16.5 bcm/y, with an interm	ediate step at 12.5
PRJ Code - PRJ Name	PRJ-G-050 - Montoir LNG Terminal Expansion		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Elengy	2023	LNG_Tk_FRn	IB-FR3	100.00 GWh/d
Montoir de Protogne		Comment: intermedic	ate phase at 12.5 bcm	/y (i.e. +2,5 bcm/y	)
Montoir de Bretagne	Elengy	2025	LNG_Tk_FRn	IB-FR3	260.00 GWh/d
		Comment: corr	responds to 16.5 bcm/	/y (i.e. + 6.5 bcm/y	)

Sponsors	General Information			DP and PCI Information
Elengy 100%	Promoter	Elengy	Part of NDP	Yes (GRTgaz Ten Year Development plan
	Operator	Elengy		2018-2027)
	Host Country	France		Montoir Extension
	Status	Planned	NDP Release Date	04/02/2019
	Website	Project's URL	NDP Website	<u>NDP URL</u>
			Currently PCI	No
			Priority Corridor(s)	NSIW

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Schedule	Start Date	End Date	Third-Party Access Reg	gime
e-Feasibility			Considered TPA Regime	
asibility			Considered Tariff Regime	
ED			Applied for Exemption	
ermitting			Exemption Granted	
upply Contracts				
D		06/2021	Exemption in entry direction	
onstruction	06/2021	06/2025	Exemption in exit direction	
ommissioning	2023	2025		
rant Obtention				
te				

Technical Information (LNG)							
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
Montoir LNG Terminal	Yes small scale	0.0 0	0.00	0	sea below	0	0

#### **Fulfilled Criteria**

### Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

**Delays since last TYNDP** 

Delay Since Last TYNDP

Delay Explanation

market was not there, but situation may change soon

#### **Expected Gas Sourcing**

## LNG (DZ,CA,CY,LNG,NO,QA,RU,US,WO), LNG diverted from, or reloaded in other European LNG terminals (Spain for example).

	Ber	efits		
Main Driver	Market Demand			
Main Driver Explanation	on Market based investments avoid future stranded assets and thus	ensure the best use of money, in particular	r when public money is involved.	
Benefit Description Benefit Description Benefi				
	Bar	riers		
Barrier Type	Description			
Political	Discrimination aiming at preventing the project to be recognized	as an efficient alternative to a third gas pip	peline through the Pyreneans.	
	CRCA	Einan	ocial Assistance	
	CBCA		ncial Assistance	
Decision	CBCA No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(3) No, we have not applied for CE	
Decision	No, we have not submitted an investment request yet,	Applied for CEF Grants for studies	(3) No, we have not applied for CE N	
	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF Grants for studies Grants for studies amount	(3) No, we have not applied for CE N Mln EUR 0.	
Submissin Date	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF Grants for studies Grants for studies amount Grants for works	(3) No, we have not applied for CE N Mln EUR 0. N	
Submissin Date Decision Date	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount	(3) No, we have not applied for CE N Mln EUR 0. N Mln EUR 0.	
Submissin Date Decision Date Website	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF	(3) No, we have not applied for CE N Mln EUR 0. N Mln EUR 0. No decision yet take	
Decision Submissin Date Decision Date Website Countries Affected Countries Net Cost Be	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF Other Financial Assistance	(3) No, we have not applied for CEI No Mln EUR 0.0 No Mln EUR 0.0 No decision yet taker Ye	
Submissin Date Decision Date Website Countries Affected	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF	ncial Assistance (3) No, we have not applied for CEH No Mln EUR 0.0 No decision yet taker Ye. small scale studies and work	

## Entry capacity expansion GATE terminal

TRA-N-192		F	Project		Pip	Pipeline including CS Non-FID		Non-FID
Update Date			15/08/2019				Non	-Advanced
Description	Expansion of entry capa The project consists of a Wijngaarden		vork line on a section of the existing ro	oute between	the GATE	E terminal and the	compressor static	on at
PRJ Code - PRJ Name	PRJ-G-054 - LNG							
Capacity Increments Varia	nt For Modelling							
Point		Op	perator	Ň	Year F	rom Gas System	To Gas System	Capacity
Gate Terminal (I)		Ga	sunie Transport Services B.V.	2	2022	LNG_Tk_NL	NL	121.00 GWh/d
Sponsors	·		General Information			NDP and	PCI Information	
Gas Transport Services	1(	00% Promoter	Gasunie Transport	Services B.V.	Part of N	IDP Yes	(Netwerk Ontwikk	kelingsplan 2017,
1		Operator	Gasunie Transport S	Services B.V.	NDP Nur	mber		6.5.2
		Host Cour	itry /	Netherlands	NDP Rele	ease Date		
		Status		Planned	NDP We	bsite		<u>NDP URI</u>
		Website			Currently	y PCI		No
					Priority C	Corridor(s)		

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hedule Start Date	End Date	Third-Party Access
easibility		Considered TPA Regime
ibility		Considered Tariff Regime
		Applied for Exemption
itting		Exemption Granted
Contracts		
		Exemption in entry direction
ruction		Exemption in exit direction
missioning 2022	2022	
nt Obtention		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Maasvlakte - Wijngaarden		1,200	25		0
	Total		25		

		Benefits	
Main Driver	Market Demand		
Main Driver Explana	ition		
Benefit Description			

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	CBCA		Financial Assis	tance
	No, we have not submitted an investment request yet,	Applied for CEF		(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies		No
Culoria Data	not	Grants for studies amount		Mln EUR 0.0
Submissin Date		Grants for works		No
Decision Date		Grants for works amount		Mln EUR 0.0
Website		Intention to apply for CEF		
Countries Affected		Other Financial Assistance		No
Countries Net Cost Bearer		Comments		
Additional Comments				
Additional Comments		General Comments		

		Gate terminal phase	3						
LNG-A-50		Project		LNG Terminal	l N	lon-FID			
Update Date	25/08/2020 Non-Adva								
Description	Increase the capacity by 4 billion cu	Increase the capacity by 4 billion cubic meters per year from the current value of 12 BCM p.a. to 16 BCM p.a							
PRJ Code - PRJ Name	PRJ-G-054 - LNG								
Capacity Increments Varia	nt For Modelling								
Point		Operator	Year	From Gas System	To Gas System	Capacity			
		Gate Terminal B.V.	2022	LNG_Tk_NL	NL	60.00 GWh/			

 Gate Terminal (I)
 Comment: Phase 1

 Gate Terminal B.V.
 2024
 LNG\_Tk\_NL
 NL
 61.00 GWh/d

 Comment: Phase 2

Sponsors	General Information		NDP and PC	I Information
0%	Promoter	Gate	Part of NDP	Yes (GTS)
	Operator	Gate Terminal B.V.	NDP Number	unknown see GTS
	Host Country	Netherlands	NDP Release Date	01/03/2018
	Status	Planned	NDP Website	<u>NDP URL</u>
	Website	Project's URL	Currently PCI	No
			Priority Corridor(s)	

Current TYNDP : TYN	NDP 2020 - An	nex A			Page 208 of 773
Schedule	Start Date	End Date		Third-Party Access	Regime
Pre-Feasibility		06/2010		Considered TPA Regime	Not Applicable
Feasibility	06/2018	06/2018		Considered Tariff Regime	Not Applicable
FEED	06/2020	06/2020		Applied for Exemption	Yes
Permitting	06/2009	06/2009		Exemption Granted	Yes
Supply Contracts		06/2020			
FID		06/2020		Exemption in entry direction	0.00%
Construction	06/2020	06/2022		Exemption in exit direction	100.00%
Commissioning	2022	2024			
Grant Obtention Date	31/12/2007	31/12/2007			
Delay Since Last TYN Delay Explanation		2 years more time for the ma	arket to develop and finalise commercial discussions.		
			Expected Gas Sourcing		
LNG ()					
			Comments about the Third-Party Access Reg	ime	
The exemption was a what to fill in regulat			tion has been granted by the Dutch Minister on 14 Jul	y 2007; the EC gave its approval on 2 Octobe	er 2007. Was not sure
			Benefits		
Main Driver	Market Den	nand			
Main Driver Explanat	tion				
Benefit Description		0	ease of competition) Gate terminal obtained an exemp onstrated that Gate terminal enhanced both security of		

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	CBCA	Financi	ial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Cultura in Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer			NO
Additional Comments		Comments	
		General Comments	

# LNG terminal in northern Greece / Alexandroupolis - LNG Section

LNG-N-62	Project	LNG Terminal	Non-FID
Update Date	22/09/2020		Advanced
Description	<ul> <li>Please note that this part refers only to LNG section of the Project, i.e. the floating Project is addressed in TRA-N-063.</li> <li>The project consists of an LNG offshore Floating Storage Regasification Unit, a N connecting the floating unit to the Greek National Natural Gas System at the are TSO, will build and operate a metering &amp; regulating station.</li> <li>The floating unit, will be stationed in the sea of Thrace, 17.6km SW of Alexandro nearest shore. It will have up to 170,000m3 LNG storage capacity and a gas sendered.</li> </ul>	Nooring & a Pipeline system (24km Subsea ar ea of Amfitriti, 5.5km NE of Alexandroupolis w pupolis in NE Greece, at an offshore distance of	nd 4km Onshore), vhere, DESFA, the NNG of 5.4 n.m. from the
PRJ Code - PRJ Name	PRJ-G-055 - LNG terminal in northern Greece / Alexandroupolis		

Capacity Increments Variant For Mod	ennig	0			Mara a	Energy Care Carl	Ta Gaa Gaat	Gaugait
Point		Operato	or		Year	From Gas System	To Gas System	Capacity
Alexandroupolis LNG		Gastrad	le S.A.		2022	LNG_Tk_GR	GRa	253.10 GWh/d
				Comment: I	ncremer	nt available 100% d	it operation start-up	Э.
Sponsors			General Information			NDP ar	nd PCI Information	
LNG-N-062		Promoter		Gastrade S.A.	Part of	NDP NO	o ((6) others - please	e comment below)
GASTRADE S.A.	100%	Operator		Gastrade S.A.	NDP N	lumber		
TRA-N-063		Host Country		Greece	NDP R	elease Date		
GASTRADE S.A.	100%	Status		Planned	NDP V	Vebsite		
	10070	Website		Project's URL	Curren	itly PCI		Yes (6.9.1 (2020))
					Priority	y Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		12/2010
Feasibility	01/2014	06/2014
FEED	12/2020	12/2020
Permitting	12/2020	12/2020
Supply Contracts		
FID		03/2020
Construction	04/2020	10/2021
Commissioning	2022	2022
Grant Obtention Date	01/04/2020	01/04/2020

		Technical Inform	nation (LN	NG)				
Regasification Facility	Reloading Ability Project Phase	Expected Increment S (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
LNG terminal in northern Greece / Alexandroupolis	Yes LNG terminal	8.3	170,000	22,600,000.00	170,000	The increments correspond to the maximum flowrates	2022	40

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	Market Integration - Regional (SEE + Serbia + North Macedonia) and beyond (e.g. Hungary and through across the NSI gas corridor) Security of Supply through inter alia source and route diversification- Greece, Bulgaria, Serbia, North Macedonia, Hungary, Ukraine, Turkey Enhances competition in the region by introducing new sources and routes of supply Sustainability - Supports back up to renewables and power to gas.

#### .

Irrent TYNDP : TYNDF	2020 - Annex A	Page 212 of 773
	Delays since last TYNDP	
Delay Since Last TYNDP	24 months in commissioning date / 30 months delay in FID compare	e to TYNDP2015 time schedule
Delay Explanation	(DEPA) for acquiring stakes in GASTRADE is estimated to be complet critical mass terminal use agreements are anticipated by Oct.2019. Th 31.12.2018 where 20 participants from SEE Europe & beyond express Completion of financing agreements and EPC contract awards (subje Tendering procedure for the supply of the FSRU and for the EPCI of t	017. Final negotiations with Bulgartransgaz and Public Gas Corporation ted by 3Q2019. GASTRADE initiated a Market Test in October 2018 and he first phase of the Market Test (EoI) was successfully completed on sed their interest for booking up to 12.2 bcm/y regasification capacity. ect to FID) required for FID. GASTRADE initiated on 21.09.2018 the the pipeline. The first phase of the Tenders (Pre-qualification and EoI) was and second phase of the Tender (RfP) will launch in Q3 2019. FID is planne
	Expected Gas Sourcing	
LNG (WO), Multi-source	l supply	
	Comments about the Third-Party Acces	ess Regime
31.12.2018 with a positiv	ssued the Invitation for Expression of Interest for regasification capacity reservation e outcome. Twenty companies from SEE Europe and beyond expressed their inte ng offers) will be launched once the relevant Guidelines and Notice are approved	erest for a total regasification capacity of up to 12.2 bcm/year. The second
	Benefits	
Main Driver	Regulation SoS	
Main Driver Explanation	Main drivers: 1. Expressed requirement for diversification of supply sources and Hungary and Ukraine) enhancing security of supply, competition and pricing opt demand opportunities for the project 2. Possible discontinuation of gas flows tra	tions potentially resulting in energy costs reduction creates market /
Benefit Description	LNG terminal in northern Greece will: Secure new natural gas quantities for the s supply of these markets. Diversify the supply sources and routes in particular wit Romania, N. Macedon, Hungary, Ukraine) and to this extent lift existing isolation to multiple sources both existing and new such as US and East Med gas to the n alternative/additional supply quantities when/if required and the interoperability technical design will include possibility for LNG-reloading ability for the purpose decrease of CO2 emissions from power production and elimination of the harmf	th regards to markets with limited supply options (Bulgaria, Serbia, n with an aim to reduce dependency on Russian gas whilst providing acces markets of SEE. Support the South Corridor project(s) by providing y of systems and the creation of a regional gas trading hub. The Project e of supporting LNG bunkering activities and and will contribute to the

Parriar Turna	Description					
Barrier Type	Description					
Regulatory	Tariff levels for the Project should enjoy the same regulatory regime as the one applied for other competitive regulated infrastructures in the area in order for the Project to be commercially attractive to potential regional offtakers and therefore financially viable. Tariff levels will determine the required financing structure (equity/grant/debt ratios) and will be decided upon release of the TPA Exemption decision.					
Permit Granting	Completed					
Political	No political barriers. On the contrary, there is clear and declared Political support for the Project from the impacted Member States and in particular the governments of Greece, Bulgaria, Romania and Serbia. Political stability in the region of the Project's direct influence will support commercial vial of the Project. Both Greece and Bulgaria have included the Project in their Energy Strategies mentioning the benefits of security of supply, diversifica routes, price convergence and sustainability.					
Others	Delays in the implementation/start up of new regional gas infrastructures (IGB, IBS, BRUA) and in the upgrade of existing ones including reverse flow availability. The most critical one is the timing of start-up of the Interconnector Greece-Bulgaria (IGB). Also, availability of capacity in the Greek, Bulgarian and Romanian Transmission Systems and reverse flow capacity in Trans Balkan enabling flows from the Project to Ukraine. Finally, reverse flow functionality to the Turkey-Greece Interconnector will open up the Turkish market to the Project. Regarding Financing: The project received grants for studies (from the 1st CEF Energy Call-August 2014) and is eligible to receive grants from the Greek structural programs (NSRF). Award of such Public financing for works will be critical for the Project's commercial viability.					
Market	The markets in SEE are not mature. Currently all gas transactions are done on a bilateral basis and no price transparency exists. Creation of a trading hub in the region with multiple supply options will generate significant opportunities for the marketing of gas imported through the LNG Alexandroupolis floating terminal. Recent interconnection agreements at the border IPs between EU member states in SE Europe are enhancing Project commercialization opportunities. Critical to the success of the Project are the transmission tariff structures and levels. The ability for LNG to penetrate markets without direct access to LNG terminals (e.g. Bulgaria, Serbia, Romania, Ukraine, Hungary, etc.) relates directly to the competitiveness of the landed prices of LNG into these markets vis-a-vis pipeline gas. To this extent, gas transmission tariffs from LNG terminal evacuation pipelines all the way through to end consumers should be reduced to allow for competitive pricing at end consumer level.					
inancing	The Project has been awarded with grants for studies (CEF 2014 Call). The Project has secured the incentive to apply for grants within the National structural funds (NSRF - National Strategic Reference Framework). Award of such Public financing will be critical for the Project's commercial viability. Project's CBA has been prepared and consultated with JASPERS. The CBA will be submitted officially to DG Comp through the Ministry of Economy & Development within July 2019 (Notification for State Aid). The company has already signed a Mandate Letter with a major commercial bank of Greece for the total amount of dept. The target is that the terms of the debt financing agreement will be finalized before FID. The debt financing will be determined by contractual agreements regarding capacity reservation at the Project.					
Market	Lack of market maturity					
inancing	Availability of funds and associated conditions					

submitted to DG Comp within July.

documentation.

Gastrade has already consulted with Jaspers the Cost Benefit Analysis (CBA) for the Project. The CBA will be

submitted to DG Comp within the Notification

	СВСА	Financial Assistance			
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision		
Submissin Date		Grants for studies	Yes		
Decision Date		Grants for studies amount	Mln EUR 0.6		
Website		Grants for works	No		
Countries Affected		Grants for works amount	Mln EUR 0.0		
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies only		
Additional Comments	CBCA is non applicable for the Project	Other Financial Assistance	No		
		Comments			
			The project is included in the Major Project List of the Operational Programme; eligible for grant financing from the National Strategic Reference Framework (NSRF). Notification for State Aid for the Project's financing to be		

General Comments

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# LNG terminal in northern Greece / Alexandroupolis - Pipeline Section

TRA-N-63		Project			Pipeline including	g CSN	Non-FID				
Update Date		22/09/2020				A	Advanced				
Description	Please note that this part refers only to the pipeline section of the Project. The LNG section of the Project is addressed in LNG-N-062. The project consists of an LNG offshore Floating Storage Regasification Unit, a Mooring a Pipeline system (24km Subsea and 4km Onshore), connecting the floating unit to the Greek National Natural Gas System at the area of Amfitriti, 5.5km NE of Alexandroupolis where, DESFA, the NNGS TSO, will build and operate a metering regulating station. The floating unit, will be stationed in the sea of Thrace, 17.6km SW of Alexandroupolis in NE Greece, at an offshore distance of 5.4 n.m. from the nearest shore. It will have up to 170,000m3 LNG storage capacity and a gas send out capacity of up to 900,000 Nm3/h corresponding to 8.3 bcm/y.										
PRJ Code - PRJ Name	PRJ-G-055 - LNG terminal in	northern Greece / Alexandroupolis									
Capacity Increments Variant	For Modelling										
Point		Operator		Year	From Gas System	To Gas System	Capacity				
Alexandroupolis Amphitriti		Gastrade S.A.		2022	GRa	IB-GRk	253.10 GWh/d				
			at operation start-up.								
Sponsors	General Information			NDP and PCI Information							
LNG-N-062		Promoter	Gastrade S.A.	Part o	f NDP No (	(6) others - please	comment below,				
GASTRADE S.A.	100%	Operator	Gastrade S.A.	NDP Number							
TRA-N-063		Host Country	Greece	NDP Release Date							
GASTRADE S.A.	100%	Status	Planned	NDP Website							
		Website	Project's URL	Currently PCI			Yes (6.9.1 (2020),				
				Priorit	y Corridor(s)						

Current	TYNDP	: TYNDP	2020 -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2010
Feasibility	01/2014	06/2014
FEED	01/2020	01/2020
Permitting	01/2020	01/2020
Supply Contracts		
FID		03/2020
Construction	04/2020	10/2021
Commissioning	2022	2022
Grant Obtention Date	01/04/2020	01/04/2020

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year	
Alexandroupolis LNG terminal - M/	/R Amfitriti	762	28	0	2021	
	Total		28	0		
	Fulfilled Criteria					
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas					
	emissions, supporting intermittent renewable generation and enhancing de	ployment of renewable	. yas			
Specific Criteria Fulfilled Comments	Market Integration - Regional (SEE + Serbia + North Macedonia) and beyor s of Supply through inter alia source and route diversification- Greece, Bulgar competition in the region by introducing new sources and routes of supply	nd (e.g. Hungary and th ria, Serbia, North Mace	rough ac donia, Hu	ngary, Ukraine, Turke	y Enhances	
Specific Criteria Fulfilled Comments	Market Integration - Regional (SEE + Serbia + North Macedonia) and beyor s of Supply through inter alia source and route diversification- Greece, Bulgar	nd (e.g. Hungary and th ria, Serbia, North Mace	rough ac donia, Hu	ngary, Ukraine, Turke	y Enhances	

	Page 217 of 7 Page 217 of 7
	Delays since last TYNDP
Delay Since Last TYNDP	24 months in commissioning date / 30 months delay in FID compare to TYNDP2015 time schedule
Delay Explanation	Permitting phase completed 1Q2015 and FEED completed in Sept. 2017. Final negotiations with Bulgartransgaz and Public Gas Corporation (DEPA) for acquiring stakes in GASTRADE is estimated to be completed by 3Q2019. GASTRADE initiated a Market Test in October 2018 and critical mass terminal use agreements are anticipated by Oct.2019. The first phase of the Market Test (EoI) was successfully completed on 31.12.2018 where 20 participants from SEE Europe beyond expressed their interest for booking up to 12.2 bcm/y regasification capacity. Completion of financing agreements and EPC contract awards (subject to FID) required for FID. GASTRADE initiated on 21.09.2018 the Tendering procedure for the supply of the FSRU and for the EPCI of the pipeline. The first phase of the Tenders (Pre-qualification and EoI) we completed in April 2019. Evaluation procedure has been concluded and second phase of the Tender (RfP) will launch in Q3 2019. FID is plant for 1Q 2020 and COD for 1Q 2022.
	Expected Gas Sourcing
NG (WO), The pipeline	will be fed with regasified LNG from the floating unit (LNG-N-062) -hence it means various sources.
conducted in order to se Expression of Interest).	Comments about the Third-Party Access Regime 8 submitted an Application for TPA Exemption to the NRA. According to par. 6 of Article 36 of the EU Directive 73/2009/EC, a Market Test has to be eek the interest of the market for the Project. On 29.06.2018 GASTRADE submitted to RAE the draft Guidelines for the first phase of the Market Test The Guidelines were approved by RAE on 25.09.2018. Following this GASTRADE submitted to RAE for approval the draft Eol Notice which was approved of
conducted in order to se Expression of Interest). 8.10.2018. GASTRADE i 81.12.2018 with a positiv	8 submitted an Application for TPA Exemption to the NRA. According to par. 6 of Article 36 of the EU Directive 73/2009/EC, a Market Test has to be eek the interest of the market for the Project. On 29.06.2018 GASTRADE submitted to RAE the draft Guidelines for the first phase of the Market Test
conducted in order to se Expression of Interest). 8.10.2018. GASTRADE i 81.12.2018 with a positiv	8 submitted an Application for TPA Exemption to the NRA. According to par. 6 of Article 36 of the EU Directive 73/2009/EC, a Market Test has to be seek the interest of the market for the Project. On 29.06.2018 GASTRADE submitted to RAE the draft Guidelines for the first phase of the Market Test The Guidelines were approved by RAE on 25.09.2018. Following this GASTRADE submitted to RAE for approval the draft Eol Notice which was approved ssued the Invitation for Expression of Interest for regasification capacity reservation in the Project on 30.10.2018. The procedure was completed on <i>y</i> e outcome. Twenty companies from SEE Europe and beyond expressed their interest for a total regasification capacity of up to 12.2 bcm/year. The second
conducted in order to se Expression of Interest). 8.10.2018. GASTRADE i 81.12.2018 with a positiv	8 submitted an Application for TPA Exemption to the NRA. According to par. 6 of Article 36 of the EU Directive 73/2009/EC, a Market Test has to be sek the interest of the market for the Project. On 29.06.2018 GASTRADE submitted to RAE the draft Guidelines for the first phase of the Market Test The Guidelines were approved by RAE on 25.09.2018. Following this GASTRADE submitted to RAE for approval the draft Eol Notice which was approved ssued the Invitation for Expression of Interest for regasification capacity reservation in the Project on 30.10.2018. The procedure was completed on <i>ve</i> outcome. Twenty companies from SEE Europe and beyond expressed their interest for a total regasification capacity of up to 12.2 bcm/year. The second ng offers) will be launched once the relevant Guidelines and Notice are approved by RAE (3Q2019).
conducted in order to se Expression of Interest). 18.10.2018. GASTRADE i 31.12.2018 with a positiv phase (request for Bindi Main Driver	8 submitted an Application for TPA Exemption to the NRA. According to par. 6 of Article 36 of the EU Directive 73/2009/EC, a Market Test has to be eek the interest of the market for the Project. On 29.06.2018 GASTRADE submitted to RAE the draft Guidelines for the first phase of the Market Test The Guidelines were approved by RAE on 25.09.2018. Following this GASTRADE submitted to RAE for approval the draft Eol Notice which was approved ssued the Invitation for Expression of Interest for regasification capacity reservation in the Project on 30.10.2018. The procedure was completed on we outcome. Twenty companies from SEE Europe and beyond expressed their interest for a total regasification capacity of up to 12.2 bcm/year. The secon ng offers) will be launched once the relevant Guidelines and Notice are approved by RAE (3Q2019). Benefits

Barrier Type	Description
Regulatory	Tariff levels for the Project should enjoy the same regulatory regime as the one applied for other competitive regulated infrastructures in the area in order for the Project to be commercially attractive to potential regional offtakers and therefore financially viable. Tariff levels will determine the required financing structure (equity/grant/debt ratios) and will be decided upon release of the TPA Exemption decision.
Permit Granting	Completed
Political	No political barriers. On the contrary, there is clear and declared Political support for the Project from the impacted Member States and in particular from the governments of Greece, Bulgaria, Romania and Serbia. Political stability in the region of the Project's direct influence will support commercial viability of the Project. Both Greece and Bulgaria have included the Project in their Energy Strategies mentioning the benefits of security of supply, diversification or routes, price convergence and sustainability.
Others	Delays in the implementation/start up of new regional gas infrastructures (IGB, IBS, BRUA) and in the upgrade of existing ones including reverse flow availability. The most critical one is the timing of start-up of the Interconnector Greece-Bulgaria (IGB). Also, availability of capacity in the Greek, Bulgarian and Romanian Transmission Systems and reverse flow capacity in Trans Balkan enabling flows from the Project to Ukraine. Finally, reverse flow functionality to the Turkey-Greece Interconnector will open up the Turkish market to the Project. Regarding Financing: The project received grants for studies (from the 1st CEF Energy Call-August 2014) and is eligible to receive grants from the Greek structural programs (NSRF). Award of such Public financing for works will be critical for the Project's commercial viability.
Market	The markets in SEE are not mature. Currently all gas transactions are done on a bilateral basis and no price transparency exists. Creation of a trading hub in the region with multiple supply options will generate significant opportunities for the marketing of gas imported through the LNG Alexandroupolis floating terminal. Recent interconnection agreements at the border IPs between EU member states in SE Europe are enhancing Project commercialization opportunities. Critical to the success of the Project are the transmission tariff structures and levels. The ability for LNG to penetrate markets without direct access to LNG terminals (e.g. Bulgaria, Serbia, Romania, Ukraine, Hungary, etc.) relates directly to the competitiveness of the landed prices of LNG into these markets vis-a-vis pipeline gas. To this extent, gas transmission tariffs from LNG terminal evacuation pipelines all the way through to end consumers should be reduced to allow for competitive pricing at end consumer level.
inancing	The Project has been awarded with grants for studies (CEF 2014 Call). The Project has secured the incentive to apply for grants within the National structural funds (NSRF - National Strategic Reference Framework). Award of such Public financing will be critical for the Project's commercial viability. Project's CBA has been prepared and consultated with JASPERS. The CBA will be submitted officially to DG Comp through the Ministry of Economy Development within July 2019 (Notification for State Aid). The company has already signed a Mandate Letter with a major commercial bank of Greece for the total amount of dept. The target is that the terms of the debt financing agreement will be finalized before FID. The debt financing will be determined by contractual agreements regarding capacity reservation at the Project.
inancing	Availability of funds and associated conditions
Market	Lack of market maturity

	CBCA		Financial Assistance
No,	we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
		Grants for studies	Ye
		Grants for studies amount	Mln EUR 0.
		Grants for works	٨
d		Grants for works amount	Mln EUR 0.
st Bearer		Intention to apply for CEF	Yes, for studies on
nents	CBCA is non applicable for the Project	Other Financial Assistance	٨
lents		Comments	
		General Comments	The project is included in the Major Project List of th Operational Programme; eligible for grant financing from the National Strategic Reference Framework (NSRF, Notification for State Aid for the Project's financing to b submitted to DG Comp within July. Gastrade has alread consulted with Jaspers the Cost Benefit Analysis (CBA) for the Project. The CBA will be submitted to DG Comp within the Notification documentatio

#### Slovenian-Hungarian interconnector

TRA-N-325	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Advanced
Description	Plinovodi, Snam Retegas and FGSZ agreed to create a new bidirectional gas ro transmission route between the three countries. The shippers submitted highe two stage project was suggested. Phase 1 DN600 pipeline between Nagykaniz Nagykanizsa and Kozármisleny (150 km) and one compressor station at Nagy transmission corridor was suggested.	r capacity demand, therefore the TSO-s reconsid zsa and Tornyiszentmiklós (41 km), phase 2 DN6	dered the project and 500 pipeline between
PRJ Code - PRJ Name	PRJ-G-060 - Hungary – Slovenia interconnection		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	FGSZ Ltd.	2023	HU	SI	12.80 GWh/d
				Comment: phase I	,
	FGSZ Ltd.	2023	SI	HU	12.80 GWh/d
			Comment: phase I		
Pince (SI) / Tornyszentmiklos (HU)	FGSZ Ltd.	2025	HU	SI	46.50 GWh/d
		Comment: p	ohase II. total capacity	/ up to 59,3 GWh/d	1
	FGSZ Ltd.	2025	SI	HU	46.50 GWh/d
		Comment: r	phase II total capacity	un to 50 3 GWh/c	I

Comment: phase II. total capacity up to 59,3 GWh/d

Sponsors		General Information		NDP and PCI Information		
FGSZ Ltd.	100%	Promoter	FGSZ Ltd.	Part of NDP	Yes (Hungarian TYNDP 2017)	
		Operator	FGSZ Ltd.	NDP Number	12.12.	
		Host Country	Hungary	NDP Release Date	19/12/2018	
		Status	Planned	NDP Website	NDP URL	
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.23 (2020))	
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		12/2015
Feasibility	05/2016	10/2019
FEED	03/2021	02/2022
Permitting	01/2021	03/2022
Supply Contracts		04/2022
FID		08/2020
Construction	03/2022	10/2025
Commissioning	2023	2025
Grant Obtention		
Date		

Pipelines and Compressor Stations							
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year		
Nagykanizsa-Kozármisleny	phase II.	600	150	12	2025		
Nagykanizsa-Tornyiszentmiklós	phase I.	600	41		2023		
	Total		191	12			
	Fulfilled Criteria						
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through Specific Criteria Fulfilled appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas						
Specific Criteria Fulfilled Comments and diversification of routes and gas sources. Infrastructure allowing the increase of security of supply for the region. Price convergence and market integration.							

Expected Gas Sourcing

Algeria, Caspian Region, Libya, Russia, LNG (HR,IT), Romania

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	Ben	efits			
Main Driver	Others				
Main Driver Explanation					
Benefit Description	Infrastructure to enable reverse flow and to increase diversification of entry points and use of regional storage capacities Increase of flexibility and diversification of routes and gas sources. Infrastructure allowing the increase of security of supply for the region. Price convergence and market integration.				
	Barı	iers			
Barrier Type	Description				
Financing	Availability of funds and associated conditions				
Regulatory	Low rate of return				
Market	Lack of market maturity				
	Intergovernmer	ntal Agreements			
Agreement	Agreement Description		Is Signed Agreement Signature Da		
Memorandum of Unders	standing (MOU)		No 26/11/2009		
	CBCA	Fin	ancial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CE		
	but we do plan to submit it	Grants for studies	٨		
Submissin Date		Grants for studies amount	Mln EUR 0		
Decision Date		Grants for works	Ŷ		
Website		Grants for works amount	Mln EUR 0		
Countries Affected		Intention to apply for CEF	No decision yet take		
Countries Net Cost Beare	er	Other Financial Assistance	٨		
Additional Comments		Comments			
		General Comments			

### R15/1 Pince - Lendava - Kidričevo

TRA-N-112	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Advanced
Description	Interconnector with the transmission system of the Hungarian TSO. Cross-bord for Slovenian gas suppliers, enabling access to LNG terminals in northern Adria Hungarian and Slovenian gas market and improving of N-1 infrastructure stan PCI 6.23. Hungary – Slovenia interconnection (Nagykanizsa - Tornyiszentmikló	atic and other gas sources for Hungarian gas sundard for SI and HU.	3
PRJ Code - PRJ Name	PRJ-G-060 - Hungary – Slovenia interconnection		

Capacity Increm	nents Variant For Modelling					
	Variant : Variant1 (Default)	Most likely scenario				
Point		Operator	Year	From Gas System	To Gas System	Capacity
		Plinovodi d.o.o.	2023	HU	SI	12.90 GWh/d
					Comment: Phase 1	
		Plinovodi d.o.o.	2023	SI	HU	12.90 GWh/d
					Comment: Phase 1	
		Plinovodi d.o.o.	2025	HU	SI	36.10 GWh/d
Pince (SI) / Tor	nyszentmiklos (HU)				Comment: Phase 2	
				Total cap	pacity is 49 GWh/d.	
		Plinovodi d.o.o.	2025	SI	HU	36.10 GWh/d
					Comment: Phase 2	
				Total cap	pacity is 49 GWh/d.	
Capacity Increm	nents Variant(s) For Information Only					
	Variant : Variant2	Increased DN				
Point		Operator	Year	From Gas System	To Gas System	Capacity
		Plinovodi d.o.o.	2026	HU	SI	59.30 GWh/d
Pince (SI) / Tor	nyszentmiklos (HU)				Comment: DN600	
		Plinovodi d.o.o.	2026	SI	HU	59.30 GWh/d

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#### Pince (SI) / Tornyszentmiklos (HU)

Comment: DN600

Sponsors			General In	formation	NDP a	nd PCI Information
Plinovodi		100%	Promoter	Plinovodi d.o.o.	Part of NDP	Yes (TYNDP for the period 2019-2028)
		0	Operator	Plinovodi d.o.o.	NDP Number	C3
			Host Country	Slovenia	NDP Release Date	26/11/2018
			Status	Planned	NDP Website	<u>NDP URL</u>
			Website	Project's URL	Currently PCI	Yes (6.23 (2020))
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third-P	Party Access Regime
Pre-Feasibility		04/2010			Considered TPA Regime	Regulated
Feasibility	11/2014	02/2015			Considered Tariff Regime	e Regulated
FEED	09/2020	12/2023			Applied for Exemption	No
Permitting	09/2020	07/2024			Exemption Granted	No
Supply Contracts		10/2025				
FID		09/2020			Exemption in entry direc	ction 0.00%
Construction	04/2022	10/2025			Exemption in exit direction	on 0.00%
Commissioning	2023	2025				
Grant Obtention						

Date

Current TYNDP : TYNDP 2020	- Annex A				Pag	ge 225 of 773
Pipelines and Compressor Stat	ions					
Variant	1 (Default)	Most likely scenario				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
R15/1 Pince - Lendava - Kidriče	VO		500	73	6	2025
	Total			73	6	
Pipelines and Compressor Stat	ions - Alternative Variant					
Va	riant2	Increased DN				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
R15/1 Pince - Lendava - Kidriče	VO		600	73	6	2026
	Total			73	6	
		Fulfilled Criteria				
Specific Criteria Fulfilled		through appropriate connections and dive ugh reducing emissions, supporting intern			· ·	

The project will enable a new interconnection between Slovenia and Hungary, enabling access to underground storages in Hungary for Slovenian gas suppliers, enabling access to LNG terminals in northern Adriatic and other gas sources for Hungarian gas suppliers, contributing Specific Criteria Fulfilled Comments to the diversification of import sources and routes and the security of supply for both countries. It will enable the connection of Hungarian and Slovenian gas market and improving of N-1 infrastructure standard for SI and HU.

#### **Expected Gas Sourcing**

#### Algeria, Caspian Region, Russia, LNG (HR,IT), UGS in Hungary

	Benefits
Main Driver	Market Demand
Main Driver Explanation	Also essential contribution to Security of supply.
Benefit Description	Cross-border transmission, enabling access to underground storages in Hungary for Slovenian gas suppliers, enabling access to LNG terminals in northern Adriatic and other gas sources for Hungarian gas suppliers, connection of Hungarian and Slovenian gas market and improving of N-1 infrastructure standard for SI and HU.

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	Barı	riers		
Barrier Type	Description			
Permit Granting	Long lasting and complicated procedures of Spatial planning (Na procedure of acquiring the Construction permit (long procedures	-	procedures, Environmental conse	ent) as well as the
	Intergovernmer	ntal Agreements		
Agreement	Agreement Description		Is Signed Ag	greement Signature Dat
Memorandum of Under	standing (MOU)		Yes	27/11/2009
	СВСА		Financial Assistance	
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CE	F and we have received decision
	not	Grants for studies		Ŷ
Submissin Date		Grants for studies amount		Mln EUR (
Decision Date		Grants for works		٢
Website		Grants for works amount		Mln EUR (
Countries Affected		Intention to apply for CEF		No decision yet tak
Countries Net Cost Bear	er	Other Financial Assistance		٢
Additional Comments		Comments		
		General Comments		

TDA NI 2C1

Non EID

# GCA 2015/08: Entry/Exit Murfeld Project Project Pipeline including CS

1KA-N-501	Project	Pipeline including CS	NON-FID
Update Date	01/10/2019		Advanced
Description	The Project enables incremental capacity at the IP Murfeld in both directions (AT->SI, Murfeld is achieved.	SI->AT). Moreover, physical RF capacity	y at the Entry Point
PRJ Code - PRJ Name	PRJ-G-066 - Bidirectional gas route Austria-Slovenia		

#### Capacity Increments Variant For Modelling Operator Point Year From Gas System To Gas System Capacity Gas Connect Austria GmbH 2023 AT SI 105.20 GWh/d Comment: conversion from Nm<sup>3</sup>/h to kwh/h with a GCV of 11.19 Murfeld (AT) / Ceršak (SI) Gas Connect Austria GmbH 2023 SI AT 166.50 GWh/d

Comment: conversion from Nm<sup>3</sup>/h to kwh/h with a GCV of 11.19

Sponsors	G	eneral Information	NDP and	PCI Information
	Promoter	GAS CONNECT AUSTRIA GmbH	Part of NDP	Yes (NDP 2019-2028)
	Operator	Gas Connect Austria GmbH	NDP Number	GCA 2015/08
	Host Country	Austria	NDP Release Date	11/02/2019
	Status	Planned	NDP Website	<u>NDP URL</u>
	Website	<u>Project's URL</u>	Currently PCI	Yes (6.26.1.4 (2020))
			Priority Corridor(s)	

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Schedule	Start Date	End Date	Third-Party Access Regim	e
Pre-Feasibility			Considered TPA Regime	Regulate
Feasibility			Considered Tariff Regime	Regulate
FEED			Applied for Exemption	N
Permitting	07/2020	12/2020	Exemption Granted	N
upply Contracts		03/2021		
ID		11/2020	Exemption in entry direction	0.009
Construction	05/2021	08/2023	Exemption in exit direction	0.009
Commissioning	2023	2023		
Grant Obtention Date				

Pipelines and Compressor Stations						
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Loop Murfeld - Cersak		Further scope of investment: - Extension of Weitendorf and Murfeld metering stations (Filter separator, metering routes, regulation, piping); -New Murfeld CS (gas driven)	500	2		0
Loop SOL pipeline		Further scope of investment: - Extension of Weitendorf and Murfeld metering stations (Filter separator, metering routes, regulation, piping); -New Murfeld CS (gas driven)	600	26		0
	Total			28		
		Fulfilled Criteria				
Specific Criteria Fulfilled	appropriate connections and	gh diversification of supply sources, supplying counterparts diversification of supply sources, supplying counterparts a ittent renewable generation and enhancing deployment o	nd routes, s	Sustainab		-
Specific Criteria Fulfilled Comments		the projected additional demand for capacity at the IP Mu supply, competition and market integration. In addition, the supply is the supply of	-			everse flow.

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		C.	
Asia Driver		efits	
Main Driver	Market Demand		
Main Driver Explanation	in		
Benefit Description			
	СВСА	Finar	ncial Assistance
<b>.</b>	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	Νο
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bea	arer	Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

## Upgrade of Murfeld/Ceršak interconnection (M1/3 Interconnection Ceršak)

TRA-N-389	Project		Pipeline including	g CS 🛛 🔊	lon-FID
Update Date	15/08/2019			А	dvanced
Description	Adjustment of operating parameters of the Austrian and Slovenian transmi bidirectional operation in the frame of the bidirectional gas route Austria - The project is a part of the PCI 6.26 Cluster Croatia - Slovenia - Austria at R	Slovenia - Croatia.	easing the transmissic	on capacity and en	abling
PRJ Code - PRJ Name	PRJ-G-066 - Bidirectional gas route Austria-Slovenia				
Capacity Increments Varia	nt For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
		2022	AT	SI	
Murfeld (AT) / Ceršak (SI)	Plinovodi d.o.o.	2023	AI	51	78.50 GWh/o

Sponsors		(	General Information	ND	P and PCI Information
Plinovodi	100%	Promoter	Plinovodi d.o.o.	Part of NDP	Yes (TYNDP for the period 2019-2028)
		Operator	Plinovodi d.o.o.	NDP Number	C4
		Host Country	Slovenia	NDP Release Date	26/11/2018
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website	Project's URL	Currently PCI	Yes (6.26.1.5 (2020))
				Priority Corridor(s)	

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Schedule	Start Date	End Date
Pre-Feasibility		01/2015
Feasibility	04/2015	05/2015
FEED	07/2020	07/2022
Permitting	07/2021	12/2022
Supply Contracts		12/2023
FID		09/2021
Construction	07/2022	12/2023
Commissioning	2023	2023
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Upgrade of Murfeld/Ceršak interconn	ection Pipeline length: 160m.	800	0		0
	Total		0		
	Fulfilled Criteria				
Shacitic ( ritaria filitiliad	ompetition, inter alia through diversification of supply sources, supplying counterpa ppropriate connections and diversification of supply sources, supplying counterpart		s, Security	y of Supply, inter alia	through
Specific Criteria Fulfilled Comments c	he Project enables incremental capacity at the IP Murfeld/Ceršak in both directions ommon benefits of removing bottlenecks, improving N-1 for the Slovenian TSO, imp s a base for future gas evacuation for Croatia through Slovenia to Austria.				

**Expected Gas Sourcing** 

Caspian Region, Russia, LNG (HR)

CDCA

-inoncial Accietance

		Benefits	
Main Driver	Market Demand		
Main Driver Explan	ation Also essential contribution to Security of supply.		
Benefit Description			

	CBCA		Financial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Submissin Date	not	Grants for studies amount	Mln EUR 0.0
		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer		Comments	
Additional Comments		General Comments	

ETR-N-396	Project	Energy Transition Related Project	Non-FID
Update Date	25/08/2020		Advanced
Description	The project is a significant step towards scaling up the electrolysis technolog conversion services (electricity à hydrogen) to market parties, contribution to particularly in the chemical industry and mobility sector.		

		G	eneral Information
		Promoter	Nouryon
		Operator	Gasunie Transport Services B.V.
		Host Country	Netherlands
		Status	Planned
		Website	
rt Date	End Date		
	12/2019		

Schedule	Start Date	End Date
Pre-Feasibility		12/2019
Feasibility	01/2020	12/2020
FEED	01/2021	12/2021
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2030	2030
Grant Obtention		
Date		

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## Hydrogen transmission backbone Netherlands

ETR-N-370	Project	Energy Transition Related Project	Non-FID
Update Date	15/08/2019		Advanced
Description	This project aims to create a nationwide hydrogen transmission grid. It co Ruhrgebied and Dutch underground gas storage. The hydrogen transmis Transmission capacity can be at least 10 GW (240 GWh/d) in 2030 for all	sion backbone will be build with existing as well as r	
PRJ Code - PRJ Name	PRJ-G-105 - Hydrogen network northwest Europe		

Sponsors			G	ieneral Information
			Promoter	N.V. Nederlandse Gasunie
			Operator	Gasunie Transport Services B.V.
			Host Country	Netherlands
			Status	Planned
			Website	
Schedule	Start Date	End Date		
Pre-Feasibility		09/2018		
Feasibility	07/2019	10/2019		
FEED	07/2019	07/2021		
Permitting	07/2019	07/2023		
Supply Contracts		01/2025		
FID		01/2025		
Construction	01/2025	12/2029		
Commissioning	2030	2030		
Grant Obtention				

Date

			North	n Sea Wind Power Hub		
ETR-N-322			Project		Energy Transition Related Project	Non-FID
Update Date				24/09/2020		Advanced
Description	at comp econom intercor	petitive prices around the beneficial and unnections between	und 2030 and facilitate n reliable offshore infrastru	rge scale, far offshore wind energy from neeting the Paris agreement. Therefore ucture, including possible conversion ir	e we are committed to explore and dev	elop regional socio-
PRJ Code - PRJ Name	PRJ-G-1	105 - Hydrogen ne	etwork northwest Europe	2		
c						
Sponsors			Promoter	General Information <i>N.V. Nederlandse Gasunie</i>		
			Operator	Gasunie Transport Services B.V.		
			Host Country	Netherlands		
			Status	Planned		
			Website	r annea		
Schedule	Start Date	End Date				
Pre-Feasibility		12/2020				
Feasibility		12/2021				
FEED		12/2026				
Permitting		12/2025				
Supply Contracts						
FID						
Construction		12/2030				
Commissioning	2032	2032				
Grant Obtention Date						

ETR-A-312	Project	Energy Transition Related Project	Non-FID
Update Date	14/08/2020		Advanced
	Project P2G Velke Kapusany aims to store renewable energy in form of the	hydrogen (H2) in the mixture with natural gas using	the new Naftas a
Description	storage. The unique structure as well as the location of the UGS with all the neighbouring countries. That's capacity will allow to install and use more re grid as well as will provide energy safety of supply. The project counts to in of the natural gas with the renewable hydrogen could be the possibility ho	planned interconnection will allow to store and dis enewable energy in region without any negative imp stall the electrolysis units to transform the electricit	tribute H2 for bact to the electrica y to gas (H2). Mixir

Point	Operator	Year	From Gas System	To Gas System	Capacity
UCS Volke Kanusany	NAFTA a.s.	2023	STcSK	SK	1.23 GWh/d
UGS Velke Kapusany		Con	nment: hydrogen to b	e injected into UGS	

Sponsors			General Information
NAFTA a.s.	100%	Promoter	NAFTA a.s. (joint stock company)
		Operator	NAFTA a.s.
		Host Country	Slovakia
		Status	Planned
		Website	Project's URL

Schedule	Start Date	End Date
Pre-Feasibility		08/2019
Feasibility	09/2019	01/2020
FEED	02/2020	04/2021
Permitting	11/2017	04/2021
Supply Contracts		09/2020
FID		01/2020
Construction	06/2021	06/2023
Commissioning	2023	2023
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
P2G Velke Kapusany	The projects expects to install P2G technology with power about 78 MW. Produced hydrogen will be injected into planned UGS Velke Kapusany at rate about 1,23 GWh/day. Compressor units as well as other infrastructure will be used from the UGS Velke Kapusany. The power of compressor unit should be around 8400 kW.	none	2023

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## Underground Gas Storage Velke Kapusany

UGS-A-356	Project	Storage Facility	Non-FID
Update Date	15/08/2019		Advanced
Description	<ul> <li>The Underground Gas Storage Velke Kapusany project aims to construct an under in close vicinity of Ukraine (1 km), Hungary (15 km) and Poland (70 km). The storage Kapusany, and at the center of the soon-to-be NSI East Gas corridor.</li> <li>The projected working gas volume of the UGS Velke Kapusany is 340 mcm with injustry a number of purposes, such as: <ul> <li>Providing security of supply to countries with insufficient storage capacities along countries as well as providing domestic security of supply</li> <li>Enhancing liquidity and facilitating gas trading at an emerging "gas hub" at the in Improving physical load factor of the existing and future gas transmission infrast</li> </ul> </li> </ul>	ge is located directly at the Ukraine-Slovaki jection and withdrawal rate set at 3.75 mcr g the north-south interconnector, mainly P ntersection of the north-south and east-we	a entry/exit point Velke n/d. This capacity will oland and the Balkan
PRJ Code - PRJ Name	PRJ-G-107 - UGS Velke Kapusany		

Capacity Increments \	/ariant For Modelling					
	Variant : Default	Default variant for use in modeling				
Point		Operator	Year	From Gas System	To Gas System	Capacity
		NAFTA a.s.	2023	STcSK	SK	37.05 GWh/c
		Comment: exit from UGS into TSC	D. Total Capa	city includes natural g	as in mixture with hydrogen	
UGS Velke Kapusany		NAFTA a.s.	2023	SK	STcSK	37.05 GWh/c
_		Comment: entry from TSO into UG	S. Total Capa	city includes natural g	as in mixture with hydrogen	
Capacity Increments \	/ariant(s) For Information Only					
	Variant : Hydrogen	Variant for P2G technology usage				
Point		Operator	Year	From Gas System	To Gas System	Capacity
		NAFTA a.s.	2023	STcSK	SK	1.23 GWh/d
			Comr	nent: hydrogen to be s	supplied to the TSO	
UGS Velke Kapusany		NAFTA a.s.	2023	SK	STcSK	1.23 GWh/d
			C	omment: hydrogen to	be injected in UGS	

urrent TYNDP : TYI	NDP 2020 - Ann	ex A				Page 242 of 773
Sponsors				General Information	NDF	P and PCI Information
NAFTA a.s.		100%	Promoter Operator Host Country Status Website	NAFTA a.s. (joint stock company) NAFTA a.s. Slovakia Planned <u>Project's URL</u>	Part of NDP NDP Number NDP Release Date NDP Website Currently PCI	Yes (Ten-Year Network Development Plan of the transmission system of the company Eustream) chapter 3.3 30/11/2017 <u>NDP URL</u> No
					Priority Corridor(s)	NSIE
Schedule	Start Date	End Date			Thirc	I-Party Access Regime
Pre-Feasibility		11/2017			Considered TPA Regir	ne Negotiated
Feasibility	04/2019	09/2019			Considered Tariff Reg	ime Negotiated
FEED	02/2020	04/2021			Applied for Exemption	No No
Permitting	11/2017	04/2021			Exemption Granted	Not Relevant
Supply Contracts		09/2020				
FID		01/2020			Exemption in entry dir	rection 0.00%
Construction	06/2021	06/2023			Exemption in exit dire	ction 0.00%
Commissioning Grant Obtention	2023	2023				

			Technical Information	ation (UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	(%)	Comments	Commisioning Year
Underground Gas Storage Velke Kapusany	Depleted Field	Yes	Commissioning	340	3.8	3.8	100	none	2023

Date

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled	Comments
	Expected Gas Sourcing
Caspian Region, Norway	, Russia, LNG (PL)
	Benefits
Main Driver	Others
Main Driver Explanation	UGS Velke Kapusany aims at reinforcing the security of gas supplies in the CEE region and enhancing the market integration of EU member states, namely Poland, Slovakia, Hungary and Ukraine as well. Along with the security of supply, the project will also help to promote sustainability by reducing CO2 emissions and usage of RES.
Benefit Description	Enabling reverse gas flow to Ukraine led to a sharp increase in trading at Slovak virtual trading point and Ukraine scored a number of new gas suppliers from Western Europe. As the PL-SK interconnector is moving ahead, we can expect a similar scenario with Poland – another country that is relentlessly pursuing its goal of source diversification. Higher number of trading counterparties is, however, only possible when there is enough flexibility from storage and if the storage is close to the point of destination. With the NSI East Gas corridor and Eastring in the works, this can become a competition on a higher scale as natural gas from the North Sea, Caspian, Central Asia, Iran, the Middle East or LNG from multiple locations will have doors open to the region that had long suffered from isolation and market stagnation.
	Barriers
Barrier Type	Description
Market	Lack of market support
Market	Lack of market maturity

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	СВСА	Financia	l Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	Yes, for studies and works
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer		Comments	
Additional Comments		General Comments	

## Connecting pipe to LNG terminal in Latvia

TRA-N-1181		Project			Pipeline including	g CS 🛛 🔊	Non-FID
Update Date		12/0	06/2020			Non	-Advanced
Description	Even having an underground reached only when necessary Skulte LNG terminal will be lo	direct source of gas supply-by gas storage, which has sufficie volumes of gas are injected in ocated only around 30 km from s of construction and operation re) has to be built.	nt capacity to supply entire the storage because receiv Inčukalns UGS storage, and	e countr ving gas d there	y for more than a yea by pipeline from Rus fore will not need any	ar, reliability of sup ssia in winter is provisionage capacitie	oply can be oblematic. es at site thus
PRJ Code - PRJ Name	PRJ-G-108 - LNG terminal in I	Latvia					
Capacity Increments Varia	ant For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Skulte (LV)		Conexus Baltic Grid		2021	LNG_Tk_LV	LV	170.00 GWh/c
Sponsors		General Inf	ormation		NDP and	PCI Information	
JSC "Conexus Baltic Grid"	100%	Promoter	JSC "Conexus Baltic Grid"	<b>D</b> (		) there is no oblig	
		Operator	Conexus Baltic Grid	Part o	of NDP level	for such a project	to be part of the NDF
		Host Country	Latvia	NDP	Number		
		Status	Planned		Release Date		
		Website	<u>Project's URL</u>		Website		
				Curre	ntly PCI		N
				Priori	ty Corridor(s)		BEMII

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Schedule	Start Date	End Date
Pre-Feasibility		05/2019
Feasibility	09/2019	12/2019
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2021	2021
Grant Obtention		
Date		

Technical Information (LNG)							
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
	No				No storage capacities needed	2021	60
Fulfilled Criteria							

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes

Specific Criteria Fulfilled Comments

**Expected Gas Sourcing** 

LNG ()

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	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	In order to secure gas supplies to Latvia and other Baltic countries Inčukalns UGS shall be filled with sufficient volume of gas. Since at precent it can be done mainly by pipeline from Russia and limited amounts from Klaipeda LNG terminal it is important to create additional source of supply which due to geografic location only can be LNG import terminal. In order to deliver gas from LNG terminal to Incukalns UGS the connecting pipeline has to be built.
Benefit Description	This is the most cost efficient solution for the regional LNG terminal and connecting pipeline
	Barriers
Barrier Type	Description
Political	There is no agreement of the Baltic Countries on the regional LNG terminal
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

	CBCA	Financial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	but we do plan to submit it	Grants for studies	No	
Submissin Date	01/03/2020	Grants for studies amount	Mln EUR 0.0	
Decision Date		Grants for works	Yes	
Website		Grants for works amount	Mln EUR 13.0	
Countries Affected		Intention to apply for CEF	Yes, for work only	
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		

				Skulte LNG					
LNG-N-912			Proje	ect			LNG Termina	I I	Non-FID
Update Date	1		and the second se	20/09/2019				Nor	n-Advanced
Description				ctive LNG FRU solution low price spread with			linked to Latvia Incuk	alns underground	l storage
PRJ Code - PRJ Name PRJ-G	-108 - LNG ter	minal in	Latvia						
Capacity Increments Variant For Mo	odelling								
Point			Operat	or		Year	From Gas System	To Gas System	Capacity
Skulte (LV)			AS Skul	te LNG Terminal		2023	LNG_Tk_LV	LV	150.00 GWh/d
Sponsors				General Informatic	'n		NDP and	PCI Information	
Full project			Promoter	AS S	kulte LNG Terminal	Part o	of NDP No (	((6) others - please	e comment below,
Nacionala gazes terminala biedriba (	(National Gas	56%	Operator	AS S	kulte LNG Terminal	NDP	Number		
Terminal Society)		2070	Host Country		Latvia	NDP	Release Date		
Arnfinn Unum		16%	Status		Planned	NDP	Website		
Peter Ragauss		16%	Website		Project's URL	Curre	ently PCI		No
		1070				Priori	ty Corridor(s)		BEMIF
SIA DIGAS		10%							

Current	<b>TYNDP</b>	: TYNDP	2020 -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		03/2015
Feasibility	03/2015	05/2016
FEED	09/2019	08/2020
Permitting	04/2020	06/2021
Supply Contracts		02/2023
FID		12/2020
Construction	07/2021	09/2023
Commissioning	2023	2023
Grant Obtention Date	30/03/2020	30/03/2020

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Third-Party Access Regime	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	No
Exemption in entry direction	100.00%
Exemption in exit direction	100.00%

Technical Information (LNG)							
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Lo Year	ad Factor (%)
FRU	Yes Pre feed	1.5 170,000	17.00	700,000	Reloading will be available	2023	30

Fulfil	led	Criteria
	i c a	Chicchica

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

Specific Criteria Fulfilled

Delays since last TYNDP				
Delay Since Last TYNDP				
Delay Explanation	The project was delayed due to lack of political support. Current government is very supportive and we have proceeded with EIA process. By political support we mean government instruction to Latvenergo (state own electricity company) to sign offtake agreement for 0.3bcm annual consumption on ToP basis. EIA process is the key issue now as the pipeline is crossing 156 land properties.			

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#### LNG ()

	Benefits					
Main Driver	Market Demand					
Main Driver Explanation	on Spot market, low cost LNG entry point, seasonal benefits with the	use of Incukalns UGS				
Benefit Description	tion Low cost LNG terminal with direct link to UGS - provides felixibility of supply.					
Barriers						
Barrier Type	Description					
Political	Project needs Latvenergo as the main offtaker for 0.3bcm. Annua	l ToP payment - 2.0mio EUR is very competetitive.				
Market	Lack of market maturity					
Regulatory	Lack of proper transposition of EU regulation					
	CBCA	Financial Assistance				

**Expected Gas Sourcing** 

	CDCA			
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	but we do plan to submit it	Grants for studies	No	
Submissin Date	01/09/2020	Grants for studies amount	Mln EUR 0.0	
Decision Date		Grants for works	No	
Website		Grants for works amount	Mln EUR 0.0	
Countries Affected	Estonia, Finland, Latvia, Lithuania	Intention to apply for CEF	Yes, for studies and works	
Countries Net Cost Bearer	Estonia;#Finland;#Latvia	Other Financial Assistance	No	
Additional Comments		Comments		

General Comments

1 1

Athos								
ETR-N-432	Project	Energy Transition Related Project	Non-FID					
Update Date	15/08/2019		Advanced					
Description	Development of an open CO2 backbone and offshore storage in the North sea channel region for large industry							
PRJ Code - PRJ Name	PRJ-G-115 - CCS/U Netherlands							

Sponsors			G	General Information	
	Į.		Promoter	N.V. Nederlandse Gasunie	
			Operator	Gasunie Transport Services B.V.	
			Host Country	Netherlands	
			Status	Planned	
			Website		
Schedule	Start Date	End Date			
Pre-Feasibility	7	12/2018			
Feasibility	01/2019	06/2019			
FEED	01/2021	04/2021			
Permitting	01/2020	04/2020			
Supply Contracts		01/2021			
FID		10/2023			
Construction	10/2023	01/2026			
Commissioning	2026	2026			
Grant Obtention Date					

			Porthos		
ETR-A-430		Project		Energy Transition Related Project	Non-FID
Update Date			15/08/2019		Advanced
Description	Development of an open CO2 backb	oone in the Port	of Rotterdam with a offshore (perma	anent) CO2 storage with total storage o	capacity of ca 37 MT
PRJ Code - PRJ Name	PRJ-G-115 - CCS/U Netherlands				
/					
Sponsors		Ger	neral Information		
	Prom	oter	N.V. Nederlandse Gasunie		
	Oper	ator	Gasunie Transport Services B.V.		
	Host	Country	Netherlands		
	Statu	S	Planned		
	Webs	site			

Schedule	Start Date	End Date
Pre-Feasibility		02/2018
Feasibility	04/2018	04/2018
FEED	04/2019	12/2020
Permitting	01/2020	07/2021
Supply Contracts		01/2020
FID		12/2020
Construction	10/2021	04/2023
Commissioning	2023	2023
Grant Obtention Date		

## Biomethane: Reverse flow projects

ETR-N-624	Project	Energy Transition Related Project	Non-FID
Update Date	15/08/2019		Advanced
Description	The scattered production of renewable gas will take an increasing part in the backhaul facilities will allow the excess energy to be absorbed when supply. In the framework of the scenario of the Energy Transition law for which remproducers connected to the distribution network would amount to about 1 backhaul installations and mutualised compressors –90% in D/T (Distribu-t Transmission infrastructures) – would be re-quired, i.e. a financial envelope These network adaptations will enable to maximize the volume of biomethag gas (10% of gas consumption in 2030)	exceeds local demand. ewable gas injections would reach 22 TWh by 202 ,300. Under these assumptions, it can be estimate ion/Transmission) and 10% in T/T (Regional Trans of €435 million by 2030.	28, the number of ed that around 37 emis-sion/Principal
PRJ Code - PRJ Name	PRJ-G-118 - Biomethane: reverse flow projets in France		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Forecast Draduction France CDT-	GRTgaz	2028	NPcFRg	FR	70.00 GWh/d
Forecast Production France GRTgaz			Comment: potential for 22 TWh in 2028		

Sponsors	General Inf	ormation
	Promoter	GRTgaz
	Operator	GRTgaz
	Host Country	France
	Status	Planned
	Website	Project's URL

- - I D (

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2028	2028
Grant Obtention		
Date		

West Grid Synergy							
ETR-F-587	Project	Energy Transition Related Project	FID				
Update Date	11/06/2020		Advanced				
Description	The biomethane production is significantly increasing since 2016. In Framin the distribution and transmission gas system. However, in many cases, integrate such production. Furthermore, decentralized production has signaintenance, coordination with the stakeholders). In order to adapt the has launched a demonstrator and a major industrial program. 3 gas utilities (GRTgaz, GRDF and SOREGIES) investigate this issue togeth Morbihan Energies) through an operational demonstrator named West C of territories with important biomethane production projects and very	, the injection capacity of the local distribution system gnificant impacts on the gas infrastructure operation ( ne distribution and transmission system to those struct ner with public actors (3 Departmental Offices for Ene	is not enough to monitoring, tural changes, GRTgaz ergy : SléML, SYDEV and				
PRJ Code - PRJ Name	PRJ-G-118 - Biomethane: reverse flow projets in France						

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Forecast Production France GRTgaz	GRTgaz	2019	NPcFRg	FR	0.40 GWh/d

Sponsors	General In	oformation
	Promoter	GRTgaz
	Operator	GRTgaz
	Host Country	France
	Status	In Progress
	Website	Project's URL

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Schedule	Start Date	End Date
Pre-Feasibility		01/2018
Feasibility	01/2018	01/2019
FEED	01/2019	01/2020
Permitting		
Supply Contracts		
FID		07/2018
Construction	08/2018	04/2019
Commissioning	2019	2019
Grant Obtention		
Date		

## Interconnection between the RO and the UA gas transmission systems

TRA-N-596		Project			Pipeline includ	ling CS	Non-FID
Update Date		19/09/	2019			A	dvanced
Description	The project entails the achieven with Ukraine.	ement of the gas transmission inf	rastructure in the directi	on Ghe	raesti - Siret in oro	der to create a new i	nterconnection
PRJ Code - PRJ Name	PRJ-G-121 - Romania - Ukrair	ne Gas Interconnection					
Capacity Increments Varian	t For Modelling						
Point		Operator		Year	From Gas Syste	m To Gas System	Capacity
Siret (RO) / Khotyn (UA)		SNTGN Transgaz S.A.		2025	RO	UAe	58.10 GWh/d
		SNTGN Transgaz S.A.		2025	UA	RO	87.10 GWh/d
Sponsors		General Inforr	nation		NDP a	and PCI Information	
SNTGN Transgaz SA	100%	Promoter Operator Host Country Status Website	SNTGN Transgaz SA SNTGN Transgaz S.A. Romania Planned	Part of NDP I NDP I NDP V Curre	of NDP N Number Release Date Website ntly PCI ty Corridor(s)	Yes (The Develop lational Gas Transmis	oment Plan of the ssion System 2018 - 2027, 7.9 14/12/2018 <u>NDP URI</u> No

urrent TYNDP : TYN	NDP 2020 - Ann	ex A
Schedule	Start Date	End Date
Pre-Feasibility		11/2018
Feasibility	01/2019	06/2020
FEED	07/2020	12/2021
Permitting	07/2020	12/2021
Supply Contracts		
FID		12/2021
Construction	01/2022	12/2024
Commissioning	2025	2025
Grant Obtention Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Gheraesti - Siret		700	146	10	2025
	Total		146	10	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Market Integration, inter alia through lifting the isolation of at least on interoperability and system flexibility, Security of Supply, inter alia thro supplying counterparts and routes				
Specific Criteria Fulfilled Specific Criteria Fulfilled Com	Market Integration, inter alia through lifting the isolation of at least on interoperability and system flexibility, Security of Supply, inter alia thro supplying counterparts and routes				

LNG (), Black Sea, EU Hubs

**Regulation SoS** 

Main Driver

Main Driver Explanation

Benefit Description

No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or notApplied for CEFSubmissin DateGrants for studies amountDecision DateGrants for worksWebsiteGrants for works amount	(3) No, we have not applied for CEF No Mln EUR 0.0 No
Submissin Date Decision Date Grants for works amount G	Mln EUR 0.0
Submissin Date       Grants for studies amount         Decision Date       Grants for works         Website       Grants for works amount	
Decision Date Website	No
Website Grants for works amount	110
Website	Mln EUR 0.0
Intention to apply for CEF	No decision yet taken
Countries Affected Other Financial Assistance	No
Countries Net Cost Bearer Comments	
Additional Comments General Comments	

Benefits

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		Interconnector Ro	omania - Ukraine				
TRA-N-502		Project		Pipelir	ne including		Non-FID
Update Date		15/0	6/2020			A	dvanced
Description	Building new pipeline betwee Ukraine and Romania.	n Ukraine and Romania in the r	egion of Khotyn in order t	to increase inter	rconnectivity,	market integratior	າ and SoS of
PRJ Code - PRJ Name	PRJ-G-121 - Romania - Ukraiı	ne Gas Interconnection					
Capacity Increments Variar	nt For Modelling						
Point		Operator		Year From	Gas System	To Gas System	Capacity
Siret (RO) / Khotyn (UA)		LLC Gas TSO of Ukrain	ne	2025	RO	UAe	58.10 GWh/d
		LLC Gas TSO of Ukrair	ne	2025	UA	RO	87.10 GWh/d
Sponsors		General Info	ormation		NDP and	PCI Information	
Romanian part		Promoter	LLC Gas TSO of Ukraine			4) there is no oblige	
SNTGN Transgaz SA	100%	Operator		Part of NDP	level	for such a project	to be part of the NDI
Ukrainian part		Host Country	Ukraine	NDP Numbe	r		NDI
JSC "Ukrtransgaz"	100%	Status	Planned	NDP Release			
		Website		NDP Website			
				Currently PCI			N
				Priority Corri			

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Schedule	Start Date	End Date
Pre-Feasibility		12/2019
Feasibility	01/2020	12/2020
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2025	2025
Grant Obtention		
Date		

Pipelines and Compre	ssor Stations				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Ukrainian part		700	30		2025
	Total		30		
	Expected Gas Sourcing				
LNG ()					
	Benefits				
Main Driver	Regulation SoS				
Main Driver Explanatio	n Ensuring additional SoS for the TSOs of Ukraine and Romania				
Benefit Description	- access to Black Sea offshore gas for UA and the EU markets; - access to PL LNG for Romania				
	Barriers				
Barrier Type	Description				
Regulatory	Lack of proper transposition of EU regulation				

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	CBCA	Financial A	ssistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culomiasia Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer		Comments	
Additional Comments		General Comments	

	Compressor Station Kipi Increment		
TRA-N-1129	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	This project represents the necessary increment for the Kipi compressor station (T gas of the Komotini-Thesprotia pipeline (TRA-N-014).	RA-N-128) to reach the capacity needed to	o ensure the supply with
PRJ Code - PRJ Name	PRJ-G-122 - Incremental capacity between Greece and Italy		

Capacity Increments Variant For Modellin	ng				
Point	Operator	Year	From Gas System	To Gas System	Capacity
Kipi (TR) / Kipi (GR)	DESFA S.A.	2024	TRi	IB-GRk	275.20 GWh/d

Sponsors			General Information	NDP and PCI Information		
DESFA S.A.	100%	Promoter	DESFA S.A.	Part of NDP	Yes (Development Plan NNGS 2017-	
		Operator	DESFA S.A.		2026)	
		Host Country		NDP Number	2.2.1.2	
		Status	Planned	NDP Release Date	21/02/2019	
		Website	Project's URL	NDP Website	<u>NDP URL</u>	
				Currently PCI	No	
				Priority Corridor(s)	SGC	

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Schedule	Start Date	End Date
Pre-Feasibility		07/2017
Feasibility	08/2017	07/2020
FEED	07/2020	03/2021
Permitting	12/2020	12/2021
Supply Contracts		01/2022
FID		01/2022
Construction	10/2022	12/2024
Commissioning	2024	2024
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
1				20	0
	Total			20	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplyi lifting the isolation of at least one Member State and reducing energy in of Supply, inter alia through appropriate connections and diversification inter alia through reducing emissions, supporting intermittent renewable	nfrastructure bottlenecks, in of supply sources, supplyi	nteropera ng counte	bility and system flex erparts and routes, So	ibility, Security ustainability,
Specific Criteria Fulfilled Comme	pate				

**Expected Gas Sourcing** 

Caspian Region, Russia

		Benefits
Main Driver	Market Demand	
Main Driver Explan	ation	
Benefit Descriptior		
		Barriers
Barrier Type	Description	
Market	Lack of market support	

CBCA		Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Cubrainain Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF	No decision yet taken	
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer		Comments		
Additional Comments		General Comments		

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Komotini-Thes	nratia n	inalina
Komouni-mes	prolia p	ibeine

TRA-N-14	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	High pressure pipeline from Komotini to Thesprotia area near Ionian coast along v	with 3 compressor stations and 1 operation	n & maintenance centre.
PRJ Code - PRJ Name	PRJ-G-122 - Incremental capacity between Greece and Italy		

Capacity Increments Variant For Modell	ling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
IP Greece - Italy	DESFA S.A.	2025	GR	IB-ITs	357.70 GWh/d

Sponsors			General	Information	NDP and PCI Information		
DESFA S.A.		100%	Promoter	DESFA S.A.	Part of NDP	Yes (Development Plan NNGS 2017-	
	7		Operator	DESFA S.A.		2026)	
			Host Country	Greece	NDP Number	2.2.1.5	
			Status	Planned	NDP Release Date	22/02/2019	
			Website	Project's URL	NDP Website	<u>NDP URL</u>	
				-	Currently PCI	No	
					Priority Corridor(s)	SGC	
Schedule	Start Date	End Date			Third-	Party Access Regime	
Pre-Feasibility		10/2018			Considered TPA Regime	e Regulated	
Feasibility	10/2018	03/2020			Considered Tariff Regim	ne Regulated	
FEED	06/2020	12/2020			Applied for Exemption	No	
Permitting	12/2020	12/2021			Exemption Granted	Not Relevant	
Supply Contracts		03/2022					
FID		01/2022			Exemption in entry dire	ction 0.00%	
Construction	05/2022	07/2025			Exemption in exit direct	ion 0.00%	
Commissioning	2025	2025					
Grant Obtention Date							

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year		
Komotini-Thesprotia		1,067	620	126	2025		
	Total		620	126			
	Fulfilled Criteria						
Specific Criteria Fulfille	Competition, inter alia through diversification of supply sources, supplying constraints of the solation of at least one Member State and reducing energy infrast of Supply, inter alia through appropriate connections and diversification of s inter alia through reducing emissions, supporting intermittent renewable get	structure bottlenecks, in supply sources, supply	nteropera ng count	ability and system flex erparts and routes, S	ibility, Security ustainability,		
Specific Criteria Fulfille	d Comments						
	Delays since last TYNDP						
Delay Since Last TYND							
Delay Explanation	Lack of interest from the market						
	Expected Gas Sourcing						
Caspian Region, Russia	, Other Central Asian, Middle Eastern and East-Mediterranean sources.						
	Benefits						
Main Driver	Market Demand						
Main Driver Explanatio							
Benefit Description	The project, together with Greece-Italy interconnector project TRA-N-1246 (sponsored by SNAM), will establish one more energy corridor between Easter gas sources and European consumers. The project aims at enhancing the diversification of supply routes at a European level and possibly, depending on the source of gas to be transmitted, the diversification of supply sources thus contributing to the improvement of the Security of Supply level in the region of South Eastern Europe.						
	Barriers						
	Description						
Barrier Type	Description Lack of market support						

rrent TYNDP : TYNDP 2020 - Annes					Page 270 of 773
	Intergovernmer	ntal Agreements			
Agreement	Agreement Description			Is Signed	Agreement Signature Date
ntergovernmental Agreement between Greece and Italy for the implementation he Interconnection Greece Italy.	I NO A GROOM ON WAS RATIFIED BY THE GROOP PAR	liament in 2006 (Law 3441/Gove	rnment Gazette	Yes	04/11/2005
	CBCA		Financial As	sistance	
Decision No, we	have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we hav	e applied for	CEF and we have received a decision
Submissin Date		Grants for studies			Ye.
Decision Date		Grants for studies amount			Mln EUR 0.
Website		Grants for works			No
Countries Affected		Grants for works amount			Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF			
Additional Comments		Other Financial Assistance			No
			Financial su	ipport for stu	idies was granted from Trans
		Comments			(TEN) in 2005 (Decision 2004 REN/05/TEN E – S07.51845).
		General Comments			

Greece -	Ital	y interconnection	
		,	

TRA-N-1246	Project	Pipeline including CS	Non-FID
Update Date	17/09/2020		Non-Advanced
Description	The project is the result of the incremental capacity cycle started in 2017 and consoftshore infrastructure.	sists of the interconnection from Greece to	Italy through an
PRJ Code - PRJ Name	PRJ-G-122 - Incremental capacity between Greece and Italy		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
IP Greece - Italy	Snam Rete Gas S.p.A.	2025	GR	IB-ITs	357.70 GWh/d

Sponsors	C	General Information	N	DP and PCI Information
	Promoter	Snam Rete Gas S.p.A.		Yes (Ten-year development plan of the
	Operator	Snam Rete Gas S.p.A.	Part of NDP	natural gas transmission network 2018-
	Host Country	Italy		2027)
	Status	Planned	NDP Number	not applicable
	Website	Project's URL	NDP Release Date	30/11/2018
		<u> </u>	NDP Website	NDP URL
			Currently PCI	No
			Priority Corridor(s)	

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Schedule	Start Date	End Date
Pre-Feasibility		07/2017
Feasibility	08/2017	07/2020
FEED	07/2020	02/2023
Permitting	07/2020	04/2024
Supply Contracts		04/2024
FID		07/2019
Construction	11/2022	07/2025
Commissioning	2025	2025
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
All the project	The specific information are still to be defined at this stage				2025
	Total				

Benefits				
Main Driver	Market Demand			
1ain Driver Explanatio	n			
enefit Description				

	СВСА	Finance	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

			Biomethane plan	ts development				
ETR-F-523			Project		En	ergy Transition R Project	elated	FID
Update Date			21/0	9/2020			A	dvanced
Description	The project consist in country	the rea	lization of >40 MW biomethane	e plants all over Italy and in	t is an ii	nportant contribution	to energy transiti	on of the
PRJ Code - PRJ Name	PRJ-G-127 - Italian bi	iometha	ne production					
Capacity Increments Variant	For Modelling							
Point			Operator		Year	From Gas System	To Gas System	Capacity
IT - Indigenous Production			Snam4Environment		2023	NPcIT	IT	0.70 GWh/d
Sponsors			General Info	ormation				
Snam4environment		100%	Promoter	Snam4environment	:			
			Operator	Snam4Environment	t			
			Host Country	Italy	/			
			Status	In Progress	5			
			Website	Project's URL	-			
Schedule Start	Date End Date							
Pre-Feasibility								
Feasibility								
FEED								
Permitting								
Supply Contracts								
FID	11/2018							
Construction								
	2023 2023							
Grant Obtention Date								

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
All the project	The project consists in the realization of 5 plants wi about 60 kScm/day	th a potential of	2022

1

## Project to facilitate biomethane production plants inteconnection

ETR-N-617	Project	Energy Transition Related Project	Non-FID
Update Date	17/09/2020		Advanced
Description	The project consists of developing all the facilities needed to guaran to the gas network	ee better conditions to make possible new biomethane	plants to be connected
PRJ Code - PRJ Name	PRJ-G-127 - Italian biomethane production		

Sponsors			General Information
Snam Rete Gas S.p.A.	100%	Promoter	Snam Rete Gas
		Operator	Snam Rete Gas S.p.A.
		Host Country	Italy
		Status	Planned
		Website	



# Measures for achieving hydrogen blending readiness of the transmission syst

ETR-N-916	Project	Energy Transition Related Project	Non-FID
Jpdate Date	11/06/2020		Advanced
Description	Achievement of hydrogen blending readiness in metering and leakage detecti transmission within the natural gas transmission system of Slovakia. It's focus against negative effects of hydrogen.		

Sponsors			General information
eustream, a.s.	100%	Promoter	eustream, a.s.
		Operator	eustream, a.s.
		Host Country	Slovakia
		Status	Planned
		Website	

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	01/2022	06/2022
Permitting	07/2022	03/2023
Supply Contracts		06/2023
FID		12/2022
Construction	07/2023	12/2024
Commissioning	2024	2024
Grant Obtention Date		
Date		

# Modification of NP23 MW turboset to a hydrogen-ready low-emissions at CS04

ETR-N-913	Project	Energy Transition Related Project	Non-FID
Update Date	11/06/2020		Advanced
Description	Modification of the NP23MW turbo-set to a hydrogen-ready low-emission transmission within the natural gas transmission system of Slovakia. The lo from the turbo-set in order to comply with stricter environmental standard	w-emissions system will cause a decrease of gaseou	, .
PRJ Code - PRJ Name	PRJ-G-132 - Eustream ETR projects		

Sponsors			General Information
eustream, a.s.	100%	Promoter	eustream, a.s.
		Operator	eustream, a.s.
		Host Country	Slovakia
		Status	Planned
		Website	

Schedule	Start Date	End Date
Pre-Feasibility		12/2019
Feasibility	01/2020	12/2020
FEED	05/2021	09/2021
Permitting	07/2021	03/2022
Supply Contracts		12/2022
FID		12/2021
Construction	01/2023	12/2023
Commissioning	2023	2023
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Basic Variant	Modification of compressor power output 23 MW		2023

Hydrogen import via Oude						
ETR-N-904	Project	Energy Transition Related Project	Non-FID			
Update Date	15/06/2020		Advanced			
Description	This project is the German part of a hydrogen interconnection point betwee development plan.	een Germany and the Netherlands as planned by the	e german national			
PRJ Code - PRJ Name	PRJ-G-139 - Hydrogen interconnection Netherland Germany					

Sponsors			C	General Information
			Promoter	Gasunie Deutschland Transport Services GmbH
			Operator	Gasunie Deutschland Transport Services GmbH
			Host Country	Germany
			Status	Planned
			Website	Project's URL
Schedule	Start Date	End Date		
Pre-Feasibility		07/2020		
Feasibility				
FEED				
Permitting				

Supply Contracts				
FID				
Construction				
Commissioning	2030	2030		
Grant Obtention Date				

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Hydrogen IP	Creating a hydrogen interconnection between the Netherland Germany at Oude Statenzijl (NL) / Bunde (DE) with an capac GWh/d.	ds and ity of 48	2030

	Hydrogen	export/import Oude State	enzijl	
ETR-N-956	Projec	t	Energy Transition Related Project	Non-FID
Update Date		14/07/2020		Advanced
Description	This project is the Dutch part of a hydrogen int	erconnection point between Ge	rmany and the Netherland.	
PRJ Code - PRJ Name	PRJ-G-139 - Hydrogen interconnection Netherla	and Germany		

Sponsors			(	General Information
			Promoter	Gasunie Transport Services B.V.
			Operator	Gasunie Transport Services B.V.
			Host Country	Netherlands
			Status	Planned
			Website	
Schedule	Start Date	End Date		
Pre-Feasibility		01/2020		
Feasibility	07/2020	07/2020		
FEED				
Permitting				
Supply Contracts				
FID				
Construction				
Commissioning	2030	2030		
Grant Obtention				
Date				

Current TYNDP : TYNDP 2020 - Annex A		Pag	e 285 of 773
	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Hydrogen IP	Creating a hydrogen interconnection between the Netherla Germany at Oude Statenzijl with a capacity of 48 GWh/d	ands and	2030

		IAEF - Vlora ccgt			
TRA-A-1303		Project	Pipeline including CS	Non-FID	
Update Date		15/08/2019		Advanced	
Description	<ul> <li>The TAP Albania Exit Point to Vlora CCGT transmission pipeline that will as per you</li> <li>1. Creates the Gas Market in Albania</li> <li>2. Enabler project</li> <li>3. Connect an Anchor client</li> <li>4. Support intermitent renewables</li> <li>5. Provide the basis for PiP2 and PiP3 wh</li> <li>6. The work has already started on the FE</li> <li>7. International tender launched. Results</li> </ul>	ich are of European Relevance ED	er the approved Gas Master Plan for Albania.	lt is a 40km	
PRJ Code - PRJ Name	-				

Capacity Increments Variant For Mod	elling				
Point	Operator		Year From Gas	System To Gas System	Capacity
Fier (AL) / (GR)	GR) Albgaz Sha		2020 AL/T/	AP AL	0.01 GWh/d
Sponsors	General Inform	mation		NDP and PCI Information	
	Promoter	Albgaz Sha	Part of NDP	Yes (Plani 10 Vjecar i Zh	
	Operator	Albgaz Sha			TYNDP))
	Host Country	Albania	NDP Number		PiP1
	Status	Planned	NDP Release Date		15/02/2018
	Website	Project's URL	NDP Website		NDP URL
			Currently PCI		No
			Priority Corridor(s	)	SGC

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Schedule	Start Date	End Date
Pre-Feasibility		02/2017
Feasibility	03/2017	02/2018
FEED	09/2018	09/2018
Permitting	11/2018	03/2019
Supply Contracts		06/2019
FID		09/2019
Construction	11/2019	11/2020
Commissioning	2020	2020
Grant Obtention Date	28/01/2016	28/01/2016

Pipelines and Compressor Stat					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissionin Year
IAEF - Vlora CCGT		400	40		2020
	Total		40		
	Fulfilled Criteria				
Specific Criteria Fulfilled Specific Criteria Fulfilled Comm	Competition, inter alia through diversification of supply sources, sup appropriate connections and diversification of supply sources, supply emissions, supporting intermittent renewable generation and enhan- nents	ying counterparts and routes	Sustainab		-
	appropriate connections and diversification of supply sources, supply emissions, supporting intermittent renewable generation and enhan	ying counterparts and routes	Sustainab		-
	appropriate connections and diversification of supply sources, supply emissions, supporting intermittent renewable generation and enhan- nents	ying counterparts and routes	Sustainab		-
Specific Criteria Fulfilled Comm	appropriate connections and diversification of supply sources, supply emissions, supporting intermittent renewable generation and enhan- nents	ying counterparts and routes	Sustainab		-

Caspian Region, Potential for new indigenous gas discoveries by Shell.

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	Ben	efits				
Main Driver	Market Demand					
Main Driver Explanation	The TAP Albania exit point to Vlora CCGT pipeline is the first Priority Project as per the approved Gas Master Plan for Albania. It is a 40km transmission pipeline that will as per your PID: 1. Create the Gas Market in Albania 2. Connect an Anchor client 3. Support intermitent renewables 4. Provide the basis for PiP2 and PiP3 which are of European Relevance. 5. The work has already started on the FEED					
Benefit Description	The TAP Albania exit point to Vlora CCGT pipeline is the first Priority Project as per the approved Gas Master Plan for Albania. It is a 40km transmission pipeline that will as per your PID: 1. Create the Gas Market in Albania 2. Connect an Anchor client 3. Support intermitent renewables 4. Provide the basis for PiP2 and PiP3 which are of European Relevance. 5. The work has already started on the FEED					
	Barı	riers				
Barrier Type	Description					
Regulatory	CCGT cooling developments.					
Financing	Availability of funds and associated conditions					
	CDCA	<b>F</b> <sup>1</sup>				
	CBCA		ncial Assistance			
Decision	No, we have submitted an investment request, but not	Applied for CEF	(3) No, we have not applied for CE			
Decision		Applied for CEF Grants for studies	(3) No, we have not applied for CE N			
	No, we have submitted an investment request, but not received a decision yet;#No, we have not submitted an	Applied for CEF Grants for studies Grants for studies amount	(3) No, we have not applied for CE N Mln EUR 0			
Decision Submissin Date Decision Date	No, we have submitted an investment request, but not received a decision yet;#No, we have not submitted an investment request yet, but we do plan to submit it	Applied for CEF Grants for studies Grants for studies amount Grants for works	(3) No, we have not applied for CE N Mln EUR 0 N			
Submissin Date	No, we have submitted an investment request, but not received a decision yet;#No, we have not submitted an investment request yet, but we do plan to submit it 21/03/2018	Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount	(3) No, we have not applied for CE N Mln EUR 0 N Mln EUR 0			
Submissin Date Decision Date	No, we have submitted an investment request, but not received a decision yet;#No, we have not submitted an investment request yet, but we do plan to submit it	Applied for CEF Grants for studies Grants for studies amount Grants for works	(3) No, we have not applied for Cl N Mln EUR C N			

		GCA	Mosonmagyaróvár				
TRA-N-423		Project			Pipeline including	g CS N	lon-FID
Update Date			22/11/2019			A	dvanced
Description	Current planning bas	ed on market indications. Po	tential connection to new gas sources	s from (	e.g. the Black Sea. Pro	ject will enable rev	verse flow.
PRJ Code - PRJ Name Capacity Increments	e - Variant For Modelling						
	Variant : Base	GCA 2015/	05 Entry Mosonmagyarovar				
Point		Operator		Year	From Gas System	To Gas System	Capacity
Mosonmagyarovar	1	Gas Conne	ct Austria GmbH	2024	HU	AT	153.10 GWh/
Capacity Increments	Variant(s) For Information Or	lly					
	Variant : Plus	GCA 2017/	01 Entry Mosonmagyaróvár Plus				
		Operator		Year	From Gas System	To Gas System	Capacity
Point		operator					
Point Mosonmagyarovar			ct Austria GmbH	2024	HU	AT	266.90 GWh/
Mosonmagyarovar		Gas Conne	ct Austria GmbH eneral Information	2024		AT PCI Information	266.90 GWh/
Mosonmagyarovar		Gas Conne			NDP and	PCI Information	266.90 GWh/ IDP 2019 - 2020
Mosonmagyarovar		Gas Conne G	eneral Information	Part o	NDP and	PCI Information	
Mosonmagyarovar		Gas Conne Gas Conne G Promoter	eneral Information GAS CONNECT AUSTRIA GmbH Gas Connect Austria GmbH	Part o NDP	NDP and	PCI Information	IDP 2019 - 202
Mosonmagyarovar		Gas Conne G Promoter Operator	eneral Information GAS CONNECT AUSTRIA GmbH Gas Connect Austria GmbH	Part o NDP NDP	NDP and of NDP Number Release Date	PCI Information	IDP 2019 - 202 GCA 2015/0 11/02/201
		Gas Conne G Promoter Operator Host Country	eneral Information GAS CONNECT AUSTRIA GmbH Gas Connect Austria GmbH Austria	Part o NDP NDP NDP	NDP and of NDP Number Release Date Website	PCI Information	IDP 2019 - 2020 GCA 2015/0

Grant Obtention

Date

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting	05/2021	10/2021
Supply Contracts		02/2022
FID		08/2021
Construction	02/2022	07/2024
Commissioning	2024	2024

Pipelines and Compressor Statio	ons					
Ba		GCA 2015/05 Entry Mosonmagyarovar				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
HAG MS, Baumgarten		No pipieline foressen Scope of investment: - Modification HAG MS: Filter separator, metering routes, regulation, piping - New HAG CS (electric driven) - Extension of the Baumgarten node				0
	Total					
Pipelines and Compressor Statio	ons - Alternative Variant					
Plu	us	GCA 2017/01 Entry Mosonmagyaróvár Plus				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Loop of the HAG pipeline		Further scope of investment: - New HAG CS (electric driven) - Extension of the Baumgarten node including construction of new metering routes	800	46		0
	Total			46		
		Fulfilled Criteria				
Specific Criteria Fulfilled	appropriate connections and emissions, supporting interm	gh diversification of supply sources, supplying counterpart diversification of supply sources, supplying counterparts a ittent renewable generation and enhancing deployment o	and routes, S	Sustainat		
Specific Criteria Fulfilled Commer	nts					
		Delays since last TYNDP				
Delay Since Last TYNDP						
Delay Explanation		AT has been submitted to the involved NRA's for joint appr g to ACER decision No 05/2019 of 09 April 2019 the Agenc zy.				

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	Benefits					
Main Driver	Market Demand					
Main Driver Explanation	Pipeline projects are planned according to market demand. Current planning is based on market indications.					
Benefit Description	Strenthening the establishment of a potential diversification of sources e.g. Black Sea Gas.					

	СВСА	Financial Assistance			
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we do not plan to submit it	Grants for studies	No		
Submissin Date		Grants for studies amount	Mln EUR 0.0		
Decision Date		Grants for works	No		
Website		Grants for works amount	Mln EUR 0.0		
Countries Affected		Intention to apply for CEF	No, we do not plan to apply		
Countries Net Cost Bearer		Other Financial Assistance	No		
Additional Comments		Comments			
		General Comments			

		P2G4A		
ETR-N-896	Project		Energy Transition Related Project	Non-FID
Update Date		11/08/2020		Advanced
Description PRJ Code - PRJ Name	The underlying (sandbox) project represents a Po electricty into hydrogen and to inject it into the e -			
Sponsors		General Information		
	Promoter	Gas Connect Austria	GmbH	
	Operator	Gas Connect Austria	GmbH	

Sponsors	Gei	neral Information
	Promoter	Gas Connect Austria GmbH
	Operator	Gas Connect Austria GmbH
	Host Country	Austria
	Status	Planned
	Website	

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning		
Grant Obtention		
Date		

Current	TYNDP	: TYNDP	2020 -	Annex A
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#### Technical Information (ETR)

Section/Phase Name

Main Technical Parameters

Due to the currently missing national and European regulatory framework, a provision of concrete and reliable technical parameters appears difficult . However, in order to comply with the technical criteria please find an indication below, which is based on following condition:

- The current assumption is based on the operation of the plant when excess electricity is gener-ated from wind energy.
- The excess electricity is generated by a wind turbine operation of 1800 hours per year.
- In this calculation, the plant is operated grid-supportive. Hence, synergies with PV plants and other excess energy producers are not factored in.

- Estimates are currently difficult because the legal framework (national and European) is still lacking.

According to the aforementioned conditions a potential hydrogen production in the amount of approx. 50.5 GWh/a has been calculated.

Technical Information Comment

Commissio ning Year

Phase

TRA-F-954	Project		Pipeline including	CS	FID
Update Date	18/11/201	)		Ac	lvanced
Description	The objective of the planning project TAG Reverse Flow is to create existing entry DZK capacity to entry FZK capacity at the IP Arnoldst Ceršak/Murfeld from the Slovenian to the Austrian gas transportati Italian and Slovenian gas system to the Austrian Virtual Trading Po supply routes and sources of supply. By enabling additional possib directions, this project is of strategic interest for the Austrian, Italia	ein/Tarvisio and additional on system. This project wo nt and to improve local sec lities for physical reverse fl	ly by allowing potentia uld grant access under curity of supply and liq ow to be offered in the	al entry FZK capaci r all conditions fro juidity through div e south-north and	ty at the IP m and betwee versification of
PRJ Code - PRJ Name	-				
Capacity Increments Vari Point	ant For Modelling Operator	Year	From Gas System	To Gas System	Capacity
	TAG GmbH	2020	IB-ITe	AT	0.00 GWh/d
Tarvisio (IT) / Arnoldsteir	will guarantee physica reverse flow along the T. kWh/h (1,000,000 Nm³/h, (0 the Austrian side and supp	tions and all necessary mod al transport of at least 17,90 AG-system up to the CS state PC); GCV 11,19 kWh/Nm³/k orts at the same time 6,714 at the Murfeld entry point	difications to the station 04,000 kWh/h (1,600,00 tion Baumgarten, i.e. at n (0°C)] at the Arnoldste ,000 kWh/h [600,000 N of the interconnected g able physical operation	n control systems, 20 Nm <sup>3</sup> /h, 0°C) in t least 11,190,000 ein entry point on Nm <sup>3</sup> /h (0°C); GCV pas transportation	

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Sponsors			C	General Information	N	DP and PCI Information
Trans Austria Gasle	itung GmbH	100%	Promoter Operator	Trans Austria Gasleitung GmbH TAG GmbH	Part of NDP	Yes (Coordinated Network Development Plan 2018-2027)
			Host Country	Austria	NDP Number	TAG 2016-01
			Status	Planned	NDP Release Date	19/01/2018
			Website		NDP Website	<u>NDP URL</u>
					Currently PCI	No
					Priority Corridor(s)	
Schedule	Start Date	End Date			Thi	rd-Party Access Regime
Pre-Feasibility					Considered TPA Reg	ime <i>Regulated</i>
Feasibility					Considered Tariff Re	gime Regulated
FEED					Applied for Exemption	on No
Permitting					Exemption Granted	Not Relevant
Supply Contracts						
FID		09/2016			Exemption in entry of	direction 0.00%
Construction					Exemption in exit di	rection 0.00%
Commissioning	2020	2020				
Grant Obtention Date						

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Eggendorf/Weitendorf	The project foresees the creation of connection lines between the outlet and the inlet in two compression stations enabling compressed reverse flow. No additional compressor power are foreseen; The length of the conjnection pipes are below 1 km.				2020

	Delays since	last TYNDP	
Delay Since Last TYNDP			
Delay Explanation	Internal re-planning due to external constraints		
	Ben	efits	
Main Driver	Others		
Main Driver Explanation	The planning project is triggered by an obligation arising out of t Network Development Plan 2016-2025, whereas a reverse flow of entry FZK capacity at the IP Murfeld. As a consequence, TAG Gmb Arnoldstein.	the TAG pipeline system shall be assessed	by also taking into consideration potential
Benefit Description	This project would grant access under all conditions from and bei improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south- market area and the NSI East region.	ion of supply routes and sources of supply.	. By enabling additional possibilities for
Benefit Description	improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south-	ion of supply routes and sources of supply. east directions, this project is of strategic in	. By enabling additional possibilities for
	improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south-market area and the NSI East region.  CBCA  No, we have not submitted an investment request yet,	ion of supply routes and sources of supply. east directions, this project is of strategic in	. By enabling additional possibilities for nterest for the Austrian, Italian and Slovenian ncial Assistance
	improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south-market area and the NSI East region.	ion of supply routes and sources of supply east directions, this project is of strategic in Finan	. By enabling additional possibilities for nterest for the Austrian, Italian and Slovenian
Decision	improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south-market area and the NSI East region.  CBCA  No, we have not submitted an investment request yet,	ion of supply routes and sources of supply east directions, this project is of strategic in Finan Applied for CEF	. By enabling additional possibilities for nterest for the Austrian, Italian and Slovenian ncial Assistance (3) No, we have not applied for CE
Decision ubmissin Date	improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south-market area and the NSI East region.  CBCA  No, we have not submitted an investment request yet,	ion of supply routes and sources of supply east directions, this project is of strategic in Finan Applied for CEF Grants for studies	. By enabling additional possibilities for nterest for the Austrian, Italian and Slovenian ncial Assistance (3) No, we have not applied for CE N Mln EUR 0
Decision Submissin Date Decision Date	improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south-market area and the NSI East region.  CBCA  No, we have not submitted an investment request yet,	ion of supply routes and sources of supply east directions, this project is of strategic in Finan Applied for CEF Grants for studies Grants for studies amount	. By enabling additional possibilities for nterest for the Austrian, Italian and Slovenian ncial Assistance (3) No, we have not applied for CE N Mln EUR 0 N
Decision Submissin Date Decision Date Vebsite	improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south-market area and the NSI East region.  CBCA  No, we have not submitted an investment request yet,	ion of supply routes and sources of supply. east directions, this project is of strategic in Finan Applied for CEF Grants for studies Grants for studies amount Grants for works	. By enabling additional possibilities for nterest for the Austrian, Italian and Slovenian ncial Assistance (3) No, we have not applied for CE (3) No, we have not applied for CE N MIn EUR 0 N MIn EUR 0
Benefit Description Decision Submissin Date Decision Date Vebsite Countries Affected Countries Net Cost Bear	improve local security of supply and liquidity through diversification physical reverse flow to be offered in the south-north and south-market area and the NSI East region.           CBCA           No, we have not submitted an investment request yet, and we do not plan to submit it	ion of supply routes and sources of supply east directions, this project is of strategic in Finan Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount	. By enabling additional possibilities for nterest for the Austrian, Italian and Slovenian ncial Assistance (3) No, we have not applied for CE

General Comments

# South Caucasus Pipeline Future Expansion (SCPFX)

TRA-N-1138	Project	Pipeline including CS	Non-FID
Update Date	18/10/2019		Advanced
Description	SCP started gas deliveries to Georgia and Turkey in 2006. Current capacity: 7. SCPX objective (being a part of the Southern Gas Corridor) to expand the exit (+16bcma (plateau annual average) delivered to the Georgia-Turkey border. parallel with the existing SCP. The total length of the line loop is approximate SCPX/TANAP interconnection at the Georgia-Turkey border). In Georgia two and CSG2). SCPFX is the next phase of further expansion, which will also be a to increase transported volumes of natural gas to EU markets up to additional	sting SCP gas transportation system capacity fror This is to be accomplished by building a new 48" ely 489km (424km in Azerbaijan, 63km in Georgia new intermediate compressor stations have beer part of SCP gas transportation system, and which	pipeline loop in and 2km for the constructed (CSG1
PRJ Code - PRJ Name	2		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Türkgözü	SOCAR Midstream Operations	2024	GE/SCP	TR/TNP	150.70 GWh/d

Sponsors		C	General Information	ND	P and PCI Information
BP	28%	Promoter	SOCAR Midstream Operations	Part of NDP	No ((5) the country is not EU member)
ТРАО	19%	i i officiel		NDP Number	
	1070	Operator	SOCAR Midstream Operations	NDP Release Date	
SOCAR affiliates	16%	Host Country	Azerbaijan	NDP Website	
Petronas	15%	Status	Planned	Currently PCI	Yes (7.1.1 (2020))
Lukoil	10%	Website	<u>Project's URL</u>	Priority Corridor(s)	
NICO	10%				

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Schedule	Start Date	End Date
Pre-Feasibility		01/2020
easibility	01/2020	07/2020
D	07/2020	09/2021
nitting	07/2020	09/2021
ly Contracts		09/2021
		12/2013
ction	03/2022	03/2024
issioning	2024	2024
Obtention	01/01/2022	01/01/2022

Pipelines and Compressor Stations						
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
South Caucasus Pipeline Future Expansion		SCPFX consists of three loops (29km, 43km and 21km) to be built in Georgia and one compressor station with 79.5 MW to be built in Azerbaijanian section.	1,219	93	80	2024
	Total			93	80	
		Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and rout Specific Criteria Fulfilled appropriate connections and diversification of supply sources, supplying counterparts and routes emissions, supporting intermittent renewable generation and enhancing deployment of renewab					-
Specific Criteria Fulfilled Comments Specific Criteria Fulfilled Comments Specific Criteria Fulfilled Comments			consortium	of share	holders, mostly Inter	national Oil

Delay Since Last TYNDP 6 months

	Expected Gas Sourcing		
Caspian Region			
	Benefits		
Main Driver	Market Demand		
Main Driver Explanation	The South Caucasus Pipeline (SCP) currently transports 7.46 bcma from the Shah Deni where it connects to the Turkish domestic gas network. The transportation of the addi being realized through an extension of the South Caucasus Pipeline (SCPX) in Azer-ba (TANAP) in Turkey. The further development of the Absheron Gas Field in the Caspian This expansion of the SCPX system is known under the name SCPFX (future expansion	tional gas quantities through Georgia and ijan and Georgia and through the new Tra will create the need to transport an additi	Azerbaijan is currently ns Anatolian Pipeline
Benefit Description			
	Barriers		
Barrier Type	Description		
Political	Each of customers for Azerbaijani gas has the demand of certain volumes. SCP System has enough gas for buyers along its route. It is the setting of the Southern Gas Corrido Majors buyers are far. Many local requirements and national interests should be consi pipeline route from other regions should also be taken into account. Therefore, the SC and other stakeholders, which will eventually safeguard investments and mitigate risks	or with new customers in Turkey, EU that r dered en route for SCP/Shah Deniz to be p GC value chain will need further political su	equires expansions of SCP profitable. Competitive
Others	Market uncertainty		
	Intergovernmental Agreements		
Agreement	Agreement Description	Is Signed	Agreement Signature Dat
Azerbaijan-Turkey Interg	governmental	No	12/03/2001
Agreement	rgovernmental		

Delays since last TYNDP

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	СВСА	Financ	ial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	but we do plan to submit it	Grants for studies	No
Submissin Date	22/01/2020	Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	Yes, for studies and works
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

	An	itwerp@C		
ETR-N-401	Project		Energy Transition Related Project	Non-FID
Update Date		24/06/2020		Advanced
Description	The climate target of getting Belgian CO2 emissions 350 infrastructure operator Fluxys believe strongly that carb change. They are therefore teaming up to take further p After a first opportunity analysis, both project partners h infrastructure connecting the Antwerp port region to ste being investigated. If the results of the feasibility study a	on capture, storage and practical steps that will h have decided to perform orage sites abroad and	d reuse by industry is an important weapon in th help give shape to the energy transition. m a feasibility study for open access CO2 transpo usage sites in the region. Both transport by pipe	e fight against clim
PRJ Code - PRJ Name	-			

Sponsors	Gene	eral Information
	Promoter	Fluxys and Antwerp Port Authority
	Operator	Fluxys and Port of Antwerp
	Host Country	Belgium
	Status	Planned
	Website	<u>Project's URL</u>

Schodulo Start Data End Data

Schedule	Start Date	End Date
Pre-Feasibility		03/2019
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2026	2026
Grant Obtention Date		
Date		

Update Date24/06/2020Capturing CO2 then reusing it or storing it underground is one way to meet climate targets. Under the wings of Smart De border consortium of companies comprising Fluxys is taking the first step towards using this approach to significantly re- Sea Port, the Belgian-Dutch area covering the ports of Ghent, Terneuzen & Vlissingen. Carbon Capture & Utilisation/Storage (CCUS) may make it possible to cut CO2 emissions in the North Sea Port area by 3 and the other members of the consortium have launched the Carbon Connect Delta project, which will initially set out to	
border consortium of companies comprising Fluxys is taking the first step towards using this approach to significantly re- Sea Port, the Belgian-Dutch area covering the ports of Ghent, Terneuzen & Vlissingen. Carbon Capture & Utilisation/Storage (CCUS) may make it possible to cut CO2 emissions in the North Sea Port area by 3	
CCUS. The consortium expects to complete its feasibility study in late 2020 with the final goal to capture up to 6.5 million tonne doing, Carbon Connect Delta would make a major contribution towards meeting the Paris climate targets and fulfilling th European Green Deal.	a year by 2030. In so

Sponsors		General Information
	Promoter	Smart Delta Resources
	Operator	to be decided
	Host Country	Belgium
	Status	In Progress
	Website	

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Schedule	Start Date	End Date
Pre-Feasibility		06/2020
Feasibility	06/2020	04/2021
FEED	04/2021	04/2022
Permitting	04/2021	04/2022
Supply Contracts		
FID		04/2022
Construction	04/2022	01/2025
Commissioning	2025	2025
Grant Obtention		
Date		

H2-Import Coalition						
ETR-N-938	Project	Energy Transition Related Project	Non-FID			
Update Date	24/06/2020		Advanced			
Description	<ul> <li>Hydrogen has an important role to play in the mix of solutions to achie</li> <li>Fluxys, Port of Antwerp, Port of Zeebrugge and WaterstofNet have laun</li> <li>chain, which will serve as a basis to coordinate concrete projects.</li> <li>Crucial to the viability of a hydrogen economy is the generation of suffi</li> <li>energy will likely not cover the entire energy demand in Belgium, and s</li> <li>economic solutions for the import, transport and storage of hydrogen r</li> <li>players and public stakeholders have brought their expertise together t</li> </ul>	iched a joint study to investigate the entire hydrogen in icient renewable electricity for the production of hydrog o part of the necessary renewable energy must be impo require specific expertise. This is why the abovemention	nport and transport gen. Wind and solar orted. Efficient and			
PRJ Code - PRJ Name	-					

Sponsors	General Information		
	Promoter	Deme, Engie, Exmar, Fluxys, Port of Antwerp, Port of Zeebrugge, WaterstofNet	
	Operator	to be decided	
	Host Country	Belgium	
	Status	In Progress	
	Website		

Schedule	Start Date	End Date
Pre-Feasibility		10/2020
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2020	2020
Grant Obtention		
Date		

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	HyOffW	ind Zeebrugge		
ETR-N-300	Project		Energy Transition Related Project	Non-FID
Update Date		08/09/2020		Advanced
Description	Eoly, part of Colruyt Group, Fluxys and Parkwind have se ambition is to build an industrial-scale power-to-gas ins stored in the existing natural gas infrastructure.			
	With the project, Eoly, Parkwind and Fluxys are taking a installation will be more closely examined. Unlike demo Belgium one of the first industrial-scale power-to-gas farelectricity into green hydrogen which can be marketed.	nstration projects elsewhere in Eu acilities. The aim is to build a powe	rope, Eoly, Parkwind and Fluxys env	visage to realise in
PRJ Code - PRJ Name	installation will be more closely examined. Unlike demo Belgium one of the first industrial-scale power-to-gas fa electricity into green hydrogen which can be marketed a -	nstration projects elsewhere in Eu acilities. The aim is to build a powe as carbon-free fuel or feedstock.	rope, Eoly, Parkwind and Fluxys env	visage to realise in
PRJ Code - PRJ Name	installation will be more closely examined. Unlike demo Belgium one of the first industrial-scale power-to-gas fa electricity into green hydrogen which can be marketed - Genera	nstration projects elsewhere in Eu acilities. The aim is to build a powe as carbon-free fuel or feedstock.	rope, Eoly, Parkwind and Fluxys env	visage to realise in
PRJ Code - PRJ Name	installation will be more closely examined. Unlike demo Belgium one of the first industrial-scale power-to-gas fa electricity into green hydrogen which can be marketed - Genera Promoter	nstration projects elsewhere in Eu acilities. The aim is to build a powe as carbon-free fuel or feedstock. I Information Fluxys, Eoly, Parkwind	rope, Eoly, Parkwind and Fluxys env	visage to realise in
PRJ Code - PRJ Name	installation will be more closely examined. Unlike demo Belgium one of the first industrial-scale power-to-gas fa electricity into green hydrogen which can be marketed a - Genera Promoter Operator	nstration projects elsewhere in Eu acilities. The aim is to build a powe as carbon-free fuel or feedstock. Il Information Fluxys, Eoly, Parkwind Eoly & Parkwind	rope, Eoly, Parkwind and Fluxys env	visage to realise in
PRJ Code - PRJ Name Sponsors	installation will be more closely examined. Unlike demo Belgium one of the first industrial-scale power-to-gas fa electricity into green hydrogen which can be marketed - Genera Promoter	nstration projects elsewhere in Eu acilities. The aim is to build a powe as carbon-free fuel or feedstock. I Information Fluxys, Eoly, Parkwind	rope, Eoly, Parkwind and Fluxys env	visage to realise in

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022
Grant Obtention		
Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Industrial-scale power-to-gas installation	Feasibility study for an industrial scale power-to-gas facility to convert a load of 25 MW electricity from wind into green hydrogen (0.4 GWh/d).		2022

		Interconnected	hydrogen network		
ETR-N-923		Project		Energy Transition Related Project	Non-FID
Update Date		24	4/06/2020		Advanced
Description	economy. Clean hydroger		and interconnections with adja	e aiming to support the development of acent countries are foreseen to ensure cost of the hydrogen chain.	
PRJ Code - PRJ Name	-				
Sponsors		General II	nformation		
	1	Promoter	Fluxys Belgium		
		Operator	Fluxys Belgium		
		Host Country	Belgium		
		Status	Planned		
		Website			
Schedule	Start Date End Date				
Pre-Feasibility					
Feasibility					
FEED					
Permitting					
Supply Contracts					
FID					
Construction					
Commissioning	2025 2025				
Grant Obtention Date					

TRA-F-500		Project		Pipeline inclu	uding CS	FID
Update Date		2	1/09/2020			Non-Advanced
Description	The timetable for reducing L- of 2012: the gradual reduction and end in 2030. The reason I expected as from 2020). Most conversion is done in France. zones in Belgium and in NW I	n of L-gas exports to Belgiu pehind this announcement i of the L-gas used in France For the Fluxys Belgium grid,	m (and therefore to France as s the forecasted decline of the e transits through Belgium me	L gas is also exported t L-gas Groningen gas f aning that L-gas transit	to France), will field (10%/year capacity need	begin in October 2024 production decline to be ensured until
PRJ Code - PRJ Name	-					
Sponsors		General	Information	ND	P and PCI Info	rmation
Fluxys Belgium	100%	Promoter Operator Host Country Status Website	Fluxys Belgium Fluxys Belgium Belgium In Progress <u>Project's URL</u>	Part of NDP NDP Number NDP Release Date NDP Website Currently PCI Priority Corridor(s)		ear Indicative Investment Fluxys Belgium & Fluxys LNG 2017-2026) L/H Conversion <u>NDP URL</u> Yes (5.21 (2020))

Current	TYNDP	: TYNDP	2020 -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2017
Feasibility	01/2018	06/2018
FEED	07/2018	10/2018
Permitting	03/2019	08/2019
Supply Contracts		02/2019
FID		12/2018
Construction	06/2019	05/2026
Commissioning	2026	2026
Grant Obtention		
Date		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	Security of supply Without this project, the energy demand cannot be covered as soon as 2021 The security of supply of the L-gas area will be brought up to the level already reached in North West Europe, and even be improved. Competition Diversity in the L-gas area will reach the same level as the North West region, instead of depending solely on Dutch supply and producers. Moreover, maintaining the use of natural gas for heating will be a lot cheaper than converting to electricity (the price of electricity for the households in 2020 could be up to 4 times more expensive than gas. Market integration The L-gas area will go from an energy island (a single supply, through a single route) to a deeply interconnected market. Sustainability It would avoid building new energy infrastructures, new transmission and distribution capacities and new heating appliances.

		Benefits	
Main Driver	Others		
Main Driver Explana	tion		
Benefit Description			

	CBCA		Financial Assistance
ecision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
ubmissin Date	11/10/2018	Grants for studies	No
ecision Date	04/10/2018	Grants for studies amount	Mln EUR 0.0
Vebsite	<u>CBCA URL</u>	Grants for works	Yes
ountries Affected		Grants for works amount	Mln EUR 0.0
ountries Net Cost Bearer		Intention to apply for CEF	No decision yet taken
dditional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

Description Description Substriation Substri	Project luxys, Indaver, INOVYN, Oiltanking, Port ble production of methanol, an essential ed energy and chemical cluster in the reg tion with sustainably produced hydroger 020 a formal consortium called 'Power to tion of a demonstration plant. In the sub Idelaan. The demonstration plant could p	24/06/2020 of Antwerp and the Flemish Environmen multi-purpose raw material used by indu jion. The aim of the consortium is to pro n. o Methanol Antwerp BV' was set up in or osequent phase, due to start in 2022, a de	ustry in the Port of Antwerp being the oduce sustainable methanol by reusing rder to take the necessary steps toward emonstration plant will be built on the	largest European captured CO2 in ds the expected INOVYN site along
Description ENGIE, Sustaina integrat combin In May constru the Sch an equi	ble production of methanol, an essential ed energy and chemical cluster in the reg tion with sustainably produced hydroger 020 a formal consortium called 'Power to tion of a demonstration plant. In the sub Idelaan. The demonstration plant could p	of Antwerp and the Flemish Environmen multi-purpose raw material used by indu jion. The aim of the consortium is to pro n. o Methanol Antwerp BV' was set up in ou psequent phase, due to start in 2022, a du	ustry in the Port of Antwerp being the oduce sustainable methanol by reusing rder to take the necessary steps toward emonstration plant will be built on the	a consortium for t largest European captured CO2 in ds the expected INOVYN site along
Description In May constru the Sch an equi	ble production of methanol, an essential ed energy and chemical cluster in the reg tion with sustainably produced hydroger 020 a formal consortium called 'Power to tion of a demonstration plant. In the sub Idelaan. The demonstration plant could p	multi-purpose raw material used by inde jion. The aim of the consortium is to pro n. o Methanol Antwerp BV' was set up in or osequent phase, due to start in 2022, a de	ustry in the Port of Antwerp being the oduce sustainable methanol by reusing rder to take the necessary steps toward emonstration plant will be built on the	largest European captured CO2 in ds the expected INOVYN site along
	alent volume of CO2 emissions can be a	voided.		ced methanol at lea
Sponsors		General Information		
	Promoter	Power to Methanol Antwerp BV		
	Operator	Power to Methanol Antwerp BV		
	Host Country	Belgium		
	Status	Planned		
	Website			

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2019	10/2019
FEED	04/2020	04/2021
Permitting	04/2020	04/2021
Supply Contracts		
FID		04/2021
Construction		
Commissioning	2022	2022
Grant Obtention		
Date		



-0

## Interconnection Bulgaria - Serbia

TRA-N-137	Project	Pipeline including CS	Non-FID
Update Date	10/01/2020		Advanced
Description	Interconnection Bulgaria-Serbia aims to connect the national gas transmissio construction of a gas pipeline from Novi Iskar to Kalotina with branch to Slive Dimitrovgrad on Serbian territory. The project on Bulgarian territory includes construction of GMS Kalotina at a joint site with a reverse pigging station of the The project is part of the Balkan Gas Hub concept. Along with the projects IG supply and competition by opening a new bidirecitonal supply route.	nitsa and Dragoman on Bulgarian territory and a the construction of 2 AGRS at Slivnitsa and Drag the gas pipeline.	gas pipeline Nis to oman and the
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Mod	delling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
		IBS Future Opera	itor	2022	BGn	RS	58.50 GWh/d
		commitment	ment: In 2018 the Republic of Bu regarding the construction of th ject promoter and operator of th	e interco	onnection and Bulgar	transgaz EAD was	
Interconnector BG RS		IBS Future Opera	itor	2022	RS	BGn	58.50 GWh/d
Sponsors		designated a pro	regarding the construction of th iect promoter and operator of th I Information		gas pipeline on the E	0	
Bulgarian section		Promoter	Bulgartransgaz EAD	Part o	f NDD	Yes (2019-2028 Te	en-year network
Bulgartransgaz EAD	100%	Operator	IBS Future Operator		INDP	developm	ent plan of BTG)
Serbian section		Host Country	Bulgaria	NDP N	lumber		Sectin 5.2 (5.2.3)
	100%	Status	Planned	NDP F	Release Date		23/04/2019
Serbijagas	100%	Website		NDP V	Vebsite		<u>NDP URL</u>
				Currer	ntly PCI		Yes (6.10 (2020))

Priority Corridor(s)

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Schedule	Start Date	End Date
Pre-Feasibility		02/2011
Feasibility	12/2011	12/2012
FEED		
Permitting		
Supply Contracts		03/2020
FID		
Construction	10/2020	04/2022
Commissioning	2022	2022
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Bulgarian territory	1.8 bcm/y maximum capacity	700	62		0
Serbian territory	1.8 bcm/y maximum capacity	700	108		0
	Total		170		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterpart appropriate connections and diversification of supply sources, supplying counterpart emissions, supporting intermittent renewable generation and enhancing deployment	rts and routes, S	Sustainab		-
Specific Criteria Fulfilled Comments	IBS will connect the networks of Bulgaria and Serbia. The interconnection is a prered market integration and promoting competition. All this includes utilization of both p Bulgaria and Serbia, the capacity of Chiren UGS, Banatski Dvor UGS and Banatski Ite supply routes and sources, increasing the transported volumes and liquidity in the r network in line with the EU regulations. Bulgaria will benefit from alternative natural have access to natural gas from South-east through Bulgarian interconnections with	potential and ex bej. IBS will cor regional gas ma l gas supplies th	kisting ga htribute s rket as w hrough Ba	s infrastructure on th ignificantly to SoS, di ell as integration with	ne territory of iversification of h the EU's gas

Current TYNDP : TYNDP 2020 - Annex A	
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19/01/2017

14/12/2012

Delay Since Last TYNDP

Delay Explanation

#### Changed project promoter. Delay in transferring of the project from the Ministry of Energy to Bulgartransgaz.

		Expected Gas Sourcing		
Norway, Russia, LNG ()				
		Benefits		
Main Driver	Others			
Main Driver Explanatio	n			
Benefit Description	The project should Serbia).	I enhance the system flexibility and contribute to the security of supply within the region (better	connection I	between Bulgaria and
		Intergovernmental Agreements		
Agreement		Agreement Description	Is Signed	Agreement Signature Dat
Joint statement by Bul	garia and Serbia	Joint statement signed in Brussels by Bulgaria and Serbia in 2010	Yes	05/03/2010
Joint Commitment on gas interconnector Bul		Bulgaria and Serbia declare their irrevocable commitment to build gas interconnection which shall be commissioned in May 2022 at the latest.	Yes	17/05/2018
Memorandum of Unde Bulgaria and Serbia	erstanding between	Memorandum of Understanding signed in Sofia between Bulgaria and Serbia in 2005	Yes	08/04/2005

Memorandum of Understanding signed in Brussels between Bulgaria and Serbia in 2012

Memorandum of Understanding between Bulgaria and Serbia Memorandum of Understanding between Bulgaria and Serbia

Memorandum of Understanding between Bulgaria and Serbia Yes

Yes

## Interconnector Greece-Bulgaria (IGB Project)

TRA-F-378	Project	Pipeline including CS	FID
Jpdate Date	25/11/2019		Advanced
Description	Construction of a bi-directional gas interconnector between the high pressure capacity of up to 3bcm/y, capable to be increased to up to 5 bcm/y with the in demonstrated.		

Point	Operator	Year	From Gas System	To Gas System	Capacity		
	ICGB a.d.	2020	2020 GR/TAP		90.00 GWh/d		
Komotini - TAP / IGB	ICGB a.d.	2025	GR/TAP	BG/IGB	60.00 GWh/d		
	Comment: GB will be technic		pacity upgrade from u /y with installation of				
	ICGB a.d.	2020	IB-GRk	BG/IGB	90.00 GWh/d		
Komotini (DESFA) - GR / IGB	ICGB a.d.	2025	IB-GRk	BG/IGB	60.00 GWh/d		
	Comment: IGB will be technically ready for a forward capacity upgrade from up to 3bcm/y to up to 5 bcm/y with installation of compressor station						
	ICGB a.d.	2020	BG/IGB	BGn	90.00 GWh/d		
Stara Zagora	ICGB a.d.	2025	BG/IGB	BGn	60.00 GWh/d		
	Comment: IGB will be technic		pacity upgrade from u				

to 5 bcm/y with installation of compressor station

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						1 490 522 61 1 1 5
Sponsors				General Information	NDP an	nd PCI Information
BEH EAD		50%	Promoter	ICGB a.d.	Part of NDP	Yes (Included in both the TYNDPs of
IGI Poseidon		50%	Operator	ICGB a.d.		Greece and Bulgaria)
		3070	Host Country	Bulgaria	NDP Number	not applicable
			Status	In Progress	NDP Release Date	
			Website	Project's URL	NDP Website	NDP URL
				-	Currently PCI	Yes (6.8.1 (2020))
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third-Pa	arty Access Regime
Pre-Feasibility		04/2009			Considered TPA Regime	Not Applicable
Feasibility	05/2009	07/2009			Considered Tariff Regime	Not Applicable
FEED	08/2020	08/2020			Applied for Exemption	Yes
Permitting	08/2020	08/2020			Exemption Granted	Yes
Supply Contracts		08/2019				
FID		12/2015			Exemption in entry direct	ion 50.00%
Construction	06/2019	12/2020			Exemption in exit directio	on 50.00%
Commissioning	2020	2025				

Grant Obtention Date

Pipelines and Compressor Stations		Diameter	Length	Compressor Power	Comissioning
Pipeline Section	Pipeline Comment	(mm)	(km)	(MW)	Year
		813	182		2020
IGB	IGB will be technically ready for a forward capacity upgrade from up to 3bcm/y to up to 5 bcm/y with installation of compressor station. Capacity upgrade will depend on market committments and development of neighbouring systems.	813	182	12	2025
	Total		364	12	
	Fulfilled Criteria				
Specific Criteria Fulfilled	appropriate connections and diversification of supply sources, supplying counterparts a	and routes,	Sustainab	oility, inter alia throug	h reducing
Specific Criteria Fulfilled Comments	emissions, supporting intermittent renewable generation and enhancing deployment of The project strategic objectives and role in Bulgaria and SE-CE markets are: • enhancem disruptions); by securing added volumes the project will increase significantly the entry the SEE region; • increase of transit capacity to the SEE countries taking advantage of o diversification of imported gas from Greece by additional supply sources from the Casp	nent of secu capacity of ther interco	rity of ga Bulgaria nnections	and diversify the ent s with Romania and S	ry routes to Serbia; and •
Specific Criteria Fulfilled Comments	The project strategic objectives and role in Bulgaria and SE-CE markets are: • enhancem disruptions); by securing added volumes the project will increase significantly the entry the SEE region; • increase of transit capacity to the SEE countries taking advantage of o diversification of imported gas from Greece by additional supply sources from the Casp terminals (existing and new in Greece and/or Turkey).	nent of secu capacity of ther interco	rity of ga Bulgaria nnections	and diversify the ent s with Romania and S	ry routes to Serbia; and •
	The project strategic objectives and role in Bulgaria and SE-CE markets are: • enhancem disruptions); by securing added volumes the project will increase significantly the entry the SEE region; • increase of transit capacity to the SEE countries taking advantage of o diversification of imported gas from Greece by additional supply sources from the Casp terminals (existing and new in Greece and/or Turkey).	nent of secu capacity of ther interco	rity of ga Bulgaria nnections	and diversify the ent s with Romania and S	ry routes to Serbia; and •
Specific Criteria Fulfilled Comments Delay Since Last TYNDP	The project strategic objectives and role in Bulgaria and SE-CE markets are: • enhancement disruptions); by securing added volumes the project will increase significantly the entry the SEE region; • increase of transit capacity to the SEE countries taking advantage of o diversification of imported gas from Greece by additional supply sources from the Casp terminals (existing and new in Greece and/or Turkey). Delays since last TYNDP 1 year	nent of secu capacity of ther interco pian region,	irity of ga Bulgaria nnections Middle E	and diversify the ent s with Romania and S ast, East Mediterrane	ry routes to Serbia; and • ean and LNG
	The project strategic objectives and role in Bulgaria and SE-CE markets are: • enhancem disruptions); by securing added volumes the project will increase significantly the entry the SEE region; • increase of transit capacity to the SEE countries taking advantage of o diversification of imported gas from Greece by additional supply sources from the Casp terminals (existing and new in Greece and/or Turkey).	nent of secu capacity of ther interco bian region, on on the p ecisions are	arties who taken, the	and diversify the ent s with Romania and S ast, East Mediterrane o can appeal against ere is just one appeal	the I outstanding
Delay Since Last TYNDP	The project strategic objectives and role in Bulgaria and SE-CE markets are: • enhancement disruptions); by securing added volumes the project will increase significantly the entry the SEE region; • increase of transit capacity to the SEE countries taking advantage of o diversification of imported gas from Greece by additional supply sources from the Casp terminals (existing and new in Greece and/or Turkey). Delays since last TYNDP 1 year Appeals against the tender procedures, during the opening phase there are no restriction procedures. At the current stage all the tender procedures are completed and award de against the award decision for the selected contractor under the tender for Line pipes m	nent of secu capacity of ther interco bian region, on on the p ecisions are	arties who taken, the	and diversify the ent s with Romania and S ast, East Mediterrane o can appeal against ere is just one appeal	ry routes to Serbia; and • ean and LNG the I outstanding
Delay Since Last TYNDP Delay Explanation	The project strategic objectives and role in Bulgaria and SE-CE markets are: • enhancement disruptions); by securing added volumes the project will increase significantly the entry the SEE region; • increase of transit capacity to the SEE countries taking advantage of o diversification of imported gas from Greece by additional supply sources from the Casp terminals (existing and new in Greece and/or Turkey). <b>Delays since last TYNDP</b> 1 year Appeals against the tender procedures, during the opening phase there are no restriction procedures. At the current stage all the tender procedures are completed and award de against the award decision for the selected contractor under the tender for Line pipes m of Supreme Administrative Court, ecpected by the end of July 2019.	nent of secu capacity of ther interco bian region, on on the p ecisions are	arties who taken, the	and diversify the ent s with Romania and S ast, East Mediterrane o can appeal against ere is just one appeal	ry routes to Serbia; and • ean and LNG the I outstanding

On 8th of August 2018 the National Regulators of Bulgaria and Greece issued a Joint Decision on the exemption of IGB from the requirements under article 36 of the European Gas Directive 2009/73/EC. The decision taken confirms the measures requested by the project company in the application filed, in particular: -Exemption from the rules for third-party access for the capacity booked under the Market test completed (almost 50% of the total capacity) -Exemption from regulated tariff for all the gas pipeline capacity for a period of 25 years. -Exemption from ownership unbundling for a period of 25 years.

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	Benefits		
Main Driver	Market Demand		
Main Driver Explanation	The committments from the market have been assessed by the signing of the Advance Reservation Capacity Agra allocation that was authorized by the National Regulatory Authorites in the conducted Market Test (see above in ARCAs signature will be followed by Gas Transportation Agreements execution within 2019 (as per provisions of	formation on I	
Benefit Description	The pipeline can interact with alternative supply sources - such as, Southern Corridor pipeline gas, LNG through outcomes confirm a committment at least from Caucasian area and LNG. Other sources that can be served by the TAP and other pipelines will start to operate.		
	Barriers		
Barrier Type	Description		
Regulatory	Regulatory approvals have to ensure more streamlined process for decisions on the IGB tariff and network code,	as well as the	licensing of the pipeline.
Permit Granting	Affected by delays in respect to the Greek section, however the permits are expected to be obtained by the end	of March 2019	
Political	Government support expected on issues such as streamlined permitting and regulatory decisions on commercial with the other TSOs.	development,	and the interconnection
Others	Public procurement procedures may be significantly delayed by appeals.		
Market	supply gas from IGB to the wider SEE region. The procedures for gaining access to transmission services in the ne should be more streamlined and transparent.	eighbouring sy	stems by shippers on IGB
Agreement	Intergovernmental Agreements Agreement Description	le Signod	Agreement Signature Dat
greement	The Intergovernmental Agreement that shall be signed between Greece and Bulgaria will establish the applicable Tax Framework for the Project.	No	16/01/2019

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	CBCA	10 C	Financial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEI
	and we do not plan to submit it	Grants for studies	N
ubmissin Date		Grants for studies amount	Mln EUR 0.
ecision Date		Grants for works	N
/ebsite		Grants for works amount	Mln EUR 0.
ountries Affected		Intention to apply for CEF	No, we do not plan to app
ountries Net Cost Bearer		Other Financial Assistance	Ye
dditional Comments		Comments	Financial assistance has been approved for the IGB in the amount of 45 mln. EUR under the European Energy Programme for Recovery (EEPR Additional EUR 39 mln grant financing is approved for the project under the Operational Program Innovation and Competitiveness, the funding is provided by the European Structural Investment Funds (ESIF) allocated to Bulgaria
		General Comments	The Bulgarian shareholder of the company is in the process of negotiation a EUR 110 mln loan financing with EIB , secured by a state guarantee in the same amount provided by Bulgaria. The loan agreement is expected to be concluded by the end of February 2019 and the loan will be trnasferred to the Project company upon the same condtions and parameters via an onlendign agreemen Further an Intergovernmental Agreement shall be signed between Greece and Bulgaria, which will establish the applicable Tax Framework for the Project All the listed measures were subject to a notification for of state id clearance. The decision of the EC was issued or 8th of Nov. 2018 and all the measures are considered compatible with the state aid rule.

## Modernization and rehabilitation of the Bulgarian GTS

TRA-F-298	Project	Pipeline including CS	FID
Update Date	21/11/2019		Advanced
Description	A multicomponent project which consists of different actions for rehabilitation infrastructure in Bulgaria and includes activities on: CSs modernization, inspect existing network and implementation of systems for optimization of the mana account the complex nature of the project, a 3 phases implementation is envis Phase 1: Unifies the actions undertaken in the period 2013-2015, planned to b Phase 2: Includes actions initiated in 2016. They represent logic continuation of Phase 1. Phase 3: Conditional infrastructure necessary after taking the FID for stage 2 of concept for the Balkan Gas Hub.	tions, repair and replacement of pipeline section gement process of the network technical condit saged: be finalized in a short term. of the overall realization of the project following	ns, expansion of the ion. Taking into the implementation of
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	IBS Future Operator	2024	BGn	RS	19.36 GWh/d
	Comment: Conditional	infrastructure necessa		D for stage 2 of the n Bulgaria – Serbia	
Interconnector BG RS	IBS Future Operator	2024	RS	BGn	19.36 GWh/d
	Comment: Conditional	infrastructure necessa		D for stage 2 of the n Bulgaria – Serbia	
Kulata (BG) / Sidirokastron (GR)	Bulgartransgaz EAD	2021	BGg/BGT	GR	13.78 GWh/d
Strandzha (BG) / Malkoclar (TR)	Bulgartransgaz EAD	2021	BGg/BGT	TRe	58.08 GWh/d

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Sponsors			Gene	ral Information	NDP and	PCI Information
Bulgartransgaz EAD	)	100%	Promoter	Bulgartransgaz EAD	Part of NDP	Yes (2019-2028 Ten-year network
			Operator	Bulgartransgaz EAD		development plan of BTG)
			Host Country	Bulgaria	NDP Number	Section 5.5
			Status	Planned	NDP Release Date	23/04/2019
			Website	<u>Project's URL</u>	NDP Website	NDP URL
					Currently PCI	Yes (6.8.2 (2020))
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third-Par	ty Access Regime
Pre-Feasibility		12/2016			Considered TPA Regime	Not Applicable
Feasibility	08/2008	08/2017			Considered Tariff Regime	Not Applicable
FEED	04/2013	02/2020			Applied for Exemption	Not Relevant
Permitting	09/2009	10/2020			Exemption Granted	Not Relevant
Supply Contracts		02/2021				
FID		01/2018			Exemption in entry direction	on 0.00%
Construction	09/2014	06/2022			Exemption in exit direction	0.00%
Commissioning	2021	2024				
Grant Obtention Date	27/04/2016	27/04/2016				

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Gorni Bogrov - Novi Iskar	Conditional infrastructure required after the final investment decision on the realization of IBS Stage 2 related to a capacity increase of 1.8 to 3.2 bcm/y.	700	19	20	0
Lozenets-Nedyalsko		1,000	20		0
PF Beglej - VA Dermantsi - VA Batu	Itsi - VA Kalugerovo	700	58		0
Valchi Dol - Preselka		700	23		0
	Total		120	20	
	Fulfilled Criteria				
	The modernization, rehabilitation and expansion of the existing gas transmission infra				
Specific Criteria Fulfilled Comments	transmission, enhance the efficiency, reliability and flexibility of the transmission system implementation of the activities planned will secure the technical capabilities for trans- territory of the country, coming in through the existing and new entry and exit points transmission depending on the market interest.	em and provid smission of a	le the rec dditional	quired capacities and natural gas quantities	pressures. Th s through the
Specific Criteria Fulfilled Comments	transmission, enhance the efficiency, reliability and flexibility of the transmission syste implementation of the activities planned will secure the technical capabilities for trans territory of the country, coming in through the existing and new entry and exit points	em and provid smission of a	le the rec dditional	quired capacities and natural gas quantities	pressures. The s through the
Specific Criteria Fulfilled Comments Delay Since Last TYNDP	transmission, enhance the efficiency, reliability and flexibility of the transmission syste implementation of the activities planned will secure the technical capabilities for trans territory of the country, coming in through the existing and new entry and exit points transmission depending on the market interest.	em and provid smission of a	le the rec dditional	quired capacities and natural gas quantities	pressures. The s through the
	transmission, enhance the efficiency, reliability and flexibility of the transmission syste implementation of the activities planned will secure the technical capabilities for trans territory of the country, coming in through the existing and new entry and exit points transmission depending on the market interest. Delays since last TYNDP	em and provid smission of a s, and opportu	le the rec dditional inities foi	quired capacities and natural gas quantities r diversification of the	pressures. Th s through the e directions of
Delay Since Last TYNDP	transmission, enhance the efficiency, reliability and flexibility of the transmission syste implementation of the activities planned will secure the technical capabilities for trans- territory of the country, coming in through the existing and new entry and exit points transmission depending on the market interest. Delays since last TYNDP yes Revision of the PCI Phase 2 implementation schedule to ensure consistency in the exec	em and provid smission of a s, and opportu	le the rec dditional inities foi	quired capacities and natural gas quantities r diversification of the	pressures. The s through the e directions of
Delay Since Last TYNDP Delay Explanation	transmission, enhance the efficiency, reliability and flexibility of the transmission syste implementation of the activities planned will secure the technical capabilities for trans territory of the country, coming in through the existing and new entry and exit points transmission depending on the market interest. Delays since last TYNDP yes Revision of the PCI Phase 2 implementation schedule to ensure consistency in the exe sections and compressor stations involved in this phase.	em and provid smission of a s, and opportu	le the rec dditional inities foi	quired capacities and natural gas quantities r diversification of the	pressures. The s through the e directions of

	Benefits
Main Driver	Others
Main Driver Explanation	With the implementation of the project improvement of the transmission system's efficiency, reliability and flexibility will be achieved, ensuring the necessary capacities and pressures including pressure recovery, bottlenecks removal, providing technical capabilities for transmission of additional natural gas quantities through the territory of the country, in relation to the planned new entry and exit points and opportunities for diversification of the transmission directions depending on the market interest and last but not least management optimization of the gas flows and setting the facilities meeting the ecologic requirements. Thus the technical and economic parameters of the existing gas infrastructure which has been in operation for forty years now will be improved.
Benefit Description	The project implementation will contribute to increasing the degree of market integration, creating a competitive gas market, encouraging the trade development, ensuring greater systems' flexibility and risk management optimization. It is directly related to the planned two new interconnections - with Greece (IGB), and Serbia (IBS) as well as to the IBR (operational); with the utilization of the UGS Chiren's capacity in relation to the project for its expansion; with the development of the significant cross-border gas projects in the region. Their efficient use is related to the technical capacities of the existing gas transmission infrastructure on the territory of Bulgaria to ensure sufficient capacity and adequate technical conditions for the transport of the planned new natural gas quantities. The project was supported at the highest political level, as well as at regional level – it is a priority CESEC project.

lied for CEF (1) Yes, we have applied for CEF and we have received a decision ts for studies Yes
nts for studies Yes
nts for studies amount Mln EUR 1.0
ts for works Yes
ts for works amount Mln EUR 27.2
ntion to apply for CEF No decision yet taken
er Financial Assistance Yes
Phase 1, consisting of activities undertaken in the period 2013-2015, was funded by Bulgartransgaz EAD. Stage 1
of the modernization of compressor stations (part of Phase 1) was included in the National Investment Plan (NIP) and, in this respect, in 2017 and 2018 Bulgartransgaz EAD received national funding for CS Petrich, CS Ihtiman, CS Strandzha and CS Lozenets to the total amount of EUR 41.9 million.
eral Comments
r r

## Necessary expansion of the Bulgarian gas transmission system

TRA-F-592	Project	Pipeline including CS	FID
Update Date	10/12/2019		Advanced
Description	The project aims at construction of the following necessary infrastructure for pipelines from the Turkish border to compressor station (CS) Strandza and fr Strandza; and two new CSs – Nova Provaida and Rasovo. The Balkan Gas Hub concept includes several key elements, which together of transmission system; modernization and expansion of the existing gas transmi interconnections with neighboring countries and new infrastructure for the h liquid natural gas exchange and the necessary amendments and additions in	com Provadia to the Serbian border; one new gas complete the project: new supply sources; utilizati nission system and expansion of UGS Chiren; con nub; creating the required trading and regulatory of	metering station (GMS) on of the existing gas struction of
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Kireevo (BG) / Zaychar (RS)	Bulgartransgaz EAD	2022	BGg/BGT	RS	395.20 GWh/d
Strandzha 2 (BG) / Malkoclar (TR)	Bulgartransgaz EAD	2019	TR/STR	BGg/BGT	577.10 GWh/d

Sponsors		General Information	NDP	and PCI Information
	Promoter	Bulgartransgaz EAD	Part of NDP	Yes (2019-2028 Ten-year network
	Operator	Bulgartransgaz EAD		development plan of BTG)
	Host Country	Bulgaria	NDP Number	Section 5.1. (5.1.1)
	Status			23/04/2019
	Website		NDP Website	<u>NDP URL</u>
			Currently PCI	No
			Priority Corridor(s)	NSIE

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	03/2018	11/2018
FEED	01/2018	03/2020
Permitting	01/2018	06/2020
Supply Contracts		10/2019
FID		01/2019
Construction	02/2019	06/2022
Commissioning	2019	2022
Grant Obtention Date	17/05/2017	17/05/2017

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
New gas pipeline from CS Provadia to the Bulgarian-Serbian border	New gas pipeline from CS Provadia to the Bulgarian- Serbian border, two new compressor stations	1,200	474	64	2022
New gas pipeline from the BG-TR border to GMS Strandzha	New gas pipeline from the BG-TR border to GMS Strandzha and new GMS Strandzha	1,200	11		2019
Т		485	64		
	Fulfilled Criteria				
Specific Criteria Fulfilled appropriate connections	and diversification of supply sources, supplying counterpart and diversification of supply sources, supplying counterpart termittent renewable generation and enhancing deployment	s and routes,	Sustainab		-
Specific Criteria Fulfilled Comments					
	Delays since last TYNDP				

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Algeria, Caspian Region, Libya, Russia, LNG (GR,TR), Black sea shelf gas; Domestic production;

	Benefits
Main Driver	Others
Main Driver Explanation	The concept of establishing a gas distribution centre (hub) on the territory of Bulgaria is based on the idea significant natural gas quantities from various sources to enter at certain real physical points for further transportation. Meanwhile, a gas trading venue - hub is also being organized, where each market participant will carry out natural gas transactions on a market-based principle. The idea of building a regional gas hub is based on the strategic geographical location of Bulgaria, the well-developed existing gas transmission and storage infrastructure and the interconnections projects with the neighbouring countries.
Benefit Description	The purpose of the Balkan Gas Hub project (PCI 6.25.4) is to connect the markets of the countries of the Balkan region, Central and Eastern Europe with the Western European markets by construction of the necessary gas infrastructure and providing commercial and regulatory environment, including a liquid gas exchange. Fully developed in pursuance of the policy and priorities for establishing an interconnected and integrated pan-European gas market of the EU, the gas hub concept is in line with the Southern Gas Corridor development projects and in full compliance with the plans for development of the European gas infrastructure aimed at improving security of supply and diversifying the natural gas supply sources. The project corresponds to the needs of the region, identified by the High Level Group on Energy Connectivity in Central and South-East Europe (CESEC), as well as the European Strategy for Energy Union.

	CBCA		Financial Assistance
	e have not submitted an investment request yet, have not yet decided whether we will submit or not	Applied for CEF	(1) Yes, we have applied for CEF and we have received of decision;#(2) Yes, we have applied for CEF, but we have not received a decision ye
missin Date		Grants for studies	Ye
ision Date		Grants for studies amount	Mln EUR 0.
osite		Grants for works	Λ
intries Affected		Grants for works amount	Mln EUR 0.
intries Net Cost Bearer		Intention to apply for CEF	No decision yet take
litional Comments		Other Financial Assistance	Ye
		Comments	2018 Bulgartransgaz EAD submitted a Request for suppor under the Structural Reform Support Programme of the European Union, with subject Balkan Gas Hub Trading Model. The Project Request aims to build on the results from the Feasibility Study by granting additional exper support under the Programme. The Project Reques amounts up to EUR 300 000 and is included in the Cooperation and Support Plan to 2019 Structural Reform Support Programme
		General Comments	Grant Agreement dated 17 May 2017 for implementing Balkan Gas Hub Feasibility Study amounting to EUR 920 500 In June 2019 Bulgartransgaz EAD applied for financing within the CEF Energy call 2019 with a project proposa for design of two compressor stations – (CS Rasovo and CS Nova Provadia). Design and construction of each o the two compressor stations is a separate stage of Phase

UGS Chiren Expansion							
UGS-A-138	Project	Storage Facility	Non-FID				
Update Date	22/09/2020		Advanced				
Description	Capacity increase of the only gas storage facility on the territory of Bulgaria pressures and higher daily average injection and withdrawal flowrates. The increase in the working gas volume up to 1 bcm and increase in the injection	project is part of the concept for Balkan Gas Hub a	-				
PRJ Code - PRJ Name	-						

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Bulgartransgaz EAD	2025	STcBGn	BGn	48.90 GWh/d
			Co	omment: Withdraw	/
	Bulgartransgaz EAD	2025	BGn	STcBGn	51.07 GWh/d
CMC Chiran			(	Comment: Injection	1
GMS Chiren	Bulgartransgaz EAD (SSO)	2025	STcBGn	BGn	48.90 GWh/d
			Co	omment: Withdraw	/
	Bulgartransgaz EAD (SSO)	2025	BGn	STcBGn	51.07 GWh/d
			(	Comment: Injectior	1

Sponsors		Gene	ral Information	NDP and PCI Information		
Bulgartransgaz EAD	100%	Promoter	Bulgartransgaz EAD	Part of NDP	Yes (2019-2028 Ten-year network	
		Operator	Bulgartransgaz EAD		development plan of BTG)	
		Host Country	Bulgaria	NDP Number	Section 5.3 (5.3.1)	
		Status	Planned		23/04/2019	
		Website	Project's URL	NDP Website	NDP URL	
			2	Currently PCI	Yes (6.20.2 (2020))	
				Priority Corridor(s)		

Current	: TYNDP	•	TYNDP	2020	-	Annex A	
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Schedule	Start Date	End Date
Pre-Feasibility		06/2011
Feasibility	03/2015	03/2020
FEED	02/2022	01/2024
Permitting	06/2021	02/2024
Supply Contracts		02/2022
FID		04/2021
Construction	07/2022	06/2025
Commissioning	2025	2025
Grant Obtention Date	23/10/2015	23/10/2015

			Technical Information	(UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor (%)	Comments	Commisioning Year
UGS Chiren	Depleted Field	Yes	UGS Chiren Expansion	450	4.6	4.8	75	The expected load factor for the first 3 years after the commissioning.	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes
Specific Criteria Fulfilled Comments	The project aims at creating conditions to guarantee the security of supplies for Bulgaria and the region, and to develop the UGS as commercial gas storage in an interconnected regional and European market. UGS Chiren expansion is part of the concept for development of the Balkan Gas Hub and a key instrument for the functioning of the gas market in Bulgaria and a prerequisite for market development, diversification and enhancement of the market integration, thus contributing to increased capacities for natural gas transmission of the intercons (IGB, IBR, IBS) and increased N-1 Indicator in terms of SoS. In the medium term UGS Chiren promises to become a commercial facility with a significant role in competition development in the regional gas market and in provision of additional flexibility of the gas transmission systems at regional level, with a significant contribution to congestion management and seasonal optimization of use of the gas transmission systems.
	Delays since last TYNDP
Delay Since Last TYNDP	yes
Delay Explanation	Commissioning: 2025 The delay of the overall PCI implementation is due to delay in the in the implementation of 3D seismic studies. The reasons are that within the tender procedure, the Selection Decision was appealed by one of the bidders and that hindered its successful completion. In the mean time new standard templates for tender procedures were approved by the Bulgarian Ministry of Finance, which from our side let to delay in the preparation of new tender documentation for the 3D seismic studies tendering, which afterwards needed to be relaunch. Another reason is delay in the process of granting access to the lands / propertis within the survey area, due to difficulties in obtaining Right of Way Agreements from the users of agricultural properties to perform seismic activities.
	Expected Gas Sourcing

Caspian Region, Russia, LNG (), Southern gas corridor gas sources; European gas hubs;

	Benefits	
Main Driver	Regulation SoS	
Main Driver Explanation	UGS Chiren has been the only gas storage on the territory of Bulgaria for 40 years covering seasonal fluctuations in natural gas consumption in the country by secur supplies and consumption and ensures emergency reserve. UGS Chiren is a crucia UGS Chiren promises to become a commercial facility with a significant role in con additional flexibility of the gas transmission systems at regional level, with a signif of use of the gas transmission systems.	ring the necessary flexibility caused by the differences between the al instrument ensuring the security of gas supplies. In the medium term mpetition development in the regional gas market and in provision of
Benefit Description	The project for its expansion aims on one hand at creating conditions to ensure seregion, and on the other - UGS Chiren development as commercial gas storage, a Europe-wide market. The project contributes for market development, diversificat increased capacities for natural gas transmission of the interconnectors (IGB, IBR, UGS Chiren will increase the N-1 Indicator. It also has considerable contribution to transmission systems.	is part of the Balkan Gas Hub concept, in an interconnected regional and tion and enhancement of the market integration, thus contributing to IBS). In terms of SoS and the related Competition the expansion of the
	Barriers	
Barrier Type	Description	
Barrier Type Permit Granting		the scope of the 3D seismic surveys: disagreement to sign Right of Way
	Description Obstacles related to granting access of the equipment to the lands falling within t	the scope of the 3D seismic surveys: disagreement to sign Right of Way Financial Assistance
Permit Granting	Description Obstacles related to granting access of the equipment to the lands falling within to Agreement on behalf of the landowners / users in the survey area.	Financial Assistance         (1) Yes, we have applied for CEF and we have received of the second se
Permit Granting Decision	Description         Obstacles related to granting access of the equipment to the lands falling within the Agreement on behalf of the landowners / users in the survey area.         CBCA         No, we have not submitted an investment request yet,	Financial Assistance         (1) Yes, we have applied for CEF and we have received a decision
Permit Granting Decision Submissin Date	Description         Obstacles related to granting access of the equipment to the lands falling within the Agreement on behalf of the landowners / users in the survey area.         CBCA       Applied for the land we do not plan to submit it         Applied for the land we do not plan to submit it	Financial Assistance         (1) Yes, we have applied for CEF and we have received a decisio
Permit Granting Decision Submissin Date Decision Date	Description         Obstacles related to granting access of the equipment to the lands falling within the Agreement on behalf of the landowners / users in the survey area.         CBCA       Applied for the land we do not plan to submit it         Applied for the land we do not plan to submit it	Financial Assistance         CEF       (1) Yes, we have applied for CEF and we have received a decision         tudies       Ye         tudies       Ye         MIn EUR 3.
Permit Granting Decision Submissin Date Decision Date Website	Description         Obstacles related to granting access of the equipment to the lands falling within the Agreement on behalf of the landowners / users in the survey area.         CBCA         No, we have not submitted an investment request yet, and we do not plan to submit it         Grants for steriors         Grants for steriors         Grants for steriors	Financial Assistance         CEF       (1) Yes, we have applied for CEF and we have received of decision         tudies       Ye         tudies       Ye         tudies amount       Mln EUR 3.         rorks       N
Permit Granting Decision Submissin Date Decision Date Website Countries Affected	Description         Obstacles related to granting access of the equipment to the lands falling within the Agreement on behalf of the landowners / users in the survey area.         CBCA         No, we have not submitted an investment request yet, and we do not plan to submit it         Grants for st         Grants for st         Grants for st         Grants for st         Grants for we	Financial Assistance         CEF       (1) Yes, we have applied for CEF and we have received a decision         tudies       Yes         tudies       Yes         tudies       Yes         tudies       Yes         tudies       Yes         tudies       Yes         tudies amount       Mln EUR 3         torks amount       Mln EUR 0
Permit Granting Decision Submissin Date Decision Date Website Countries Affected Countries Net Cost Bear	Description         Obstacles related to granting access of the equipment to the lands falling within the Agreement on behalf of the landowners / users in the survey area.         CBCA         No, we have not submitted an investment request yet, and we do not plan to submit it         Grants for st         Grants for st         Grants for we for we have not submit to the land of t	Financial Assistance         CEF       (1) Yes, we have applied for CEF and we have received decision         tudies       Yes         tudies amount       Mln EUR 3         vorks       Mln EUR 0         apply for CEF       Yes, for studies and work
	Description         Obstacles related to granting access of the equipment to the lands falling within the Agreement on behalf of the landowners / users in the survey area.         CBCA         No, we have not submitted an investment request yet, and we do not plan to submit it         Grants for st         Grants for st         Grants for we for we have not submit to the land of t	Financial Assistance         CEF       (1) Yes, we have applied for CEF and we have received a decision tudies         tudies       Yes       Yes         tudies amount       Mln EUR 3.       Mln EUR 3.         vorks       Mln EUR 0.       Ann EUR 0.         apply for CEF       Yes, for studies and work

Cyprus Gas2EU						
LNG-A-1146	Project		LNG Terminal	Non-FID		
Update Date		22/09/2020		Non-Advanced		
Description	CyprusGas2EU project (7.5 in the 3rd PCI list) is the only the Southern Gas Corridor.	candidate PCI project that	t ends the isolation of an EU Member St	ate and it is necessary for		
PRJ Code - PRJ Name	- //					

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Terminal 2 Vassiliko - Lemesos Port	Cygas	2022	LNG_Tk_CY	CY	40.00 GWh/d

Sponsors		General Information	N	DP and PCI Information
	Promoter	Ministry of Energy, Commerce and Industry (MECI)		No ((2) no NDP exists in the country)
	Operator	Natural Gas Public Company (DEFA LTD)	NDP Release Date	
	Host Country	Cyprus	NDP Website	
	Status	In Progress	Currently PCI	Yes (7.5 (2020))
	Website		Priority Corridor(s)	

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Schedule	Start Date	End Date
Pre-Feasibility		02/2017
Feasibility	04/2017	10/2017
FEED	05/2017	09/2018
Permitting	10/2019	01/2022
Supply Contracts		01/2022
FID		11/2019
Construction	11/2019	03/2022
Commissioning	2022	2022
Grant Obtention Date	25/01/2018	25/01/2018

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	The project will contribute to market integration as it will enable Cyprus to connect with the European gas network. It will improve Cyprus's security of energy supply and diversification of imported energy sources and fuels. The project will support objectives of sustainability as it will contribute to the reduction of GHG emissions in the island and prepare a low carbon economy.
	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	
	Expected Gas Sourcing
LNG (), Cyprus	

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	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	n
Benefit Description	End the isolation of a Member State and allow market integration with other Member States

	CBCA	Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	14/08/2017	Grants for studies	No	
Decision Date	13/10/2017	Grants for studies amount	Mln EUR 0.0	
Website	<u>CBCA URL</u>	Grants for works	Yes	
Countries Affected	Cyprus, Greece	Grants for works amount	Mln EUR 101.3	
Countries Net Cost Bearer	Cyprus	Intention to apply for CEF		
Additional Comments		Other Financial Assistance	Yes	
		Comments	From CEF Synergy Call 2017	
		General Comments	www.Cynergy-project.eu	

		Capacity4Gas – CZ/SK				
TRA-F-918		Project		Pipeline including	CS	FID
Update Date		18/12/2019			A	dvanced
Description	The project "Capacity4Gas – CZ/SK" is a the interconnection point Lanžhot betw of the Czech Republic (NET4GAS, s.r.o.) auction in March 2017.	een the Czech Republic and Slovakia.	The project is jo	intly coordinated by the	e transmission sy	stem operators
PRJ Code - PRJ Name	-					
Capacity Increments Varia	nt For Modelling					
Point		Operator	Year	From Gas System	To Gas System	Capacity

TOIL	Operator	rear	fioni das System	To dus System	capacity
	NET4GAS, s.r.o.	2019	CZ	SK	333.00 GWh/d
Lanžhot	Comment: The project is planned to be comple 1.1.2020. The incremental capacity repres	2	. ,	,	

Sponsors		General Information	ND	PP and PCI Information
Czech Republic	Promoter	NET4GAS, s.r.o.	Part of NDP	Yes (CZ NDP 2019-2028 (approved))
NET4GAS, s.r.o. 100	% Operator	NET4GAS, s.r.o.	NDP Number	TRA-F-918
Slovakia	Host Country	Czechia	NDP Release Date	31/10/2018
eustream, a.s. 100	% Status	In Progress	NDP Website	<u>NDP URL</u>
	Website	Project's URL	Currently PCI	No

Priority Corridor(s)

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Schedule	Start Date	End Date	Third-Party Access	Regime
e-Feasibility		04/2017	Considered TPA Regime	
easibility			Considered Tariff Regime	
ED	04/2017	06/2018	Applied for Exemption	
Permitting	03/2018	08/2018	Exemption Granted	
Supply Contracts		02/2019		
ID		03/2017	Exemption in entry direction	
Construction	05/2019	12/2019	Exemption in exit direction	
Commissioning	2019	2019		
Grant Obtention				
Date				

Z019 and put into operation on 1.1.2020.       Total       Expected Gas Sourcing	Pipelines and Compre	ssor Stations			
Capacity 4Gas - CZ/SK     2019 and put into operation on 1.1.2020.     2020       Total       Expected Gas Sourcing       Norway, Russia       Benefits       Main Driver     Market Demand       Main Driver Explanation     Result of the capacity auction.	Pipeline Section		Pipeline Comment	-	-
Expected Gas Sourcing Norway, Russia Main Driver Main Driver Explanation Result of the capacity auction.	Capacity4Gas - CZ/SK				2020
Norway, Russia       Benefits       Main Driver     Market Demand       Main Driver Explanation     Result of the capacity auction.		То	tal		
Benefits       Main Driver     Market Demand       Main Driver Explanation     Result of the capacity auction.			Expected Gas Sourcing		
Main Driver     Market Demand       Main Driver Explanation     Result of the capacity auction.	Norway, Russia				
Main Driver Explanation Result of the capacity auction.			Benefits		
	Main Driver	Market Demand			
Benefit Description	Main Driver Explanatio	n Result of the capacity auction.			
	Benefit Description				

CBCA	Finance	cial Assistance
No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
and we do not plan to submit it	Grants for studies	No
	Grants for studies amount	Mln EUR 0.0
	Grants for works	No
	Grants for works amount	Mln EUR 0.0
	Intention to apply for CEF	No, we do not plan to apply
	Other Financial Assistance	No
	Comments	
	General Comments	
		No, we have not submitted an investment request yet, and we do not plan to submit it Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF Other Financial Assistance Comments

			Greening of	Gas (GoG)				
ETR-N-306			Project		Energy	<ul> <li>Transition R</li> <li>Project</li> </ul>	elated N	Ion-FID
Update Date			25/09	9/2019			A	dvanced
Description	time in the Czech R methanization) with	Republic thar	ise a demonstration facility of hks to this unique technology. yser, that is, the production of or of the facility has not been o	The project consists of a co hydrogen by electrolysis fu	ombination	of biogas purifi	cation technology	(bio
PRJ Code - PRJ N	lame -							
Capacity Increme	ents Variant For Modelling							
	Variant : Variant A		Hydrogen production	1				
Point			Operator	N N	Year Fro	om Gas System	To Gas System	Capacity
GoG (CZ)			NET4GAS, s.r.o.	2	2023	NPcCZ	CZ	0.01 GWh/
				Comment: Hydroge	en productio	on (Exit from ETR	and Entry to TSO).	
Capacity Increme	ents Variant(s) For Information C	Only						
	Variant : Variant B		Biomethane production					
Point			Operator			om Gas System	To Gas System	Capacity
GoG (CZ)			NET4GAS, s.r.o.		2023	NPcCZ	CZ	0.01 GWh/
				Comment: Biomethar	ne productio	on (Exit from ETR	and Entry to TSO).	
Sponsors			General Info	ormation				
GasNet		50%	Promoter	NET4GAS, s.r.o.				
NET4GAS		50%	Operator	NET4GAS, s.r.o.				
			Host Country	Czechia				
			Status	Planned				
			Website					

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Schedule	Start Date	End Date
Pre-Feasibility		12/2018
Feasibility	01/2019	12/2019
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2023	2023
Grant Obtention		
Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Greening of Gas	Production of hydrogen (2400 m3 H2/d) or synthetic metan (1200 m3 CH4/d).	Building and connecting a facility to demonstrate the operational and industrial feasibility of such projects.	2023

## Compressor Station Krummhoern

TRA-F-1271	Project Pipeline including CS	FID
Update Date	18/11/2019	Advanced
Description	Extension of the existing OGE compressor station Krummhoern near Emden in Lower Saxony. The compressor station Krum compressed gas into the connected transmission pipelines.	mhoern is used to feed
PRJ Code - PRJ Name		

Sponsors				General Information	NDP and PCI Information	
CS Krummhoern ex	tension step 1		Promoter	Open Grid Europe GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018
Open Grid Europe G	GmbH	1009	% Operator	Open Grid Europe GmbH		(German NDP 2018))
CS Krummhoern ex	rtension step 2		Host Country	Germany	NDP Number	414-01 an 415-01
Open Grid Europe G		1009	Status	Planned	NDP Release Date	20/03/2019
Open dha Earope C		100	Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>
					Currently PCI	No
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third	Party Access Regime
Pre-Feasibility					Considered TPA Regim	e <i>Regulated</i>
Feasibility					Considered Tariff Regir	me Regulated
FEED	07/2016	06/2019			Applied for Exemption	No
Permitting	11/2016	06/2019			Exemption Granted	No
Supply Contracts						
FID		01/2017			Exemption in entry dire	ection 0.00%
Construction	06/2017	04/2021			Exemption in exit direc	tion 0.00%
Commissioning	2022	2022				
Grant Obtention Date						

Pipelines and Compressor Stations				
Pipeline Section	Pipeline Comment	Diameter Length Co (mm) (km)	ompressor Power (MW)	Comissioning Year
CS Krummhoern extension step 1			13	2019
CS Krummhoern extension step 2			13	2022
	Total		26	

Expected Gas Sourcing

### Norway

	Benefits
Main Driver	Market Demand
Main Driver Explanation	
Benefit Description	

	CBCA	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

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## Conversion of Natural-Gas-Pipelines to Hydrogen-Pipelines

ETR-N-945	Project	Energy Transition Related Project	Non-FID
Update Date	22/06/2020		Advanced
Description	Thyssengas plans to convert three Natural-Gas-Pipelines to Hydrogen North-Western Germany. The projects are descriped in the NDP (ID 7		a hydrogen grid in
PRJ Code - PRJ Name	-		

Sponsors		Genera	l Information
Umstellung Leitungssystem Elten-Sonsbeck (NETG)		Promoter	Thyssengas GmbH
Thyssengas GmbH	50%	Operator	Thyssengas GmbH
Umstellung Leitungssystem Kalle-Ochtrup		Host Country	Germany
Thyssengas GmbH	100%	Status	Planned
····;••••···;•••		Website	
Umstellung Leitungssystem Sonsbeck-Hambor	n		

Thyssengas GmbH

50%



	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Conversion until 2025	Pipeline Kalle - Ochtrup: length 49 km, diameter DN 600 Pipeline Elten - Sonsbeck: length 42 km, diameter DN 900		-
Conversion until 2030	Pipeline Sonsbeck - Hamborn: length 34 km, diameter DN 500	)	

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## Coversion of Natural Gas pipelines to Hydrogen

ETR-N-903	Project	Energy Transition Related Project	Non-FID
Update Date	24/06/2020		Advanced
Description	This project represents the conversion of natural gas pipelines of Gasunie De 2020. In the German NDP the TSO developed a hydrogen grid which connects the		5
PRJ Code - PRJ Name	- //		

Sponsors	General Information		
	Promoter	Gasunie Deutschland Transport Services GmbH	
	Operator	Gasunie Deutschland Transport Services GmbH	
	Host Country	Germany	
	Status	Planned	
	Website	<u>Project's URL</u>	



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Technical Information (ETR)						
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year			
NEP ID: 704_01	Conversion Mitte Weser - Kolshorn 28 km; D700; MOP 70 bar	Total length 93 km (30% GUD Share)	2030			
NEP ID: 714_01	Conversion Elbe Süd - Heidenau 41 km; D600; MOP 70 bar		2025			
NEP ID: 715_01	Conversion Eckel - Achim 73 km; D450; MOP 70 bar		2025			
NEP ID: 716_01	Conversion Oude Statenzijl - Ganderkersee 89 km; D600; MOP 70 bar		2030			
NEP ID: 717_01	Conversion Ganderkersee - Achim 41 km; D600; MOP 70 bar		2025			
NEP ID: 718_01	Conversion Ganderkersee - Bremen 17 km; D400; MOP 70 bar		2025			
NEP ID: 719_01	Conversion Folmhusen - Nuettermoor 18 km; D400; MOP 70 bar		2030			
NEP ID: 720_01	Conversion Barßel - Rheine 108 km; D1000; MOP 38 bar		2030			
NEP ID: 721_01	Conversion Ganderkersee - Drohne 80 km; D600; MOP 70 bar		2030			

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# CS Elten

TRA-F-1254	Project Pipeline including CS	FID
Update Date	18/11/2019	Non-Advanced
Description	Compressor station project to support the changeover from low-calorific gas to high-calorific gas in Germany.	
PRJ Code - PRJ Name	-	

Sponsors				General Information	NDP	and PCI Information
Open Grid Europe G	imbH		Promoter	Open Grid Europe GmbH and Thyssengas GmbH	Part of NDP	Yes (German NDP 2018 - 2028 (NEP 2018 -2028))
Thyssengas GmbH			50% Operator	Thyssengas GmbH	NDP Number	422/01
			Host Cour	try Germany	NDP Release Date	20/03/2019
			Status	Planned	NDP Website	<u>NDP URL</u>
			Website	Project's URL	Currently PCI	No
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third	-Party Access Regime
Pre-Feasibility					Considered TPA Regim	ne Regulated
Feasibility	10/2018	06/2019			Considered Tariff Regir	me Regulated
FEED	07/2017	01/2019			Applied for Exemption	No
Permitting	10/2019	12/2020			Exemption Granted	No
Supply Contracts						
FID		03/2016			Exemption in entry dire	ection 0.00%
Construction	06/2022	11/2022			Exemption in exit direct	tion 0.00%
Commissioning	2022	2022				
Grant Obtention Date						

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Elten				11	2022
	Total			11	

### **Expected Gas Sourcing**

### Norway, LNG (BE,FR,NL,UK)

Benefits					
Main Driver	Market Demand				
Main Driver Explanatio	n Changeover of regions currently supplied by low-calorific gas to high-calorific gas due to declining availability of low-calorific gas.				
Benefit Description	Availability of low-calorific gas is declining in Germany. The regions currently supplied by low-calorific gas will need to switch supply from low-calorific gas to high-calorific gas. The project is needed to transport high-calorific gas to the regions currently supplied by low-calorific gas.				

	CBCA	Finan	icial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

CS Rimpar								
TRA-F-755	Project	Pipeline including CS	FID					
Update Date	18/11/2019		Non-Advanced					
Description	New construction of a compressor station at the existing site of Rimpar on the MEGAL gas transport system allowing the neccessary H-gas flows to the North of Germany replacing disappearing L-gas quantities. This project has no impact of increment capacity.							
PRJ Code - PRJ Name	-							

Sponsors				General Information	NDP and	PCI Information
GRTgaz Deutschland	d GmbH	55	% Promoter	GRTgaz Deutschland GmbH	Part of NDP Ye	es (Netzentwicklungsplan Gas 2018)
Open Grid Europe G	SmbH	44	% Operator	GRTgaz Deutschland GmbH und	NDP Number	312-02
			·	Open Grid Europe GmbH	NDP Release Date	20/03/2019
			Host Country	Germany	NDP Website	<u>NDP URL</u>
			Status	Planned	Currently PCI	No
			Website		Priority Corridor(s)	
Schedule	Start Date	End Date			Third-Par	ty Access Regime
Pre-Feasibility					Considered TPA Regime	Regulated
Feasibility					Considered Tariff Regime	Regulated
FEED					Applied for Exemption	Not Relevant
Permitting	01/2019	12/2019			Exemption Granted	Not Relevant
Supply Contracts		04/2020				
FID		07/2018			Exemption in entry direction	on 0.00%
Construction	01/2020	12/2023			Exemption in exit direction	0.00%
Commissioning	2023	2023				
Grant Obtention Date						

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Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Rimpar / MEGAL		0	0	30	2023
	Total		0	30	

	Expected Gas Sourcing
Russia	

	Benefits
Main Driver	Others
Main Driver Explanation	on Replacement of disappearing L-gas quantities by H-gas
Benefit Description	

	CBCA	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

## CS Wertingen

TRA-F-340	Project		Pipeline including CS	FID
Update Date		18/11/2019		Advanced
Description	VDS Wertingen is a new compressor station project in redundancy unit.	ncluding 3 compressor units	s of 11 MW each. One of the compressor uni	ts will serve as a
PRJ Code - PRJ Name				

Sponsors			Gener	al Information	NDP a	and PCI Information
bayernets GmbH	N.	55%	Promoter	bayernets GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018-
Open Grid Europe G	imbH	45%	Operator	bayernets GmbH		2028)
	-		Host Country	Germany	NDP Number	036-04
			Status	In Progress	NDP Release Date	01/04/2018
			Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>
					Currently PCI	No
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third-F	Party Access Regime
Pre-Feasibility		06/2019			Considered TPA Regime	e Regulated
Feasibility	07/2015	11/2015			Considered Tariff Regim	ne Regulated
FEED	03/2016	03/2016			Applied for Exemption	No
Permitting	04/2016	04/2017			Exemption Granted	Not Relevant
Supply Contracts		08/2017				
FID		05/2016			Exemption in entry direc	ction 0.00%
Construction	09/2017	12/2019			Exemption in exit directi	ion 0.00%
Commissioning	2019	2019				
Grant Obtention Date						

	Ben	efits	
Main Driver	Others		
Main Driver Explanatior	The project results from the modelling of National Development Germany.	Plan (so called "Netzentwicklungsplan Gas'	') 2012, 2013, 2014, 2015, 2016 and 2018 in
Benefit Description			
	CBCA	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Nebsite		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bea	rer	Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

	Element Ein	S	
ETR-N-452	Project	Energy Transition Related Project	Non-FID
Update Date	27/09/201	9	Advanced
Description	The grid operators TenneT, Gasunie Deutschland and Thyssengas H advancing the energy transition. The three grid operators are plane 100 megawatts, it will be one of the largest of its kind in Germany. The "Element Eins" pilot project will give the companies first experi plant will be connected to the grid gradually. By converting green of The partners ultimately hope to achieve a comprehensive coupling green electricity will be transported from the North Sea to the Ruh sector.	ning to build a power-to-gas pilot plant in Lower Saxony; iences with power-to-gas facilities on an industrial scale. S electricity into gas, it will develop new storage capacities f g of the energy, transport and industrial sectors. Gas that h	at an electrical input of starting in 2023, the pile for renewable energies. has been produced fron
PRJ Code - PRJ Name			

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Thyssengas GmbH	2022	NPcDEn	DEn	0.72 GWh/d
	Thyssengas GmbH	2024	NPcDEn	DEn	1.08 GWh/d
Ostfriesland (Element Eins)			Comment: Sto	art of conversion to CH4	
	Thyssengas GmbH	2028	NPcDEn	DEn	1.80 GWh/d
				ed of conversion to H4 for 1.08 GWh/d	

Sponsors				G	eneral Information
Elecrical Grid conne TenneT TSO GmbH	ction		100%	Promoter	Thyssengas GmbH, Gasunie Deutschland Transport Services GmbH, Tennet TSO Gn
Gas Grid connection				Operator	Thyssengas GmbH
Gasunie Deutschland	d Transport Service	es GmbH	50%	Host Country	Germany
Thyssengas GmbH			50%	Status	Planned
Power to Gas Plant				Website	<u>Project's UR</u>
Gasunie Deutschland	d Transport Service	es GmbH	50%		
Thyssengas GmbH			50%		
Schedule	Start Date	End Date			
Pre-Feasibility		10/2019			
Feasibility	10/2019	12/2019			
FEED Permitting					
Supply Contracts					
FID					
Construction	01/2022	12/2022			
Commissioning	2022	2028			
Grant Obtention					
Date					

Technical Information (ETR)			
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
using separate infrastructure	electrical input of 100 megawatts new entry point: not defined yet Capacity H2: 1.8 GWh/d		2030
addition to natural gas	Injektion of hydrogen to existing natural gas pipelines; electrical input of 40 megawatts new entry point: not defined yet Capacity H2: 0,72 GWh/d		2023
	Capacity H2: 0,72 GWh/d		

	tween the underground st peline.	15/06/2020 hich is directly connected to a wind far orage and the end users for the hydrog eneral Information ONTRAS Gastransport GmbH ONTRAS Gastransport GmbH Germany	
cavern. The transport bet	tween the underground st peline. Ge Promoter Operator	nich is directly connected to a wind fam orage and the end users for the hydrog eneral Information ONTRAS Gastransport GmbH ONTRAS Gastransport GmbH	ed in a nearby sal
cavern. The transport bet	tween the underground st peline. Ge Promoter Operator	eneral Information ONTRAS Gastransport GmbH ONTRAS Gastransport GmbH	
	Promoter Operator	ONTRAS Gastransport GmbH ONTRAS Gastransport GmbH	
	Promoter Operator	ONTRAS Gastransport GmbH ONTRAS Gastransport GmbH	
	Operator	ONTRAS Gastransport GmbH	
	Host Country	Cormany	
		Germany	
	Status	Planned	
	Website	Project's URL	
ate End Date			
04/2019			
019 04/2021			
019 05/2021			
020 12/2020			
2023			

Irrent TYNDP : TYNDP 2020 - Annex	α A	Pag	e 362 of 773
	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Feasibility	capacity increment: 26.000 kWh/h; 0,60 GWh/d	hydrogen is injected in a converted natural gas pipeline	2023

	GETH2-ETR 1		
ETR-N-633	Project	Energy Transition Related Project	Non-FID
Update Date	28/05/2020		Advanced
	Start for the Germany-wide hydrogen infrastructure:		
Description	<ul> <li>Germany has set itself the target of reducing CO2 emissions by 80-95 percent greatest possible efficiency, other key technologies are needed in addition infrastructure.</li> <li>The conversion of electricity from renewables to hydrogen (H2) - power-to The principle: <ul> <li>Electricity from renewable energies is converted to H2</li> <li>The green H2 is distributed via the existing gas infrastructure</li> <li>In the industrial, transport, energy and heating sectors, green H2 is used at H2 that is not used directly is stored in underground caverns especially for</li> </ul> </li> </ul>	to the expansion of renewable energy generation a o-gas - is such a key to a successful energy transition as a CO2-free energy source	and the electricity
PRJ Code - PRJ Name	-		

Sponsors	Ge	eneral Information
	Promoter	Nowega GmbH & Open Grid Europe GmbH
	Operator	Nowega GmbH
	Host Country	Germany
	Status	Planned
	Website	Project's URL

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022
Grant Obtention		
Date		
Supply Contracts FID Construction Commissioning Grant Obtention	2022	2022

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
GET H2	919,8 GWh/y max	919,8 GWh/y max	2022

	Green Hydrogen Hub Ahaus	-Ере	
ETR-N-852	Project	Energy Transition Related Project	Non-FID
Update Date	14/08/2020		Advanced
Description	Production of hydrogen via electrolysis and storage of hydrogen in salt cav salt deposits suitable for creation of caverns capable of large-scale storage infrastructure: high-voltage electricity transmission grid, gas transmission n Seas Region. Electrolysis capacity: Year 2027-300 MW Year 2031-1 GW Hydrogen storage capacity: Year 2027-200 GWh Year 2031-400 GWh. The Large-scale electrolysis optimises the value of RES-E & co-location with larg robust hydrogen supply chain.ETR-N-828 illustrates sector coupling potent entities engaged in transport,construction & industry.	e of hydrogen are present. The location is close to exi- network, multiple gas storage caverns and wind reso results of ETR-N-828 show that project benefits exce ge-scale hydrogen storage maximises the technolog	isting energy urces in the Northern eed project costs. gy benefits ensuring a
PRJ Code - PRJ Name	-		

Sponsors		General Information	
Corre Energy Limited	100%	Promoter	Corre Energy Limited
		Operator	Corre Energy Storage Ltd
		Host Country	Germany
		Status	Planned
		Website	

Schedule	Start Date	End Date
Pre-Feasibility		11/2021
Feasibility	12/2021	01/2022
FEED	02/2022	09/2022
Permitting	05/2022	05/2024
Supply Contracts		05/2024
FID		06/2024
Construction	09/2024	08/2026
Commissioning	2026	2026
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Planning	Power-to-hydrogen electrolysis system with a capacity of up to 1,000 MW - Salt cavern storage of up to 130 million Nm3 (400 GWh) of hydrogen producing 2.712 GWh/day of Green Hydrogen		2026

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	Green Hydrogen Hub I	Etzel	
ETR-N-894	Project	Energy Transition Related Project	Non-FID
Update Date	14/08/2020		Advanced
Description	<ul> <li>Production of hydrogen via electrolysis and storage of hydrogen in salt deposits suitable for creation of caverns capable of large-scale storage infrastructure: high-voltage electricity transmission grid, gas transmission Seas Region.</li> <li>Electrolysis capacity: Year 2027 - 300 MW Year 2031 - 1,000 MW Hydro of ETR-N-828 show that project benefits exceed project costs. Large-scale hydrogen storage maximises the technology benefits ensuring a robust expressions of interest for green hydrogen have been received from en</li> </ul>	of hydrogen are present. The location is close to existin on network, multiple gas storage caverns and wind reso ogen storage capacity: Year 2027 - 200 GWh Year 2031 ale electrolysis optimises the value of RES-E & co-locati t hydrogen supply chain.ETR-N-828 illustrates sector co	ng energy burces in the Northern - 400 GWh. The results ion with large-scale
PRJ Code - PRJ Name	-		

Sponsors		Ge	neral Information
Corre Energy Limited	100%	Promoter	Corre Energy Limited
		Operator	Corre Energy Storage Ltd
		Host Country	Germany
		Status	Planned
		Website	

Schedule	Start Date	End Date
Pre-Feasibility		11/2021
Feasibility	12/2021	01/2022
FEED	02/2022	09/2022
Permitting	05/2022	05/2024
Supply Contracts		05/2024
FID		06/2024
Construction	09/2024	08/2024
Commissioning	2026	2026
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Planning	Power-to-hydrogen electrolysis system with a capacity of up to 1,000 MW - Salt cavern storage of up to 130 million Nm3 (400 GWh) of hydrogen producing 2.712 Gwh/day of Green Hydrogen		2027

Green Hydrogen Hub Harsefeld				
ETR-N-846	Project	Energy Transition Related Project	Non-FID	
Update Date	14/08/2020		Advanced	
Description	Production of hydrogen via electrolysis and storage of hydrogen in s deposits suitable for creation of caverns capable of large-scale stora infrastructure: high-voltage electricity transmission grid, gas transmi capacity: Year 2027 - 300 MW Year 2031 - 1,000 MW Hydrogen stor N-828 show that project benefits exceed project costs. Large-scale e storage maximises the technology benefits ensuring a robust hydrog interest for green hydrogen have been received from entities engage	ge of hydrogen are present. The location is close to existi ssion network and wind resources in the Northern Seas R age capacity: Year 2027 - 200 GWh Year 2031 - 400 GWh electrolysis optimises the value of RES-E & co-location wit gen supply chain.ETR-N-828 illustrates sector coupling po	ng energy egion. Electrolysis n. The results of ETR- h large-scale hydrogen	
PRJ Code - PRJ Name	-			

Sponsors		General Information	
Corre Energy Limited	100%	Promoter	Corre Energy Limited
		Operator	Corre Energy Storage Ltd
		Host Country	Germany
		Status	Planned
		Website	

Schedule	Start Date	End Date
Pre-Feasibility		11/2021
Feasibility	12/2021	01/2022
FEED	02/2022	09/2022
Permitting	05/2022	05/2024
Supply Contracts		05/2024
FID		06/2024
Construction	09/2024	08/2026
Commissioning	2026	2026
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Planning	Power-to-hydrogen electrolysis system with a capacity of up to 1,000 MW - Salt cavern storage of up to 130 million Nm3 (400 GWh) of hydrogen producing 2.712 GWh/day of Green Hydrogen		2026

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Green Hydrogen Hub Moeckow				
ETR-N-883	Project	Energy Transition Related Project	Non-FID	
Update Date	14/08/2020		Advanced	
Description	Production of hydrogen via electrolysis & storage of hydrogen in salt where salt deposits suitable for creation of caverns capable of large-se infrastructure: high-voltage electricity transmission grid, gas transmiss Seas Region. Electrolysis capacity: Year 2027-300 MW Year 2031-1,00 The results of ETR-N-828 show that project benefits exceed project co large-scale hydrogen storage maximises the technology benefits ensu potential as expressions of interest for green hydrogen have been rec	cale storage of hydrogen are present. The location is clossion network, multiple gas storage caverns & wind resou 20 MW Hydrogen storage capacity: Year 2027-200 GWh 20 sts. Large-scale electrolysis optimises the value of RES-E uring a robust hydrogen supply chain.ETR-N-828 illustrat	se to existing energy inces in the Northern Year 2031-400 GWh. & co-location with tes sector coupling	
PRJ Code - PRJ Name	-			

Sponsors			General Information
Corre Energy Limited	100%	Promoter	Corre Energy Limited
		Operator	Corre Energy Storage Ltd
		Host Country	Germany
		Status	Planned
		Website	

Schedule	Start Date	End Date
Pre-Feasibility		11/2021
Feasibility	12/2021	01/2022
FEED	02/2022	09/2022
Permitting	05/2022	05/2024
Supply Contracts		05/2024
FID		06/2024
Construction	09/2024	08/2026
Commissioning	2026	2026
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Planning	Power-to-hydrogen electrolysis system with a capacity of up to 1,000 MW - Salt cavern storage of up to 130 million Nm3 (400 GWh) of hydrogen producing 2.712 GWh/day of Green Hydrogen		2026

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		н	2morrow Steel		
ETR-N-939		Project		Energy Transition Related Project	Non-FID
Jpdate Date	1 1		25/06/2020		Advanced
Description	hydrogen will be produce	d from natural gas by refo	rming in an autothermal reformer. The	bw for a continuous and secure supply he resulting CO2 will be sequestrated a el plant via new built or converted hyd	and stored
PRJ Code - PRJ Name	-				
Sponsors		Ger	neral Information		
		Promoter	Open Grid Europe GmbH; Thyssengas GmbH		
		Operator	Open Grid Europe GmbH		
		Host Country	Germany		
		Status	Planned		
		Website	Project's URL		
Schedule Start	Date End Date				
Pre-Feasibility	03/2020				
Feasibility					
FEED					
Permitting					
Supply Contracts					
FID					
Construction					
Commissioning	2026 2026				
Grant Obtention Date					

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commission ning Year
	capacity increment: 65 GWh/day		5

Update Date03/09/2019AdvanceDescriptionAmprion and OGE want to advance sector coupling. The goal of the project partners is to optimally coordinate the electricity and gas systems system-oriented use of a power-to-gas plant can thus avoid bottlenecks in the transmission grid. From 2023, the plant will convert up to 100 electricity into hydrogen. The aim is to trial all future uses of hydrogen. Part of Open Grid Europe's existing gas pipeline system will be convert transport pure hydrogen. Companies with a need for hydrogen can connect to this network. The mobility sector and converted gas storage fa can also be integrated. The addition of hydrogen to natural gas grids and methanisation are also part of the hybridge concept. This means the green gas can also be used for other purposes, such as heating. The project can be considered in two parts, the electrolysis (realized by Amp and the gas grid infrastructure (realized by OGE). This project only includes the gas grid infrastructure part.	ETR-N-406	Project	Energy Transition Related Project	Non-FID
<ul> <li>System-oriented use of a power-to-gas plant can thus avoid bottlenecks in the transmission grid. From 2023, the plant will convert up to 100 electricity into hydrogen. The aim is to trial all future uses of hydrogen. Part of Open Grid Europe's existing gas pipeline system will be convert transport pure hydrogen. Companies with a need for hydrogen can connect to this network. The mobility sector and converted gas storage factor and so be integrated. The addition of hydrogen to natural gas grids and methanisation are also part of the hybridge concept. This means the green gas can also be used for other purposes, such as heating. The project can be considered in two parts, the electrolysis (realized by Amp</li> </ul>	Update Date	03/09/2019		Advanced
		system-oriented use of a power-to-gas plant can thus avoid bottlenecks electricity into hydrogen. The aim is to trial all future uses of hydrogen. I	s in the transmission grid. From 2023, the plant will conv Part of Open Grid Europe's existing gas pipeline system	vert up to 100 MW will be converted t

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Production (OGE) (DE)	Open Grid Europe GmbH	2023	NPcDEn	DEn	2.00 GWh/d

Sponsors	Gen	eral Information
	Promoter	Open Grid Europe GmbH
	Operator	Open Grid Europe GmbH
	Host Country	Germany
	Status	Planned
	Website	<u>Project's URL</u>

	1DF 2020 - AIII	
Schedule	Start Date	End Date
Pre-Feasibility		03/2019
Feasibility	01/2019	03/2020
FEED	01/2020	12/2020
Permitting	01/2021	12/2021
Supply Contracts		
FID		01/2020
Construction	01/2022	06/2023
Commissioning	2023	2023
Grant Obtention		

Date



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## Hydrogen pipeline system conversion projects of german gas NDP 2020-2030

ETR-N-952	Project	Energy Transition Related Project	Non-FID
Update Date	25/06/2020		Advanced
Description	Hydrogen pipeline system conversion projects of german gas NDP 2020-20 are not included); IDs german gas NDP: 705, 706, 707 (share OGE: 50%), 708		
PRJ Code - PRJ Name	-		

Sponsors	Gen	eral Information
	Promoter	Open Grid Europe GmbH
	Operator	Open Grid Europe GmbH
	Host Country	Germany
	Status	Planned
	Website	



	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
	pipeline length: 262 km (total length) pipeline diameters: 400-900 mm capacity increment: 72,05 GWh/day (including new pipeline and conversion projects)		

## New hydrogen pipeline projects of german gas NDP 2020-2030

ETR-N-948			Projec	t	Energy Transition Related Project	Non-FID
Jpdate Date				25/06/2020		Advanced
Description			e projects of german ga man gas NDP: 731, 732	as NDP 2020-2030 (new pipeline project 2, 733, 734, 735, 743	ts only; new facilities and pipeline syste	m conversion pro
PRJ Code - PRJ Name	, -					
Sponsors				General Information		
			Promoter	Nowega GmbH; Open Grid Europe GmbH; Thyssengas GmbH		
			Operator	Open Grid Europe GmbH		
			Host Country	Germany		
			Status	Planned		
			Website			
Schedule	Start Date	End Date				
Pre-Feasibility						
easibility						
EED						
Permitting						
Supply Contracts						
FID						
Construction						

Commissioning

2030

Grant Obtention

Date

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissic ning Year
	pipeline length: 93,1 km pipeline diameters: 300-600 mm capacity increment: 72,05 GWh/day (including new pipeline and conversion projects)		

		Nord S	Stream 2				
TRA-F-937		Project			Pipeline includin	g CS	FID
Update Date		18,	/11/2019			Ac	dvanced
Description	Transport of natural gas from supply of natural gas, strengt			erman s	shore. Nord Stream	2 will enhance the E	EU's security o
PRJ Code - PRJ Name	-						
Capacity Increments Varia	ant For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Lubmin II		Nord Stream 2 AG	:	2019	RU/NO2	DEg	1,750.00 GWh/d
		Comment: Two ad	lditional route options provide	ed for D	Denmark. Permit exp	ected anytime soon.	
Sponsors		General In	formation		NDP an	d PCI Information	
Nord Stream 2 AG	100%	Promoter	Nord Stream 2 AG			(4) there is no obliga	
		Operator	Nord Stream 2 AG	Part o	of NDP leve	el for such a project a	to be part of th NE
		Host Country	Germany		Number		INL
		Status	In Progress	NDP Number SS NDP Release Date			
		Website	<u>Project's URL</u>		Website		
					ntly PCI		1
					ty Corridor(s)		,
					-) (-)		

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			0
Start Date	End Date	Third-Party Access Regin	ne
		Considered TPA Regime	Not Applica
01/2012	10/2012	Considered Tariff Regime	Not Applical
		Applied for Exemption	Not Releva
		Exemption Granted	Not Releva
	12/2016		
	09/2015	Exemption in entry direction	0.00
02/2018	12/2019	Exemption in exit direction	0.00
2019	2019		
	01/2012 02/2018	01/2012 10/2012 12/2016 09/2015 02/2018 12/2019	01/2012 10/2012 Considered TPA Regime Considered Tariff Regime Applied for Exemption Exemption Granted 09/2015 Exemption in entry direction 02/2018 12/2019 Exemption in exit direction

Pipeline Section       Diameter (mm)       Length (km)       Compressor Power (MW)         Nord Stream 2       1,153       1,200       1 <t< th=""><th></th></t<>	
Total     1,200       Expected Gas Sourcing       Russia	r Comissionin Year
Expected Gas Sourcing Russia	0
Russia	
Russia	
Benefits	
Main Driver Market Demand	
Main Driver Explanation	
Benefit Description Nord Stream 2 will enhance the EU's security of supply of natural gas, strengthen the internal market and support EU climate goals.	

	Barriers						
Barrier Type	Description						
Permit Granting Two additional route options provided for Denmark. Construction permit expected anytime soon.							
Political	Two additional route options provided for Denmark. Construction permit expected anytime soon.						

	СВСА	Fina	ncial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

## NOWAL - Nord West Anbindungsleitung

TRA-F-291	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	It is necessary to increase the capacity of the pipeline NOWAL between the GASPOOL). Given information describes the part of the project that is not cand GDRM-Anlage Drohne. This will increase the capacity at interconnection	commissioned yet, i.e. the upgrade of the stations	GDRM-Anlage Rehden
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
	GASCADE Gastransport GmbH	2020	DEg	DEn	200.00 GWh/d	
Drohne NOWAL	Comment: Level 2, on top of Level 1. In total 536 GWh/d. Increment due to upgrade of stations GDRM-Anlage Rehden and GDRM-Anlage Drohne.					

Sponsors		G	General Information		P and PCI Information
GASCADE Gastransport GmbH	100%	Promoter	GASCADE Gastransport GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018-
		Operator	GASCADE Gastransport GmbH		2028)
		Host Country	Germany	NDP Number	410-01a and 410-01b
		Status	Planned	NDP Release Date	20/03/2019
		Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>
				Currently PCI	No
				Priority Corridor(s)	

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	NDF 2020 - AIIII			rage 505 01775
Schedule	Start Date	End Date	Third-Party Access R	Regime
Pre-Feasibility			Considered TPA Regime	Regulated
Feasibility			Considered Tariff Regime	Regulated
FEED			Applied for Exemption	N
Permitting	01/2014	01/2016	Exemption Granted	Not Relevan
Supply Contracts				
FID		05/2019	Exemption in entry direction	0.00%
Construction	04/2020	10/2020	Exemption in exit direction	0.00%
Commissioning	2020	2020		
Grant Obtention				
Date				

Expected Gas Sourcing

#### VHP GASPOOL

	Benefits			
Main Driver	Market Demand			
Main Driver Explanation	Main Driver Explanation Part of the German National Development Plan 2018-2028: 410-01a, 410-01b			
Benefit Description	Ensures additional flows to NCG required due to transition from L-gas to H-gas.			

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	CBCA	Financ	ial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

## Renewable Hydrogen according to NEP2020

ETR-N-622	Project	Energy Transition Related Project	Non-FID
Update Date	15/06/2020		Advanced
Description	<ul> <li>The upcoming NDP will include two concrete scenarios for the integration of</li> <li>For 2025 a market survey was performed by the German TSOs to collect core</li> <li>Projects could either provide directly hydrogen or methane via an addition in</li> <li>For 2030 a total of 7.5 GW_el of P2G will be considered. The German TSOs This scenario should support the ramp up of the development.</li> <li>This project is covering the hydrogen infeed as envisioned in the NDP 2020. renewable gas projects, that have not been put individually into the TYNDP.</li> <li>The "towards 2050"-path is including the (additional) P2G installations considered.</li> </ul>	ncrete projects for the supply of renewable gas from methanation process. see large need for P2G installations for an efficient It covers in the "market survey"-path the total hyd	t path towards 2050.
PRJ Code - PRJ Name	-		

Point	Operator	Year	From Gas System	To Gas System	Capacity
Production (DE) (GUD) H-Gas-Summe Produktion	Gasunie Deutschland Transport Services GmbH	2020	NPcDEg	DEg	1.20 GWh/d
	Gasunie Deutschland Transport Services GmbH	2021	NPcDEg	DEg	0.90 GWh/d
	Gasunie Deutschland Transport Services GmbH	2022	NPcDEg	DEg	3.20 GWh/d
	Gasunie Deutschland Transport Services GmbH	2023	NPcDEg	DEg	4.20 GWh/c
	Gasunie Deutschland Transport Services GmbH	2024	NPcDEg	DEg	1.40 GWh/d
	Gasunie Deutschland Transport Services GmbH	2025	NPcDEg	DEg	6.00 GWh/c

Production (DE) (GUD) H-Gas-Summe Produktion	Gasunie D GmbH	eutschland Transport Services	2030	NPcDEg	DEg	0.90 GWh/d
Sponsors	(	General Information				
	Promoter	Gasunie Deutschland Transpor Services Gmbl				
	Operator	Gasunie Deutschland Transpor Services Gmbl				
	Host Country	German	V			
	Status	Planne	d			
	Website	<u>Project's UR</u>	<u>L</u>			
Schedule Start Date End Date						

Pre-Feasibility		01/2021
Feasibility	01/2019	01/2023
FEED	01/2022	01/2024
Permitting	01/2021	01/2024
Supply Contracts		01/2022
FID		01/2023
Construction	01/2023	01/2025
Commissioning	2020	2030
Grant Obtention Date		

Technical Information (ETR)				
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year	
Phase 1	4 Projects; 67 MW(el); 1.2 GWh/d H2 capacity		2020	
Phase 2	7 Projects; 119 MW(el); 2.1 GWh/d H2 capacity		2021	
Phase 3	17 Projects; 300 MW(el); 5.4 GWh/d H2 capacity		2022	
Phase 4	26 Projects; 530 MW(el); 9.6 GWh/d H2 capacity		2023	
Phase 5	27 Projects; 67 MW(el); 11 GWh/d H2 capacity		2024	
Phase 6	32 Projects; 950 MW(el); 17.1 GWh/d H2 capacity		2025	
Phase 7	32 Projects; 1000 MW(el); 18 GWh/d H2 capacity		2030	

## Renewable Methane according to NEP2020

ETR-N-616	Project	Energy Transition Related Project	Non-FID		
Update Date	11/08/2020		Advanced		
Description	The upcoming NDP will include two concrete scenarios for the integration of • For 2025 a market survey was performed by the German TSOs to collect con- Projects could either provide directly hydrogen or methane via an addition • For 2030 a total of 7.5 GW_el of P2G will be considered. The German TSOs This scenario should support the ramp up of the development.	oncrete projects for the supply of renewable gas from methanation process.			
	This project is covering the renewable methane infeed from P2G as envisioned in the NDP 2020. It covers in the "market survey"-path the to supply from renewable gas projects, that have not been put individually into the TYNDP.				
PRJ Code - PRJ Name	-				

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Production (DD) (CUD) II Coo Summa Production	Gasunie Deutschland Transport Services GmbH	2023	NPcDEg	DEg	0.26 GWh/d
Production (DE) (GUD) H-Gas-Summe Produktion	Gasunie Deutschland Transport Services GmbH	2025	NPcDEg	DEg	0.60 GWh/d

Sponsors	(	General Information	
	Promoter	Gasunie Deutschland Transport Services GmbH	
	Operator	Gasunie Deutschland Transport Services GmbH	
	Host Country	Germany	
	Status	Planned	
	Website	Project's URL	

Schedule	Start Date	End Date
Pre-Feasibility		01/2020
Feasibility	01/2019	01/2023
FEED	01/2022	01/2024
Permitting	01/2021	01/2025
Supply Contracts		01/2022
FID		01/2023
Construction	01/2023	01/2025
Commissioning	2023	2025
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Phase 1	100MW PtG; hydrogen + biomethane		2023

TRA-F-208	Project	FID	
Update Date	22/11/2019		Advanced
Description	The project includes reversing of CS Hügelheim to allow gas coming from south Euro (which has been commissioned in 2018), as well as the construction of a deodorisatio 2020), including modifications to all necessary installations to allow gas coming from Wallbach. Fluxys TENP Open Grid Europe will both take part in the commercial opera	n plant near the German-Swiss border ( France to be transported through the o	to be commissioned in
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Wallbach	Fluxys TENP GmbH & Open Grid Europe GmbH	2020	СН	DEn	240.00 GWh/d

Sponsors		General Information		NDP and PCI Information		
Fluxys TENP GmbH	64.25 %	Promoter	Fluxys TENP GmbH & Open Grid Europe GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018- 2028)	
Open Grid Europe GmbH	35.75 %	Operator	Fluxys TENP GmbH & Open Grid	NDP Number	305-02	
		1	Europe GmbH	NDP Release Date	20/03/2019	
		Host Country	Germany	NDP Website	NDP URL	
		Status	In Progress	Currently PCI	No	
		Website	Project's URL	Priority Corridor(s)		

NDP 2020 - Ann	ex A		Page 393 of 773
Start Date	End Date	Third-Party Access R	egime
	01/2015	Considered TPA Regime	Regulated
10/2012	01/2015	Considered Tariff Regime	Regulated
03/2017	11/2017	Applied for Exemption	No
12/2016	10/2018	Exemption Granted	Not Relevant
	04/2018		
	01/2015	Exemption in entry direction	0.00%
06/2017	10/2020	Exemption in exit direction	0.00%
2020	2020		
	Start Date 10/2012 03/2017 12/2016 06/2017	01/2015 10/2012 01/2015 03/2017 11/2017 12/2016 10/2018 04/2018 01/2015 06/2017 10/2020	Start DateEnd DateThird-Party Access R01/201501/2015Considered TPA Regime10/201201/2015Considered Tariff Regime03/201711/2017Applied for Exemption12/201610/2018Exemption Granted04/201801/2015Exemption in entry direction06/201710/2020Exemption in exit direction

Expected Gas Sourcing

Algeria, Caspian Region, Libya, Russia, LNG ()

	Benefits
Main Driver	Others
Main Driver Explanation	
Benefit Description	Contribution to the covering of the H-Gas Demand for Germany and to the switch from L- to H-gas.

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 0.4
Website		Grants for works	Yes
Countries Affected		Grants for works amount	Mln EUR 8.7
Countries Net Cost Bearer		Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

TRA-N-402	Project	Pipeline including CS	Non-FID					
Update Date	07/09/2020		Advanced					
	In the Germand Network Development Plan (NEP 2018) several scenarios have been analyzed to take account of the supply secur German state of Baden-Württemberg and the demand for southbound transports to Switzerland and Italy.							
Description	Two pipeline sections will be built between Mittelbrunn and Schwanheim(Region Rheinland-Pfalz) and between Hügelheim and Tannenkirch (Re Baden-Württemberg).							
	It will ensure the security of supply needs for the Region Baden-Württemberg, identified in an additional demand of 5.2 GWh/h. Additionally, these investments will secure a capacity of 13.3 GWh/h at the Cross-Border Exit Point Wallbach towards Switzerland and Italy.							
PRJ Code - PRJ Name -								

Sponsors		General Information		NDP and PCI Information	
Fluxys TENP	64.25 %	Promoter	Fluxys TENP GmbH & Open Grid Europe GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018- 2028)
OGE	Host ( Status	Operator Fluxys TENP GmbH & Open Grid Europe GmbH	NDP Number	552-01 / 554-01 / 555-01	
			Europe GmbH	NDP Release Date	20/03/2019
		Host Country	Germany	NDP Website	<u>NDP URL</u>
		Status	Planned	Currently PCI	No
		Website		Priority Corridor(s)	

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2024	2024
Grant Obtention		
Date		

Pipelines and Compressor Stations			
Pipeline Section	Pipeline Comment	Diameter Length Compressor Powe (mm) (km) (MW)	er Comissioning Year
Connections TENP I - TENP II		600	2021
Pipeline Hügelheim-Tannenkirch		900 16	2024
Pipeline Mittelbrunn-Schwanheim		1,000 38	2024
	Total	54	

	Benefi	ts
Main Driver	Regulation SoS	
Main Driver Explana	ation	
Benefit Description		

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	CBCA	Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturia Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF	No decision yet taken	
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer			110	
Additional Comments		Comments		
		General Comments		

	Upgrade Sülstorf station		
TRA-F-1267	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	The station Sülstorf has to be upgraded by a preheating facility and an addition pipeline NEL into the pipeline FGL 219.	onal measturing section in order to allow for ac	lditional flow from the
PRJ Code - PRJ Name	-		

Sponsors			General Information		NDP and PCI Information	
		Promoter	NGT GmbH / GUD GmbH & Co. KG / Fluxys D GmbH	Part of NDP	Yes (Netzentwicklungsplan Gas 2018- 2028)	
Gasunie Deutschland GmbH & Co. KG 25%		% Operator	NEL Gastransport GmbH	NDP Number	507-01k	
Fluxys Deutschland C				Germany	NDP Release Date	20/03/2019
			Status	Planned	NDP Website	<u>NDP URL</u>
			Website	Project's URL	Currently PCI	No
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third-F	Party Access Regime
Pre-Feasibility					Considered TPA Regime	e Regulated
Feasibility					Considered Tariff Regim	ne Regulated
FEED					Applied for Exemption	No
Permitting					Exemption Granted	No
Supply Contracts						
FID		03/2019			Exemption in entry direc	ction 0.00%
Construction	06/2019	10/2019			Exemption in exit directi	ion 0.00%
Commissioning	2019	2019				
Grant Obtention Date						

	Benefits
Main Driver	Market Demand
Main Driver Explanation	The project will satisfy market demand that was expressed through binding capacity bookings in the context of "more capacity". The market demand is proven by the successful auctioning of the new capacities in the yearly auctions of 2017 that also proves the economic viability of the project.
Benefit Description	The "more capacity" projects - especially in combination with the other projects within PRJ group "More capacity - DE/CZ Capacity4Gas Project" - will enhance market integration, security of supply, sustainability, and competition within Europe.

	CBCA	Financial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
	and we do not plan to submit it	Grants for studies	No	
Submissin Date		Grants for studies amount	Mln EUR 0.0	
Decision Date		Grants for works	No	
Website		Grants for works amount	Mln EUR 0.0	
Countries Affected		Intention to apply for CEF	No, we do not plan to apply	
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		



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# Vlieghuis (NL)/ Emlichheim (DE) Capacity for Hydrogen according to the NDP

ETR-N-905	Project	Energy Transition Related Project	Non-FID
Update Date	22/06/2020		Advanced
Description	According to the german NDP 2020-2030 this Increment project for Hydroger	n shows the capacity at the IP Vlieghuis (NL) -Emi	mlichheim (DE)
			Initerine (DL).

Sponsors	G	eneral Information
	Promoter	Thyssengas GmbH
	Operator	Thyssengas GmbH
	Host Country	Germany
	Status	Planned
	Website	

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2025	2025
Grant Obtention		
Date		

Current TYNDP : TYNDP 2020 - Annex A		Page 401 of 773	
	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
commissioning H2-IP	planned entry-capacity is 500 MWh/h = 12 GWh/d		2025

# Wilhelmshaven LNG-Terminal Anbindungsleitung

TRA-A-408	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Advanced
Description	Project to connect the planned LNG Terminal Wilhelmshaven to the German tran	nsmission system for gas.	
PRJ Code - PRJ Name	-		

Sponsors		Gen	eral Information	NDI	P and PCI Information	
			Promoter Operator Host Country Status Website	Open Grid Europe GmbH Open Grid Europe GmbH Germany Planned	Part of NDP NDP Number NDP Release Date NDP Website	No ((1) the NDP was prepared at an earlier date and the project will be proposed for inclusion in the next NDP)
					Currently PCI Priority Corridor(s)	No
Schedule	Start Date	End Date			Third-Party Access Regime	
Pre-Feasibility					Considered TPA Regir	me <i>Regulated</i>
Feasibility	10/2018	03/2019			Considered Tariff Reg	ime <i>Regulated</i>
FEED	02/2019	11/2019			Applied for Exemption	n <i>No</i>
Permitting Supply Contracts	12/2019	12/2020			Exemption Granted	No
FID		12/2020			Exemption in entry di	rection 0.00%
Construction	06/2021	10/2022			Exemption in exit dire	ection 0.00%
Commissioning Grant Obtention Date	2022	2022				

	Expected Ga	as Sourcing	
LNG ()			
	Bene	efits	
Main Driver	Market Demand		
Main Driver Explanation			
Benefit Description			
	СВСА	Finan	cial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Submissin Date	not	Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
		Grants for works amount	Mln EUR 0.0
		Grants for works amount	
Website		Intention to apply for CEF	
Website Countries Affected			No
Website		Intention to apply for CEF	No

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# ZEELINK

TRA-F-329	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	Pipeline and two compressor stations project to support the changeover from	low-calorific gas to high-calorific gas in Germany	
PRJ Code - PRJ Name	-		

Sponsors			General Information	N	DP and PCI Information
CS Legden Open Grid Europe GmbH, Germany	75%	Promoter	Open Grid Europe GmbH and Thyssengas GmbH	Part of NDP	Yes (Netzentwicklungsplan 2018 (German NDP 2018))
	•	Operator	Open Grid Europe GmbH	NDP Number	203-02, 204-02a-d, 205-02a-b, 416-02,
Thyssengas GmbH, Germany	25%	Host Country	Germany	NDP Release Date	20/03/2019
CS Würselen		Status	Planned	NDP Website	<u>NDP URL</u>
Open Grid Europe GmbH, Germany	75%	Website	Project's URL	Currently PCI	No
Thyssengas GmbH, Germany	25%			Priority Corridor(s)	
ZEELINK 1					
Open Grid Europe GmbH, Germany	75%				
Thyssengas GmbH, Germany	25%				
ZEELINK 2					
Open Grid <mark>Europe G</mark> mbH, Germany	75%				
Thyssengas GmbH, Germany	25%				

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	09/2015	09/2020
Permitting	09/2017	09/2020
Supply Contracts		08/2016
FID		01/2018
Construction	04/2019	03/2023
Commissioning	2023	2023
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Legden				26	2023
CS Würselen				39	2021
ZEELINK 1		1,000	112		2021
ZEELINK 2		1,000	115		2021
	Total		227	65	

Expected Gas Sourcing

Norway, LNG (BE,FR,NL,UK)

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Benefits					
Main Driver	Market Demand				
Main Driver Explanation	Changeover of regions currently supplied by low-calorific gas to high-calorific gas due to declining availability of low-calorific gas				
Benefit Description	Availability of low-calorific gas is declining in Germany. The regions currently supplied by low-calorific gas will need to switch supply from low-calorific gas to high-calorific gas. The project is needed to transport high-calorific gas to the regions currently supplied by low-calorific gas.				

CBCA		Financial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we do not plan to submit it	Grants for studies	No	
Submissin Date		Grants for studies amount	Mln EUR 0.0	
Decision Date		Grants for works	No	
Website		Grants for works amount	Mln EUR 0.0	
Countries Affected		Intention to apply for CEF	No, we do not plan to apply	
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		

# Zevenaar (NL)/ Elten (DE) Capacity of Hydrogen according to the NDP

ETR-N-911	Project	Energy Transition Related Project	Non-FID
Update Date	22/06/2020		Advanced
Description	According to the german NDP 2020-2030 this Increment project for Hydrogen s	shows the capacity at the IP Zevenaar (NL)-Elte	n (DE).
PRJ Code - PRJ Name	-		

Sponsors		General Information	
Open Grid Europe GmbH	50%	Promoter	Thyssengas GmbH and Open Grid Europe GmbH
Thyssengas GmbH	50%	Operator	Thyssengas GmbH
		Host Country	Germany
		Status	Planned
		Website	



Current	TYNDP	P: TYNDP	2020 - Annex A	
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Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
commissioning H2-IP	planned entry-capacity is about 40 GWh/d		5

Biomethane reverse flow Denmark					
ETR-A-64	Project	Energy Transition Related Project	Non-FID		
Update Date	15/08/2019		Advanced		
Description	The objective of this reverse flow project from DSO grid to TSO grid, is to ensite the transmission grid. The project is a virtual aggregation of three physical properties in Total 746 MWh/h biomethane production capacity is connected to the DSO uses intermediate pressure compres-sors to lift the gas to a higher-pression ethane in the high-pressure distribution grid exceeds demand, high-pressure step 1: Biomethane -> low pressure distribution grid at 4 bar, supplying local step 2: When local demand in the 4 bar distribution grid is saturated. DSO restep 3: When local demand in the 20-40 bar distribution grid is satura	ojects establishing reverse flows from DSO grid t O grid at low pres-sure level (4 bar). When supply sure distribution grid (from 4 bar to 20/40 bar). V ssure compres-sors lift the gas to the TSO grid 2 demand	o TSO grid. y exceeds demand, the When supply of		
PRJ Code - PRJ Name	-				

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Energinet	2021	DScDK	DK	1.00 GWh/d
ETR virtual aggregation (DK)	Comment: As the reverse flow varies significantly over the year. The increment is the expected				
	average ent	ry to the TSO grid. The	e peak increment is the	e installed capacity	

Sponsors	General Info	ormation
	Promoter	Energinet
	Operator	Energinet
	Host Country	Denmark
	Status	Planned
	Website	

Schedule	Start Date	End Date		
Pre-Feasibility				
Feasibility	08/2018	09/2019		
FEED	02/2019	09/2019		
Permitting	06/2019	04/2021		
Supply Contracts		01/2020		
FID		09/2019		
Construction	04/2021	04/2021		
Commissioning	2021	2021		
Grant Obtention Date				

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Reverse flow Denmark	Reverseflow units: 3 Total biomethane production ab plants: 746 MWh/h Biomethane reverse flow (DSO-TSO) Compressor capacity: 294 Metering (quality and quantity) and de-odorisation of gas	MWh/h	2021

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Green Gas Lolland-Falster					
ETR-N-922	Project		Energy Transition Related Project	Non-FID	
Update Date	13	3/07/2020		Advanced	
Description PRJ Code - PRJ Name	The purpose of the project is to establish a transmission a Two of the biggest energy consumers in Denmark are loca The project is a two-faced project. On one hand it will ena possible, on the other hand the project will enable integra with the potential to rise to 100% within some years. Goin from excess power produc-tion. The project consists of about 115 km 40 bar pipeline, inclu- injection of biogas there will be installed compressor and -	ated on these islands. Ible gas to industries where there ation of biogas production. Initial og to 100% will require methanat uding connecting meter and reg	e is no gas infrastructure and where e lly the biogas production will be 50% ion of excess CO2 from biogas prod	electrification is not 6 of the consumptior uction with hydroger	
Sponsors	General I	nformation			
	Promoter	Energinet			
	Operator	Energinet			
	Host Country	Denmark			
	Status	Planned			
	Website	<u>Project's URL</u>			

Schedule	Start Date	End Date
Pre-Feasibility		09/2019
Feasibility	09/2019	10/2020
FEED	01/2020	01/2021
Permitting	01/2020	01/2022
Supply Contracts		01/2021
FID		09/2020
Construction	06/2022	09/2023
Commissioning	2023	2023
Grant Obtention		

Date



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ETR-N-828		Project		Energy Transition Related Project	Non-FID
Update Date			14/08/2020		Advanced
Description	suitable for storage of hydrog infrastructure: high-voltage e Seas Region. Electrolysis capa 400 GWh The project benefits exceed p maximises the benefits of the	gen are created in salt d lectricity transmission g acity - Year 2025 - 300 N project costs. Large-scale se technologies and en	eposits by Nouryon during its salt p rid, gas transmission network, unde AW - Year 2030 - 1,000 MW - Hydro e electrolysis optimises the value of	s located in Northern Jutland, Denmark producing activities. Located close to ex erground gas storage and wind resource ogen storage capacity - Year 2025 - 200 RES-E and co-location with large-scale upply chain. Sector coupling potential of sport, construction & industry.	xisting energy es in the Northern 0 GWh - Year 2030 e hydrogen storage
Sponsors		Gen	eral Information		
Corre Energy Limited	100%	Promoter	Corre Energy Limited		
		Operator	Corre Energy Storage Ltd		
		Host Country	Denmark		
		Host Country Status	<i></i>		
		Host Country	Denmark		
		Host Country Status	Denmark		
		Host Country Status	Denmark		
		Host Country Status	Denmark		

Schedule	Start Date	End Date
Pre-Feasibility		11/2020
Feasibility	12/2020	01/2021
FEED	02/2021	09/2021
Permitting	05/2021	05/2023
Supply Contracts		05/2023
FID		06/2023
Construction	09/2023	08/2025
Commissioning	2025	2025
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Planning	Power-to-hydrogen electrolysis system with a capacity MW - Salt cavern storage of up to 130 million Nm3 (4 hydrogen producing 2.712 GWh/day of Green Hydroge hydrogen-fuelled CAES facility with generation capacit which has been accepted by ENTSO-E as eligible for in TYNDP 2020 (TYNDP Project No. 1044).	400 GWh) of ien - GHH CAES, a ity of 320 M	2025

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# Norwegian tie-in to Danish upstream system

TRA-A-394	Project	Pipeline including CS	Non-FID
Update Date	26/09/2019		Advanced
Description	A new offshore pipeline between the Norwegian gas system (Europipe II) in a combination with the Baltic Pipe - that Norwegian gas (approx. 10 bcm/year the wider Central and Eastern European region. This will provide a number of could also flow through the Danish German interconnection point Ellund-Eg construction of a new offshore pipeline between the Norwegian gas system Denmark is planned on the beach near Blåbjerg), construction of a new pipe receiving plant at Nybro. - Former project name: "Gassled -Norwegian upstream system to Denmark"	) can be transported directly through Denmark to f countries with improved access to additional su tved to the wider European gas market. The proje in the North Sea (the offshore pipeline landfall or	o Sweden, Poland and pply sources. The gas ect consists of n the west coast of
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Europine (NO) / Baltia Bine (DK)	Energinet	2022	NO	IB-NPcDKn	306.80 GWh/d
Europipe (NO) / Baltic Pipe (DK)		Commer	t: Connection to the I	Norwegian offshore	2
N. J	Energinet	2022	IB-NPcDKn	DK	306.80 GWh/d
Nybro			Comment: Del	ete peak incremen	t

Sponsors	General Inf	General Information		NDP and PCI Information		
	Promoter	Energinet.dk	Part of NDP	No ((2) no NDP exists in the country)		
	Operator	Energinet	NDP Number			
	Host Country	Denmark	NDP Release Date			
	Status	Planned	NDP Website			
	Website	<u>Project's URL</u>	Currently PCI	No		
			Priority Corridor(s)			

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	09/2015	12/2016
FEED	05/2018	02/2022
Permitting	01/2018	07/2019
Supply Contracts		10/2017
FID		12/2018
Construction	01/2020	10/2022
Commissioning	2022	2022
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Norwegian tie-in to Danish upstream system			105	0	2022
	Total		105	0	
	Total		105	0	

Norway	Expected Ga	
	Bene	fits
Main Driver	Market Demand	
Main Driver Explan	nation	
Benefit Description	n	

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	СВСА		Financial Assist	ance
Decision	Yes, we have submitted an investment request and have	Applied for CEF		(3) No, we have not applied for CEF
	received a decision	Grants for studies		No
Submissin Date	27/10/2017	Grants for studies amount		Mln EUR 0.0
Decision Date	27/02/2018	Grants for works		No
Website	<u>CBCA URL</u>	Grants for works amount		Mln EUR 0.0
Countries Affected	Denmark, Poland, Sweden	Intention to apply for CEF		
Countries Net Cost Bearer		Other Financial Assistance		No
	The Danish NRA (DERA) approved the CBCA on the	Comments		
	27 February 2018. The Polish NRA (URE) approved the CBCA on the 12 March 2018.	General Comments		

Additional Comments

er/2018/godkendelse-af-omkostningsfordelingenmellem-polen-og-danmark-for-baltic-pipe-projektet/ The Polish decision can be found here: https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje/inne-

http://energitilsynet.dk/gas/afgoerelser/tilsynsafgoerels

decyzje-informacj/3634,Inne-decyzje-informacjesprawozdania-opublikowane-w-2018-r.html? search=3253

The Danish decision can be found here:

# Enhancement of Estonia-Latvia interconnection

TRA-F-915	Project	Pipeline including CS	FID
Update Date	22/11/2019		Advanced
Description	The project composes of implementation of reverse flow in Karksi metering a reverse flow gas measuring station would be erected to the location of the ere measuring of gas quantities through Estonia with the main advantages of re- pipeline. Karksi reverse flow enables the full use of Inculkalns UGS for all the transportation of gas through Estonia and the Balticconnector offshore pipel enable the full use of the planned offshore pipeline without a compressor sta- the physical implementations needed for market integration between the Ba	existing measuring station in Karksi. Karksi reverse everse flow used after the commissioning of the B e market participants. Puiatu compressor station e line to the Finnish gas market. The current system tation in south of Estonia. Puiatu compressor stati	flow enables the alticconnector offshore nables the design does not
PRJ Code - PRJ Name			

Point	Operato	r Year	From Gas System	To Gas System	Capacity
Kadad	Elering /	S 2019	EE	LV	105.00 GWh/d
Karksi	Elering	S 2019	LV	EE	42.00 GWh/d

Sponsors			General Information	NDI	P and PCI Information
Karksi metering station		Promoter	Elering AS	Part of NDP	Yes (EESTI GAASIÜLEKANDEVÕRGU
Elering AS	100%	Operator	Elering AS		ARENGUKAVA 2019-2028)
Puiatu Compressor Station		Host Country	Estonia	NDP Number	paragraph 3.2
	1009/	Status	In Progress	NDP Release Date	03/03/2019
Elering AS	100%	Website	Project's URL	NDP Website	NDP URL
				Currently PCI	No
				Priority Corridor(s)	

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Schedule	Start Date	End Date
Pre-Feasibility		01/2015
Feasibility	01/2015	01/2016
FEED	05/2015	05/2016
Permitting	09/2015	06/2019
Supply Contracts		02/2018
FID		10/2016
Construction	06/2018	12/2019
Commissioning	2019	2019
Grant Obtention		
Date		

Karksi GMS, Puiatu CS				
			10	2019
	Total		10	
	Expected Gas Sourcing			
Russia, LNG (WO)				
	Benefits			
Main Driver Regulation	on-Interroperability			
Main Driver Explanation Main pro	ject driver is the operational link with the Balticconnector project.			
Benefit Description				

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	07/04/2016	Grants for studies	No
Decision Date	22/04/2016	Grants for studies amount	Mln EUR 0.0
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Finland, Latvia	Grants for works amount	Mln EUR 18.6
Countries Net Cost Bearer	Estonia	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

#### Paldiski LNG Terminal LNG-A-79 LNG Terminal Project Non-FID 15/08/2019 Non-Advanced Update Date LNG import and regasification terminal for regional use on the Pakri peninsula on the Easern coast of the Baltic Sea Description **PRJ Code - PRJ Name Capacity Increments Variant For Modelling** Point Operator Year From Gas System To Gas System Capacity Balti Gaas plc 2025 LNG\_Tk\_EE EE 140.00 GWh/d Paldiski LNG Comment: The regasification capacity will be dependent on market demand and BalticConnector usage. **General Information** NDP and PCI Information Sponsors Balti Gaas LLC Yes (Estonian transmission system Balti Gaas plc 100% Promoter Part of NDP development plan for 2018-2027) Operator Balti Gaas plc NDP Number Estonia Host Country NDP Release Date 03/03/2018 Planned Status NDP Website NDP URL Project's URL Website **Currently PCI** No Priority Corridor(s) **BEMIP**

Current TYNDP : TYNDP 2020 - Annex A	Current	TYNDP	: TYNDP	2020 -	Annex A
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Schedule	Start Date	End Date
re-Feasibility		11/2008
Feasibility	01/2012	01/2016
FEED	04/2013	04/2014
Permitting	01/2008	06/2017
Supply Contracts		01/2024
FID		01/2022
Construction	11/2022	12/2025
Commissioning	2025	2025
Grant Obtention		
Date		

Technical Information (LNG)									
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
Paldiski LNG terminal	Yes	Paldiski LNG Terminal	2.0	160,000	135.00	160,000	Estimates	2025	25

### **Fulfilled Criteria**

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

#### Delays since last TYNDP

Delay Since Last TYNDP

**Delay Explanation** 

The project is technically ready for construction, but no FID can be taken before the competing projects and govermental aid issues are solved (political decision regarding regional LNG terminal and potential financial aid to it).

#### LNG (LNG)

#### Comments about the Third-Party Access Regime

The regulatory scheme applicable to this project is unclear. Since the project intends to reinstate the PCI lable, and thus would have significant cross-border impact, the regulatory scheme must be acceptable to all concerned regulators. Additionally, the regulation for LNG terminals in the project country (Estonia) does not yet exist.

		Benefits					
Main Driver	Others						
Main Driver Explanation provide alternative sources as well as storage capability. Currently, there is a temporary solution in Klaipeda, but a permanent and more efficient so is needed, especially after BalticConnector, to supply the whole region.							
Benefit Description	ption Additionally the terminal is capable of servicing the potential Baltic bunkering demand as well as provide alternative fuel to road and rail transport in th affected countries. It can also be the Baltic region Hub for smaller LNG terminals (Pori, Hamina, Tornio).						
		Barriers					
Barrier Type	Description						
Regulatory	Regulatory framework for LNG facilities in Estonia is insufficient to clarify this point.						
Permit Granting	Long process						
Political	cal The assesment methods of competing PCI projects is not well established.						
Regulatory     Lack of proper transposition of EU regulation							
		Intergovernmental Agreements					
Agreement		Agreement Description	Is Signed	Agreement Signature Date			
Memorandum of Unders	standing	MoU between Estonia and Finland and LNG project promoters	Yes	28/02/2014			
Agreement between PM Finland	s of Estonia and	Agreement in regards to the gas infrastructure in the countries.	Yes	17/11/2014			

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	CBCA	Financial Assistance				
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision			
Submissin Date	10/08/2016	Grants for studies	Yes			
Decision Date	28/10/2016	Grants for studies amount	Mln EUR 137.0			
Website	<u>CBCA URL</u>	Grants for works	Yes			
Countries Affected	Estonia, Finland	Grants for works amount	Mln EUR 137.0			
Countries Net Cost Bearer		Intention to apply for CEF				
Additional Comments	No net cost bearers were identified	Other Financial Assistance	No			
		Comments				
			The CEE funding application was declined due to unclear			

General Comments

The CEF funding application was declined due to unclear situation with the temporary solution in Klaipeda and lack of clarity regarding the permanent solution.

LNG-A-962	Project	LNG Terminal	Non-FID				
Update Date	Date 15/08/2019						
Description	Conventional LNG import terminal (bunkering, break-bulk, on-grid and off-gr supply and serving commercial customers. The project includes 5x800 m3 pre 11 m), 2x100m3/h truck loading rack and connection to the low pressure natu covering about 60% of Estonian gas demand. And one to two flat bottom sto m3, with second connection to the berth (LOA 365m depth -17m) capable of (MOP 54 bar) national high pressure grid located about 13 km from the term 160 000 m3 with 4 bcma connection to the national high pressure grid. (grid	essurized bullets, connection to the existing bert ural gas distribution network located about 1 km orage tanks with the total LNG storage capacity of handling any size LNG carrier on the market, co inal site. Rail shunting tracks are 200m. Current s	n (LOA 198 m; depth - from terminal site, f 50 000 m3 to 320 000 nnection to DN711				
PRJ Code - PRJ Name							

capacity increments v					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Tallinn LNG	Liwathon E.O.S.	2022	LNG_Tk_EE	EE	121.00 GWh/d

Sponsors			General Information	NDP and PCI Information		
Liwathon E.O.S.	75%	Promoter	Liwathon E.O.S. AS / Port of Tallinn AS	Part of NDP	Yes (Eesti Gaasi Ülekandevõrgu arengukava 2018-2027.)	
Port of Tallinn	25%	Operator	Liwathon E.O.S.	NDP Number	Paragraph 3 point 7	
		Host Country	Estonia	NDP Release Date	03/03/2018	
		Status	Planned	NDP Website	<u>NDP URL</u>	
		Website	Project's URL	Currently PCI	No	
				Priority Corridor(s)	BEMIP	
		Website	<u>Project's URL</u>			

<b>Current TYNI</b>	<b>OP : TYNDP</b>	2020 -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		09/2012
Feasibility	02/2012	09/2012
FEED	01/2016	01/2020
Permitting	01/2012	03/2017
Supply Contracts		08/2021
FID		02/2020
Construction	04/2020	12/2022
Commissioning	2022	2022
Grant Obtention Date	06/02/2020	06/02/2020

Technical Information (LNG)								
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)	
Tallinn LNG	Yes Tallinn LNG	4.0 160,000	11.00	160,000	No comments	2022	50	

E 1.C.1		Cuitania
Fultil	lea	Criteria
i unn	ieu	Cifteria

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

	Delays since last TYNDP
Delay Since Last TYNDP	One to two years
Delay Explanation	The project is delayed because of the uncertainty and delay in other former LNG Terminal projects in the region, as this affects the project scope, feasibility, FEED and FID.

Expected Gas Sourcing

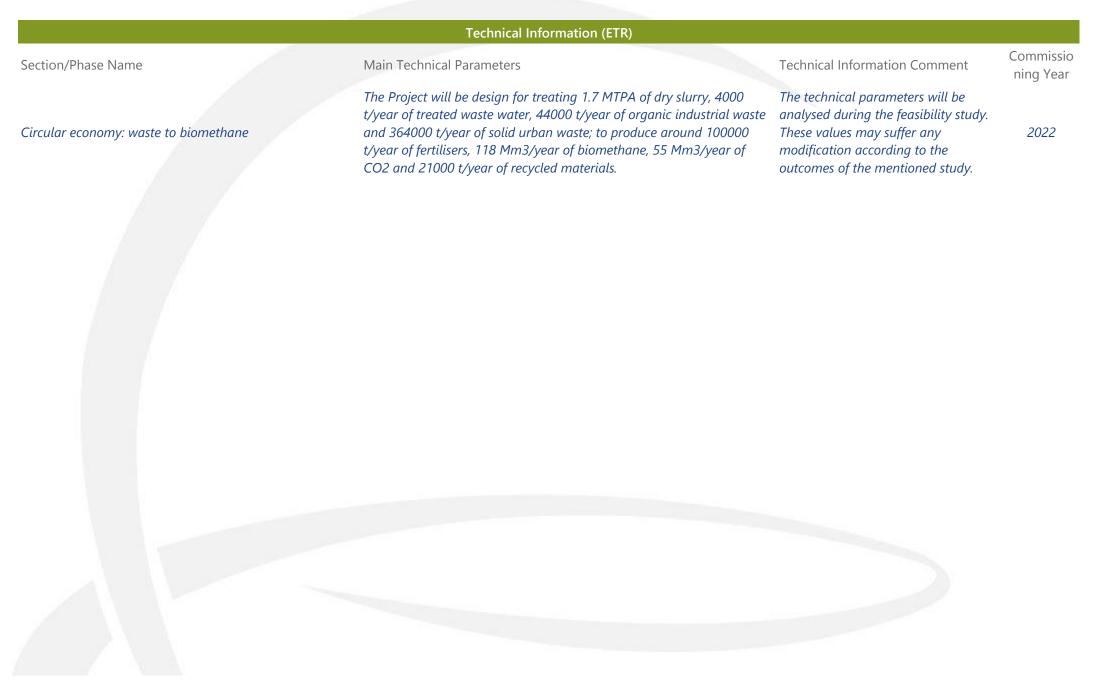
# LNG ()

	Benefits
Main Driver	Market Demand
Main Driver Explanation	- Market integration and diversification, SoS, market development, clean energy contributing to the fulfilment of Directive 2014/94/EC of the European Union - Synergies between energy supply and a alternative fuel in transport
Benefit Description	Reduces isolation and bottlenecks, interoperability, appropriate connections, diversification of sources, diversification of routes, sustainability.
	Barriers
Barrier Type	Description
Permit Granting	All permits for the construction phase have been granted
Political	None!
Others	The market interference which has been created by FSRU 'Independence' LNG vessel moored in Klaipeda harbor, Lithuania. With almost entire cost of the vessel being socialized over the Lithuanian gas consumer with any additional service provided by the vessel being largely underpriced; the vessel is negatively affecting other Baltic terminal developments. As other projects do not enjoy such heavy state funding and will therefore have to develop market-based commercially sound solutions in the region. A concrete example is FSRU 'Independence' re-gasification price, which is priced about 10-20 times lower than any other large LNG facility. We expect the European Competition authority to review the waiver provided in this respect, as the cost-base of this particular vessel largely exceeds 'normal' cost level of an onshore facility. Over 10y period, total lease cost of the vessel is in excess of Eur 600 million, that is equal to about two similar land-based terminals construction cost.
Regulatory	Low rate of return
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

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	CBCA		Financial Assistance	
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturia in Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF	Yes, for studies and works	
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer		Comments		
Additional Comments		General Comments	We prepared a CBA for the project related to the CEF requirements in 2018.	

			Circular eco	nomy: waste to biomethane		
ETR-N-921			Project		Energy Transition Related Project	Non-FID
Update Date				14/06/2020		Advanced
Description	environ sector. The pro	mental neutral project	t in order to integraterent residues gener	ansition project for biomethane injectic te the farming, agricultural, industrial an ated in the region for their conversion i jets on the recycling and landfill activitio	nd domestic residues coupling circular n biomethane energy and, in addition	economy with the gas
PRJ Code - PRJ Nan	ne -					
Comment						
Sponsors		100%		General Information		
Reganosa		100%	Promoter Operator	Reganosa		
			Host Country	Reganosa Spain		
			Status	Planned		
			Website	Project's URL		
Schedule	Start Date	End Date				
Pre-Feasibility		10/2020				
Feasibility	10/2020	06/2021				
FEED	06/2021	11/2021				
Permitting	11/2021	12/2021				
Supply Contracts		01/2021				
FID		01/2022				
Construction	02/2022	10/2022				
Commissioning	2022	2022				
Grant Obtention Date						



# CORE LNGas hive and LNGHIVE2 Infrastructure and logistic solutions

ETR-F-541	Project	Energy Transition Related Project	FID
Update Date	18/11/201	9	Advanced
Description	CORE LNGas hive project is part of institutional strategy to deploy market, is a step in the career of reduced emissions. Enagás is perf plants in the Iberian Peninsula, these adaptations are made to be a These modifications are part of the project CORE LNGas hive and I necessary adaptations to cover the early stages of pit aims at retro Also they englobes different works to improve the air quality and the equipment (crane, tugboat, vessel's energy supply in port) and the	forming the following activities: Coordination; adaptation of able to supply LNG small scales services and supply LNG as LNGHIVE2 Infrastructure and logistic solutions (hivelogs), v offitting an existing penetration of LNG as propulsion and a reduce contamination, especially in port domain, as using	of jetties in existing s marine fuel to ships. which aims to make the uxiliary fuel for vessels.
PRJ Code - PRJ Name	-		
Sponsors	General Informat	ion	
	Promoter Ena	gas Transporte S.A.U.	

Enagas Transporte S.A.U.	Promoter	
Enagas Transporte S.A.U.	Operator	
Spain	Host Country	
In Progress	Status	
<u>Project's URL</u>	Website	

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2014	03/2014
FEED	01/2015	10/2018
Permitting	06/2017	12/2018
Supply Contracts		04/2020
FID		01/2014
Construction	10/2017	03/2020
Commissioning	2020	2020
Grant Obtention		

Date



LNG-F-163	Project	LNG Terminal	FID
Ipdate Date	10/12/2019		Advanced
	A new regasification terminal in Gran Canaria (Arinaga).		
Description	A new regasification terminal in Gran Canaria (Arinaga). The start-up of the Gran Canaria LNG terminal is assumed to take place within the period is reported as the start-up date. This does not, however, constitute an est would already be justified by 2022.		

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Enagas Transporte S.A.U.	2029	LNG_Tk_ESc	ESc	41.90 GWh/d
Gran Canaria LNG	Gascan	2029	LNG_Tk_ESc	ESc	41.90 GWh/d

Sponsors		General Information	ND	P and PCI Information
Gascan 100%	Promoter	Gascan	Part of NDP	Yes (Planta de regasificación de Gran
	Operator	Enagas Transporte S.A.U.		Canaria)
	Host Country	Spain	NDP Number	No code in the NDP
	Status	Planned	NDP Release Date	01/05/2008
	Website		NDP Website	<u>NDP URL</u>
			Currently PCI	No
			Priority Corridor(s)	

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Schedule	Start Date	End Date	Third-Party Access
Feasibility		01/2008	Considered TPA Regime
oility	01/2008	01/2008	Considered Tariff Regime
			Applied for Exemption
ng			Exemption Granted
Contracts			
		05/2008	Exemption in entry direction
uction			Exemption in exit direction
nissioning	2029	2029	
Obtention			

		Technical Informa	nation (LN	IG)				
Regasification Facility	Reloading Ability Project Phase	Expected Increment Sł (bcm/y)	hip Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
Gran Canaria	Yes Gran Canaria	1.3 1	140,000	3,600,000.00	150,000	the commissioning year does not constitute an stimate of the start-up date	2029	100

**Delays since last TYNDP** 

#### Delay Since Last TYNDP

Delay Explanation

The start-up of the Gran Canaria LNG terminal is assumed to take place within the TYNDP period. For practical purposes, the last year of the ten-year period is reported as the start-up date. This does not, however, constitute an estimate of the start-up date. Based on demand estimates, the terminal would already be justified by 2022.

**Expected Gas Sourcing** 

## LNG ()

		Be	nefits	
Main Driver	Others			
Main Driver Explanation				
Benefit Description				

	CBCA	Finan	icial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culomissin Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer		Comments	
Additional Comments		General Comments	

Green Crane - Spain						
ETR-N-537	Project	Er	ergy Transition Re Project	elated N	on-FID	
Update Date	22/09/2020			Ac	lvanced	
Description	Green Crane is a joint initiative by Enagás and SNAM to deploy renewabl as well as export routes to NW and Central Europe. In Spain, it comprises latter foresees exporting green hydrogen to The Netherlands by using LC wind farms and will be used directly in industry and mobility projects. All gas grid (up to 2 or 5%).	the regional hubs o DHC's. The hydrogen	f Baleares, Aragon, Astu will be produced from	urias and Castilla y new dedicated so	León. The Dar PV and	
PRJ Code - PRJ Name	-					
Capacity Increments Varia	ant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Hydrogen (ES)	Enagas Transporte S.A.U.	2024	NPcES	ES	0.62 GWh/d	

Sponsors	General Information		
	Promoter	EnaGás Renovable S.L.U	
	Operator	EnaGás Renovable S.L.U	
	Host Country	Spain	
	Status	Planned	
	Website	Project's URL	

Schedule	Start Date	End Date
Pre-Feasibility		06/2019
Feasibility	06/2020	04/2021
FEED	04/2021	10/2022
Permitting	10/2021	04/2022
Supply Contracts		
FID		04/2022
Construction	04/2022	04/2024
Commissioning	2024	2024
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Green Crane	The project foresees up to 5 injection points. The aggregated RES capacity is 900 MW.		2024

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## Guitiriz - Lugo - Zamora pipeline

TRA-A-950	Project	Pipeline including CS	Non-FID
Update Date	17/12/2019		Advanced
	Construction of the Interconnector between Guitiriz, Lugo and Zamora, with	a length of 318 km and 30" diameter.	
Description	<ul> <li>The Guitiriz-Lugo-Zamora pipeline will guarantee the security of supply in t gas system presents, maximizing the contribution of all its inputs (i.e. send-South balance.</li> <li>Additionally, this pipeline is necessary to ensure the integration of the Muse capacities.</li> <li>In this sense, it will avoid the restrictions that will be imposed by the asturia essential to ensure the bidirectionality of the third interconnection with Por carry out the first section of the pipeline to guarantee the security of supply</li> </ul>	out extension of Mugardos LNG terminal) and imp el LNG terminal, the extension Mugardos LNG term in plant at the entrance from the Mugardos LNG Te tugal. This pipeline is divided in two sections, beca	ninal and VIP Iberico erminal. Likewise, it is
PRJ Code - PRJ Name	-		

			PP and PCI Information
Promoter	Reganosa	Part of NDP	Yes (PLANIFICACION ELECTRICIDAD Y GAS 2008-2016)
	spain	NDP Number	N/A.
Status	' Planned	NDP Release Date	01/05/2008
Website	<u>Project's URL</u>		NDP URL
		Currently PCI	No
		Priority Corridor(s)	
	Operator Host Country Status	OperatorReganosaHost CountrySpainStatusPlanned	OperatorReganosaHost CountrySpainStatusPlannedWebsiteProject's URLCurrently PCI

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Schedule	Start Date	End Date
Pre-Feasibility		12/2017
Feasibility	07/2017	12/2017
FEED	12/2017	01/2019
Permitting	10/2020	10/2021
Supply Contracts		
FID		10/2021
Construction	10/2021	01/2024
Commissioning	2024	2024
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Guitiriz-Lugo	The starting point will be the position of Guitiriz (I-013), owned by Reganosa, and the end point will be a new position in Lugo.	750	50	0	2022
Lugo-Zamora	The starting point will be the new posotion in Lugo and , owned by Reganosa, and the end point the compression station of Coreses (Zamora) owned by Enagás, S.A.	750	268	0	2024
	Total		318	0	

**Expected Gas Sourcing** 

Algeria, LNG (WO)

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	Ben	efits			
Main Driver	Regulation SoS				
Main Driver Explanation	The northwest of the Iberian Peninsula is suffering congestion, the Guitiriz-Lugo-Zamora will remove the existing congestion and en- security of supply in the Northwest. Therefore, Guitiriz-Lugo-Zam current congestions that the Spanish gas system presents, turning improving the North-South balance. Also, it is essential to ensure and the bidirectionality of the third interconnection with Portuga	hance the capacities of the future entries. ora pipeline will guarantee the security of so Spain into a real single balance area, max the integration of the Musel LNG terminal	At the same time, this pipeline will improve the supply in the Northwest area and eliminate the simizing the contribution of all its inputs and		
Benefit Description	This project is an "enabler" for the security of supply of the North Northwest area and eliminate the current congestions that the Sp The project will allow a secure supply to the CCGT located in the essential to ensure the integration of the Musel LNG terminal, the	anish gas system presents, turning Spain i Northwest of Iberian Peninsula. Market Inte	nto a real single balance area. Sustainability= egration and Competition= The project is		
	Bar	iers			
Barrier Type	Description				
Regulatory	Lack of proper transposition of EU regulation	Einer	icial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CE		
Decision	and we do not plan to submit it	Grants for studies	()) No, we have not applied for CL		
Submissin Date		Grants for studies amount	Mln EUR 0.		
Decision Date		Grants for works	N		
Website		Grants for works amount	Mln EUR 0.		
Countries Affected		Intention to apply for CEF	No decision yet take		
Countries Net Cost Bear	er	Other Financial Assistance	Ň		
Additional Comments		Comments			
		General Comments			

L2DG (LNG to Decarbonised Gas)							
ETR-N-483	Project	Energy Transition Related Project	Non-FID				
Update Date	17/12/2019		Advanced				
Description	Reganosa promotes for TYNDP2020 an energy transition project base injection which has the objective of achieving the decarbonisation of efficiency targets.						
PRJ Code - PRJ Name							

Sponsors			General	Information
Reganosa	1	100%	Promoter	Reganosa
1	, X		Operator	Reganosa
			Host Country	Spain
			Status	Planned
			Website	<u>Project's URL</u>
Schedule	Start Date	End Date		
Pre-Feasibility		07/2020		
Feasibility	08/2019	07/2020		
FEED	08/2020	06/2021		
Permitting	06/2021	06/2023		
Supply Contracts				
FID		06/2023		
Construction	06/2023	12/2024		
Commissioning	2024	2024		
Grant Obtention Date				
Date				

	Technical Information (ETR)		
ection/Phase Name	Main Technical Parameters	Technical Information Comment	Commiss ning Yea
2DG (LNG to Decarbonised gas)	The methane autothermal reforming plant will produce H2 in rate around 4 t/h. This capacity represents the 5% of the technical send-out capacity of Mugardos LNG terminal. The entry of the authothermal reforming plant will be the natural gas regasificated in the terminal and the H2 obtained will be injected in the natural gas grid owned by Reganosa. This new plant will be located in the existing installation of Mugardos LNG terminal.	analysed during the feasibility study.	2024

1 1

# Mugardos LNG Terminal: 2nd Jetty

LNG-A-296	Project	LNG Terminal	Non-FID
Update Date	17/12/201		Advanced
Description	Construction of a second jetty for berthing of LNG ship with capac	ty from approximately 1,000m3 LNG up to 266,000m3 LN	IG.
PRJ Code - PRJ Name	-		

Sponsors				General Information	NDF	P and PCI Information
Reganosa		100%	Promoter	Reganosa	Part of NDP	No ((6) others - please comment below)
			Operator	Reganosa	NDP Number	
			Host Country	Spain	NDP Release Date	
			Status	Planned	NDP Website	
			Website	Project's URL	Currently PCI	No
					Priority Corridor(s)	NSIW
Schedule	Start Date	End Date			Thirc	I-Party Access Regime
Pre-Feasibility		12/2015			Considered TPA Regir	ne <i>Regulated</i>
Feasibility	02/2015	12/2015			Considered Tariff Reg	ime Regulated
FEED	04/2016	06/2017			Applied for Exemption	א <i>No</i>
Permitting	04/2021	03/2022			Exemption Granted	Not Relevant
Supply Contracts						
FID		03/2022			Exemption in entry dir	rection 0.00%
Construction	06/2022	07/2024			Exemption in exit dire	ction 0.00%
Commissioning	2024	2024				
Grant Obtention Date						

Current TYNDP : TYNDP 2020 - Annex A

			Technical Info	rmation (LN	G)				
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Facto (%)
Mugardos LNG Termir	al Yes	2nd jetty	0.0	266,000	0.00	0	This new jetty of the Terminal will be able to operate with a range of vessels from 1,000 m3 to 266,000m3	2024	100
			Fulfilled	Criteria					
Specific Criteria Eulfill	Susta	inability, inter alia thr	ough reducing emissions, s	upporting ir	termittent rene	ewable generati	on and enhancing	deployment of r	enewable
Specific Criteria Fulfille	ed Susta gas	inability, inter alia thr	ough reducing emissions, s	upporting ir	termittent rene	ewable generati	on and enhancing	deployment of r	enewable
	gas	inability, inter alia thr	rough reducing emissions, s	upporting ir	termittent rene	ewable generati	on and enhancing	deployment of r	enewable
Specific Criteria Fulfillo Specific Criteria Fulfillo	gas	inability, inter alia thr	ough reducing emissions, s	upporting ir	termittent rene	ewable generati	on and enhancing	deployment of r	enewable
	gas	inability, inter alia thr	rough reducing emissions, s	upporting ir	termittent rene	ewable generati	on and enhancing	deployment of r	enewable
	gas	inability, inter alia thr	rough reducing emissions, s Expected G		termittent rene	ewable generati	on and enhancing	deployment of r	enewable
Specific Criteria Fulfille	gas	inability, inter alia thr			termittent rene	ewable generati	on and enhancing	deployment of r	enewable
	gas	inability, inter alia thr	Expected G	as Sourcing	termittent rene	ewable generati	on and enhancing	deployment of r	enewable
Specific Criteria Fulfille	gas	inability, inter alia thr	Expected G		termittent rene	ewable generati	on and enhancing	deployment of r	enewable
Specific Criteria Fulfille	gas	inability, inter alia thr	Expected G	as Sourcing	termittent rene	ewable generati	on and enhancing	deployment of r	enewable
Specific Criteria Fulfille	ed gas ed Comments Market Demand	inability, inter alia thr	Expected G	as Sourcing	termittent rene	ewable generati	on and enhancing	deployment of r	enewable
Specific Criteria Fulfille LNG (WO) Main Driver	gas ed Comments Market Demand m The second jetty new operational satellite Terminal	of the Terminal will e requirements derived s in nearby ports and	Expected G	as Sourcing efits naximize fle of LNG as fu will guarante	xibility and to c el in maritime t ee the availabili	complete the inf ransport for bot ty of the Termin	rastructures offere th ships navigating al to carry out the	ed that could resp the Atlantic corr	oond to the ridor and
Specific Criteria Fulfille LNG (WO) Main Driver Main Driver Explanatio	gas ed Comments Market Demand m The second jetty new operational satellite Terminal	of the Terminal will e requirements derived s in nearby ports and	Expected G Ben enable the Port of Ferrol to r I from the implementation of I coasts. Apart from that, it v	as Sourcing efits maximize fle of LNG as fu will guarante located to t	xibility and to c el in maritime t ee the availabili	complete the inf ransport for bot ty of the Termin	rastructures offere th ships navigating al to carry out the	ed that could resp the Atlantic corr	oond to the ridor and
Specific Criteria Fulfille LNG (WO) Main Driver Main Driver Explanatio Benefit Description	gas ed Comments Market Demand m The second jetty new operational satellite Terminal	of the Terminal will e requirements derived s in nearby ports and	Expected G Expected G Ben enable the Port of Ferrol to r I from the implementation of I coasts. Apart from that, it w Augardos terminal is ideally	as Sourcing efits maximize fle of LNG as fu will guarante located to t	xibility and to c el in maritime t ee the availabili	complete the inf ransport for bot ty of the Termin	rastructures offere th ships navigating al to carry out the	ed that could resp the Atlantic corr	oond to the idor and
Specific Criteria Fulfille LNG (WO) Main Driver Main Driver Explanatio	gas ed Comments Market Demand The second jetty new operational satellite Terminal loading and unlo	of the Terminal will e requirements derived s in nearby ports and ading vessels. Also, N	Expected G Expected G Ben enable the Port of Ferrol to r I from the implementation of I coasts. Apart from that, it w Augardos terminal is ideally	as Sourcing efits maximize fle of LNG as fu will guarante located to t	xibility and to c el in maritime t ee the availabili	complete the inf ransport for bot ty of the Termin	rastructures offere th ships navigating al to carry out the	ed that could resp the Atlantic corr	oond to the idor and

	CBCA	Financ	ial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

## Mugardos LNG Terminal: Send-out Increase

LNG-A-295		Project			LNG Termina	1 1	Non-FID
Update Date		17/12/2019				Nor	-Advanced
	The project aims to expand th	ne LNG terminal capacity from 9,9 mcm/	d to 19,8 mcm/d	through	n the construction of	new Open Rack V	aporizers.
Description	in gas transport, promoting th	ut capacity will enable to balance the No ne approach of emission points to consu e, it will reinforce the security of supply th the rest of Spain.	imption points an	d gene	rating efficiencies th	ough of the lower	use of
PRJ Code - PRJ Name	-						
Capacity Increments Varia	ant For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Mugardos		Reganosa		2024	LNG_Tk_ESa	ES	115.00 GWh/d
Widgardos		Reganosa (LSO)		2024	LNG_Tk_ESa	ES	115.00 GWh/d
Sponsors		General Information			NDP and	PCI Information	
Reganosa	100%	Promoter	Reganosa	Part c	of NDP Yes	(PLANIFICACION	
		Operator	Reganosa				GAS 2008-2016
		Host Country	Spain			Number- Name: A Reganosa. Ampliac	
		Status	Planned	NDF	Number de	regunosa. Ampilac	825,600 Nm3/l
		Website	<u>Project's URL</u>	NDP	Release Date		01/05/2008
				NDP	Website		NDP UR
				Curre	ntly PCI		Ne
				Priori	ty Corridor(s)		

Current TYNDP : TYNDP 2020 - Annex A	Current TYNDP : TYNDP 2020 - Annex A
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Schedule	Start Date	End Date		Third-Party Access R
Pre-Feasibility		02/2018		Considered TPA Regime
Feasibility	04/2017	02/2018		Considered Tariff Regime
FEED	11/2018	02/2020		Applied for Exemption
Permitting	06/2020	05/2021		Exemption Granted
Supply Contracts				
FID		05/2021		Exemption in entry direction
Construction	09/2021	03/2024		Exemption in exit direction
Commissioning	2024	2024		
Grant Obtention				
Date				

			Technical Infor	mation (LN	G)				
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
Mugardos LNG Terminal	Yes	Send-out	3.6	0	9.90	0	This expansion will mean an increase in send-out capacity until to 825,600 Nm3/h, meaning, twice the current		100
LNG (WO)			Expected Ga	s Sourcing			capacity.		

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	Ben	efits	
Main Driver	Market Demand		
Main Driver Explanation	The expansion of the send-out capacity will enable to balance the transport, promoting the approach of emission points to consum stations. Likewise, it will reinforce the security of supply by buildin comparable with the rest of Spain.	ption points and generating efficiencies the	rough of the lower use of compression
Benefit Description	SoS= The project it will reinforce the security of supply allowing to Sustainability= The project will enable to balance the North-Sout and generating efficiencies through of the lower use of compress	h capacities of the Spanish gas system inpu	
	Barı	iers	
Barrier Type	Description		
Regulatory	Capacity quotas		
Market	Lack of market maturity		
	CBCA	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CE
	and we do not plan to submit it	Grants for studies	٨
Submissin Date		Grants for studies amount	Mln EUR 0
Decision Date		Grants for works	٨
Website		Grants for works amount	Mln EUR 0
Countries Affected		Intention to apply for CEF	No decision yet take
Countries Net Cost Bear	er	Other Financial Assistance	٨
Additional Comments		Comments	
		General Comments	

## Mugardos LNG Terminal: Storage Extension

LNG-N-297	Project		LNG Terminal	Non-FID
Update Date		17/12/2019		Advanced
Description	Construction of an additional storage tank with capacit	ty of one hundred ninety tho	usand cubic meters of LNG.	
PRJ Code - PRJ Name	- /			

d PCI Information	NDP	ation	General Inf			Sponsors
((6) others - please comment belo	Part of NDP	Reganosa	Promoter	100%		Reganosa
	NDP Number	Reganosa	Operator		1	
	NDP Release Date	Spain	Host Country			
	NDP Website	Planned	Status			
I	Currently PCI	<u>Project's URL</u>	Website			
	Priority Corridor(s)					
rty Access Regime	Third			End Date	Start Date	Schedule
Regulat	Considered TPA Regim			12/2015		Pre-Feasibility
Regulat	Considered Tariff Regin			12/2015	02/2015	Feasibility
Ι	Applied for Exemption			11/2017	08/2016	FEED
Not Releva	Exemption Granted			02/2024	02/2023	Permitting
						Supply Contracts
on 0.00	Exemption in entry dire			02/2024		FID
n 0.00	Exemption in exit direc			01/2028	05/2024	Construction
				2026	2026	Commissioning
						Grant Obtention Date

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		Technical Info	rmation (LN	IG)				
Regasification Facility	Reloading Ability Project Phas	e Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	J Load Facto (%)
Mugardos LNG Termina	l Yes Storage	0.0	0	0.00	190,000	This new Terminal tank will have a storage capacity of 190,000 m3, increasing the total capacity of the terminal to 490,000 m3.	2026	100
		Fundational C						
		Expected G	as Sourcing					
LNG (WO)		Expected G	as Sourcing					
LNG (WO)		Expected G Ben						
LNG (WO) Main Driver	Market Demand							
	The third tank of the Terminal v m3) and Q-max (266,000 m3). L	Ben vill enable the inclusion of the nor ikewise, it will convert the Termina pairs in shipyards, construction of	efits thwest of the al in a real LI	NG hub. Addit	ionally, synerget	c effects could be	created between	n the naval
Main Driver	The third tank of the Terminal w m3) and Q-max (266,000 m3). L and fishing sector in Galicia (re the of the use of LNG as maritin	Ben vill enable the inclusion of the nor ikewise, it will convert the Termina pairs in shipyards, construction of	efits thwest of the al in a real LI new ships, e	NG hub. Addit tc.) and it will	ionally, synerget	c effects could be	created between	n the naval
Main Driver Main Driver Explanation	The third tank of the Terminal w m3) and Q-max (266,000 m3). L and fishing sector in Galicia (re the of the use of LNG as maritin	Ben vill enable the inclusion of the nor ikewise, it will convert the Termina pairs in shipyards, construction of me fuel. cated to take advantage of the US	efits thwest of the al in a real LI new ships, e	NG hub. Addit tc.) and it will	ionally, synerget	c effects could be	created between	n the naval
Main Driver Main Driver Explanation	The third tank of the Terminal w m3) and Q-max (266,000 m3). L and fishing sector in Galicia (re the of the use of LNG as maritin	Ben vill enable the inclusion of the nor ikewise, it will convert the Termina pairs in shipyards, construction of me fuel. cated to take advantage of the US	efits thwest of the al in a real LI new ships, e FOB volume	NG hub. Addit tc.) and it will	ionally, synerget	c effects could be	created between	n the naval
Main Driver Main Driver Explanation Benefit Description	The third tank of the Terminal w m3) and Q-max (266,000 m3). L and fishing sector in Galicia (rep the of the use of LNG as maritin Mugardos terminal is ideally loo	Ben vill enable the inclusion of the nor ikewise, it will convert the Termina pairs in shipyards, construction of me fuel. cated to take advantage of the US	efits thwest of the al in a real LI new ships, e FOB volume	NG hub. Addit tc.) and it will	ionally, synerget	c effects could be	created between	n the naval
Main Driver Main Driver Explanation Benefit Description <b>Barrier Type</b>	The third tank of the Terminal w m3) and Q-max (266,000 m3). L and fishing sector in Galicia (rep the of the use of LNG as maritin Mugardos terminal is ideally loo Description	Ben vill enable the inclusion of the nor ikewise, it will convert the Termina pairs in shipyards, construction of me fuel. cated to take advantage of the US	efits thwest of the al in a real LI new ships, e FOB volume	NG hub. Addit tc.) and it will	ionally, synerget	c effects could be	created between	n the naval

СВСА	Financ	ial Assistance
No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
and we do not plan to submit it	Grants for studies	No
	Grants for studies amount	Mln EUR 0.0
	Grants for works	No
	Grants for works amount	Mln EUR 0.0
	Intention to apply for CEF	No decision yet taken
	Other Financial Assistance	No
	Comments	
	General Comments	
		No, we have not submitted an investment request yet, and we do not plan to submit it Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works Grants for works amount Intention to apply for CEF Other Financial Assistance Comments

.NG-F-178	Project	LNG Terminal	FID
Update Date	18/11/2019		Advancec
	A LNG terminal in Musel (North of Spain). The Construction of the "El Musel" LNG terminal was completed in 2012, but it has	not been commissioned yet. The termina	al is pending start-u
Description	authorization by the government according to Royal Decree-Law 13/2012. Enagás	Transporte expects to get the start-up a	uthorization by 202

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Enagas Transporte S.A.U.	2021	LNG_Tk_ESa	ES	0.00 GWh/d
Musel	Comment: The construction of the not been commissioned yet. The ter according to Royal Decree-Lu This LNG terminal has four sea m3(n)/h, which could be connected to	minal is pending st aw 13/2012. Enag awater vaporisers v	art-up authorization b ás Transporte expects auth vith a total send-out co me during the TYNDP	by the government to get the start-up porization by 2021. apacity of 800.000	

Enagas Transporte S.A.U. Enagas Transporte S.A.U. Spain Planned	NDP Number	Yes (planta de regasificación de El Musel) No code in the NDP 01/05/2008
Spain	NDP Number	No code in the NDP
Diannad	NDP Release Date	01/05/2008
Plumeu	Herease bate	01/03/2006
	NDP Website	NDP URL
	Currently PCI	No
	Priority Corridor(s)	
	Plannea	NDP Website Currently PCI

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Schedule	Start Date	End Date
Pre-Feasibility		01/2008
Feasibility	01/2008	01/2008
FEED		
Permitting		
Supply Contracts		
FID		05/2008
Construction		
Commissioning	2021	2021
Grant Obtention		
Date		

Technical Information (LNG)								
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning L Year	oad Factor (%)	
Musel	Yes El Musel	0.0 266,000	0.00	300,000	See additional comments	2021	100	

	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	Construction has been completed and Enagás Transporte expects to get the start-up authorization by 2021

**Expected Gas Sourcing** 

LNG ()

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		Benefits
Main Driver	Others	
Main Driver Explanation	on	

Benefit Description

	CBCA	Finan	cial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CE
Decision	and we have not yet decided whether we will submit or	Grants for studies	٨
Submissin Date	not	Grants for studies amount	Mln EUR 0.
		Grants for works	٨
Decision Date		Grants for works amount	Mln EUR 0.
Website		Intention to apply for CEF	
Countries Affected		Other Financial Assistance	Λ
Countries Net Cost Bearer		Comments	
Additional Comments		General Comments	

## P2G integrated in Reganosa NG Transmission Grid

ETR-N-427	Project		Energy Transition Related Project	Non-FID
Update Date	17,	/12/2019		Advanced
which has the object		newables with the NG grid, the	n of P2G technologies in Reganosa NG e achievement of decarbonisation and	
Sponsors	General In			
Reganosa	100% Promoter	Reganosa		
	Operator	Reganosa		
	Host Country	Spain		
	Status	Planned		
	Website	<u>Project's URL</u>		
Schedule Start Date End Date				

Schedule	Start Date	End Date
Pre-Feasibility		06/2020
Feasibility	10/2019	06/2020
FEED	08/2020	06/2021
Permitting	06/2021	06/2023
Supply Contracts		
FID		06/2023
Construction	06/2023	12/2024
Commissioning	2024	2024
Grant Obtention		
Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commission ning Year
P2G integrated in Reganosa NG Transmission Grid	Renewable energy generation (Photo Voltaic &/or Wind Power) of 100 MW to be installed, producing H2 in a rate around 2 t/h. The project will be located in an area where a coal power station was installed. Therefore, both, a NG pipeline and a High Voltage infrastructure is already in place to be immediately used, being a perfect point of injection for the H2 produced and also an optimal point to be powered supply, if this be the case. Existent high pressure (#600) pipeline is 16 inch.	The technical parameters will be analysed during the feasibility study. These values may suffer any modification according to the outcomes of the mentioned study.	2024

# Railway project roadmap. Transformation to LNG

ETR-F-632	Project	Energy Transition Related Project	FID
Update Date	18/11/2019		Advanced
Description	Automotive Pilot of passengers consists of the development of the necess passengers with LNG in the vicinities of Asturias and the tests of the same Project raiLNG is developed by the consortium (RENFE, Enagás, Naturgy a to generate the hybrid Diesel/GNL tractor composition. The resulting com the same service conditions Project to transform locomotives from manoeuvres to LNG that currently LNGhive2: transformation of a heavy haul locomotive in the Huelva-Sevill Project of R+D+ì to promote disruptive technologies and alternatives to to current platform	e one for its extrapolation to commercial lines, 4 unit and Bureau Veritas) consists of the transformation of aposition will establish a comparison of performance use diesel fuel in port areas, 6 S310 units. a corridor. The integral project will include a gas stat	ts the S1600 locomotive between the two in tion
PRJ Code - PRJ Name	-		

Sponsors	General Information			
	Promoter	Enagas Transporte S.A.U.		
	Operator	Enagas Transporte S.A.U.		
	Host Country	Spain		
	Status	In Progress		
	Website			

Schedule	Start Date	End Date
Pre-Feasibility		06/2016
Feasibility	06/2019	01/2020
FEED	01/2020	01/2020
Permitting	01/2020	01/2020
Supply Contracts		
FID		01/2016
Construction	09/2019	01/2022
Commissioning	2022	2022
Grant Obtention Date		

TR-N-504		Project		En	ergy Transition R Project	elated N	on-FID	
Jpdate Date			23/06/2020			Ac	Advanced	
Description	This project is considering the photoelectrochemical electro	e production of green plysis and its use in ind	drogen injection into the gas grid. hydrogen by PEC technologies. Th ustrial and transport applications. production and the real case appli	The pref	easibility study, that is			
PRJ Code - PRJ Name	•							
Capacity Increments Varia	nt For Modelling	Operator		Year	From Gas System	To Gas System	Capacity	
Hydrogen (ES)			sporte S.A.U.	2024	NPcES	ES	0.06 GWh	
Sponsors		Ge	neral Information					
		Promoter	EnaGás Renovable S.L.	J				
		Operator	EnaGás Renovable S.L.U	J				
		Host Country	Spai	า				
		Status	Planne	d				
		Website						

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Schedule	Start Date	End Date
Pre-Feasibility		12/2018
Feasibility	01/2019	12/2020
FEED	01/2021	12/2021
Permitting	09/2021	01/2022
Supply Contracts		
FID		
Construction	01/2022	12/2024
Commissioning	2024	2024
Grant Obtention		
Date		

	Ter	nerife LNG Terminal				
	Project			LNG Termina		FID
		18/11/2019			A	dvanced
project consists in a new	regasification Termin	nal in Tenerife (Arico-Granadilla, Sj	oain), in t	he Canary Islands.		
lodelling						
	Operator		Year	From Gas System	To Gas System	Capacity
	Enagas Trai	nsporte S.A.U.	2022	LNG_Tk_ESc	ESc	41.90 GWh/
	Gascan		2022	LNG_Tk_ESc	ESc	41.90 GWh/
	G	eneral Information		NDP and	PCI Information	
100%	Promoter		Part	of NDP	Yes (Planta de l	-
		• •	NDD	Numbor	No	Tenero code in the N
	-				NO	01/05/20
		Plann	eu			<u>NDP L</u>
	Website					<u>1107 0</u>
				, ,		
			11101			
	lodelling	Project project consists in a new regasification Termin odelling Operator Enagas Trai Gascan	Project 18/11/2019 project consists in a new regasification Terminal in Tenerife (Arico-Granadilla, Sp odelling Operator Enagas Transporte S.A.U. Gascan General Information 100% Promoter Gasc Operator Host Country Spac Status Plann	Project         18/11/2019         project consists in a new regasification Terminal in Tenerife (Arico-Granadilla, Spain), in t         lodelling         Operator         Year         Enagas Transporte S.A.U.       2022         Gascan       2022         Gascan       2022         Operator       Enagas Transporte S.A.U.         100%       Promoter       Gascan         0perator       Enagas Transporte S.A.U.       2022         Gascan       2022       Operator         100%       Promoter       Gascan         100%       Status       Planned         Website       NDF       NDF         Curr       Curr       NDF	Project       LNG Terminal         18/11/2019       project consists in a new regasification Terminal in Tenerife (Arico-Granadilla, Spain), in the Canary Islands.         odelling       Operator       Year       From Gas System         Enagas Transporte S.A.U.       2022       LNG_Tk_ESc         Gascan       2022       LNG_Tk_ESc         100%       Promoter       Gascan       Part of NDP         100%       Promoter       Gascan       Part of NDP         100%       Promoter       Gascan       NDP Number         NDP Release Date       NDP Release Date       NDP Number         Status       Planned       NDP Number       NDP Number	Project       LNG Terminal         18/11/2019       A         project consists in a new regasification Terminal in Tenerife (Arico-Granadilla, Spain), in the Canary Islands.       A         iodelling       Operator       Year       From Gas System       To Gas System         Enagas Transporte S.A.U.       2022       LNG_Tk_ESc       ESc         Gascan       2022       LNG_Tk_ESc       ESc         100%       Promoter       Gascan       Part of NDP and PCI Information         100%       Promoter       Gascan       Part of NDP       Yes (Planta de Part of NDP         100%       Promoter       Enagas Transporte S.A.U.       NDP Number       No         100%       Promoter       Gascan       NDP Number       No         Status       Planned       NDP Number       No         Website       NDP Website       Currently PCI       Currently PCI

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Schedule	Start Date     End Date     Third-Party Access Reg       01/2008     Considered TPA Regime	
Pre-Feasibility		01/2008
Feasibility	01/2008	01/2008
FEED		
Permitting		
Supply Contracts		
FID		05/2008
Construction		
Commissioning	2022	2022
Grant Obtention		
Date		

	Technical Information (LNG)						
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Loa Year	d Factor (%)
Tenerife LNG Terminal	Yes Tenerife LNG	1.3 140,000	3,600,000.00	150,000	No addittional comments	2022	100

	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	The design of this LNG terminal is currently under review, and therefore the specifications of the final project could differ from the one reported
	Expected Gas Sourcing
LNG ()	
LING ()	

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		Benefits	
Main Driver	Others		
Main Driver Explana	ation		

Benefit Description

	CBCA	Finan	cial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CE
Decision	and we have not yet decided whether we will submit or	Grants for studies	٨
Submissin Date	not	Grants for studies amount	Mln EUR 0.
		Grants for works	٨
Decision Date		Grants for works amount	Mln EUR 0.
Website		Intention to apply for CEF	
Countries Affected		Other Financial Assistance	Λ
Countries Net Cost Bearer		Comments	
Additional Comments		General Comments	

TRA-A-429	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	The L-gas area covers around 10% of French gas consumption. It depends on the annual basis. Additional flexibility is ensured by Gournay UGS and peak H-to-L cor Due to the decline of L-gas production the conversion of the whole French L-gas The project covers both the required infrastructure to ensure access to H-gas sup coordinated with Belgian and Dutch operators.	nversion facility at Loon-Plage. area will have to be achieved by the end of	f 2029.
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Blaregnies L (BE) / Taisnières B (FR)	GRTgaz	2025	BEI	FRnL	-115.00 GWh/d

Sponsors			General Information	NDP and PCI Information		
Storage		Promoter	GRTgaz and Storengy	Part of NDP	Yes (Plan décennal de développement	
Storengy	5%	Operator	GRTgaz		du réseau de GRTgaz 2018-2027)	
Transmission		Host Country	France	NDP Number	Plan de conversion du gaz B en gaz H	
	95%	Status	Planned	NDP Release Date	04/02/2019	
GRTgaz	93%	Website	Project's URL	NDP Website	<u>NDP URL</u>	
				Currently PCI	Yes (5.21 (2020))	

Priority Corridor(s)

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				0		
Schedule	dule Start Date End Date		Third-Party Access Re	Third-Party Access Regime		
Pre-Feasibility		09/2016	Considered TPA Regime	Regula		
Feasibility	06/2014	09/2016	Considered Tariff Regime	Regula		
FEED	09/2015	09/2020	Applied for Exemption			
Permitting	11/2016	12/2026	Exemption Granted	Not Relev		
Supply Contracts						
FID		06/2016	Exemption in entry direction	0.0		
Construction	04/2017	12/2026	Exemption in exit direction	0.0		
Commissioning	2025	2025				
Grant Obtention						
Date						

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Arleux interconnection station	Adaptation				0
Bethune area	New pipeline	300	8		0
Brouckerque area	New pipeline	200	2		0
Connection to H-gas grid	Gravelines, Diéval, Isbergues, Orchies, Beaurevoir Caulaincourt and Nesle	r,			0
Interconnection with Gournay UGS	Adaptation				0
Taisnieres interconnection station	Adaptation				0
	Total		10		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	The project will ensure that gas consumers of the former L-gas area will benefit from the same competitive and secured supply as H-gas consumers. security of supply: without this project, the energy demand cannot be covered as soon as 2021. Thr security of supply will be brought up to the level already reached in North Westerne Europe competition and market integaration: diversity on the L-gas area will reach the same level as the North West Region

	Expected Gas Sourcing
Algeria, Caspian Reg	ion, Libya, Norway, Russia, LNG ()
	Benefits
Main Driver	Others
Main Driver Explanat	ion Decline of L-gas production in the Netherlands with supply contracts ending on 2029 for France and Belgium notwithstanding earlier termination date.
Benefit Description	Currently the L-gas area across France, Belgium and Germany is similar to a gas island connected to a single source. Through the conversion of the area to H-gas, the project is part of set of new regional infrastructures enabling market participants and consumers to take benefit from competitive and secured

supply as the rest of North-West Europe.

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date	04/10/2018	Grants for studies amount	Mln EUR 0.0
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Belgium, France	Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer	Belgium;#France	Intention to apply for CEF	No decision yet taken
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

# Biomethane: connection of production units and reverse flow projects

ETR-F-728	Project	En	ergy Transition Re Project	elated	FID
Update Date	04/08/2020			Ac	dvanced
Description	The scattered production of renewable gas will take an increasing part in the this production units to the transmission network. Backhaul facilities will also to the transmission grid when the biomethane injected locally exceeds local of biomethane injected into the gas system and reach national target for ren connection projects per year (around 30 completed by 2030) for an estimate	be needed to all demand. These n newable gas (10% d production of 3	ow biomethane injecte etwork adaptations wil of gas consumption in	ed in the distribution Il enable to maxim n 2030). Teréga exp	on to flow bacl nize the volume pects 3
PRJ Code - PRJ Name Gapacity Increments Variar	(around 4 completed by 2030) for an estimated reverse flow of 0,4 TWh/year -	·.			
PRJ Code - PRJ Name Capacity Increments Variar Point	-	Year	From Gas System	To Gas System	Capacity
Capacity Increments Variar	- : For Modelling		From Gas System NPcFRt	To Gas System FR	Capacity 3.00 GWh/d

Sponsors		General Information	
Backhaul facilities		Promoter	Teréga
Teréga	100%	Operator	TERÉGA
Biomethane units connection to grid		Host Country	France
Teréga	100%	Status	Planned
		Website	

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2030	2030
Grant Obtention		
Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Backhaul facilities	Facilities adjustments (compressor power, metering) at the connection point between the distribution and the transmission grids		2030
Biomethane units connection to grid	Connection of biomethane production units		2030
	Delays since last TYNDP		
Delay Since Last TYNDP			
Delay Explanation N/A			

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## Fos Tonkin LNG Terminal Evolution

ETR-N-226	Project	Energy Transition Related Project	Non-FID
Update Date	15/08/2019		Advanced
Description	The project aims to adapt the Fos Tonkin LNG terminal into a small scale L clients in France, the neighbouring countries and beyond. It shall, in particle circumstances. Thus, the project will doubly contribute to the energy transition: 1) it will contribute to the development of the use of LNG as an alternative 2) it will prevent any CO2 emission on the small scale LNG terminal where	ular, allow the terminal to being able to operate with fuel much cleaner and less CO2-emitting than oil-b	out any flaring in all ased products, and
PRJ Code - PRJ Name	-		

Sponsors			General Information
Elengy	100%	Promoter	Elengy
		Operator	Elengy
		Host Country	France
		Status	Planned
		Website	Project's URL

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		07/2020
Construction	07/2020	07/2022
Commissioning	2022	2022
Grant Obtention Date		

			Technical Infor	mation (LN	G)				
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
	No						see below	2022	0

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				HyGéo		
ETR-N-901			Project		Energy Transition Related Project	Non-FID
Update Date				15/07/2020		Advanced
Description	installation or providing a s	f electrolysis unit	s to transform renewable of electricity (P2P), as we	e electricity into hydrogen (P2H2).	the form of the green hydrogen (H2) The project will offer flexibility to the e for direct consumption or for injection pocietal aspects is in progress.	electricity grid,
PRJ Code - PRJ Name	•					
Sponsors			Gene	ral Information		
HDF	1	46%	Promoter	Teréga		
Teréga		40%	Operator	TERÉGA -		
BRGM		14%	Host Country	France		
			Status Website	Planned		
Schedule S	tart Date Er	nd Date				
Pre-Feasibility		04/2021				
Feasibility		- ,				
FEED						
Permitting						
Supply Contracts						
FID						
Construction	2024	2024				
Commissioning Grant Obtention	2024	2024				
Date						

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissic ning Year
One phase project	Storage capacity of 1,5 GWh		2024

ETR-F-743	Project	Energy Transition Related Project	FID
Jpdate Date	12/06/2020		Advanced
Description	Phase 1 (2019-2022): development of a model and optimization tool to ider technological components will be studied and meaningful or priority design Phase 2 (2022-2025): study of the operational feasibility to confirm estimate the demonstrator through the implementation of the technological compor	n studies will be conducted; ed gains. Several partners are associated. This phas	

Point	Operator	Year	From Gas System	To Gas System	Capacity
	TERÉGA	2025	NPcFRt	FR	0.00 GWh/d
Production France PEG TIGF	Comment: 0 indicated beca	use numbers are confident	ial and, in any case, v	ery marginal (way	
			lowe	er than 0,1 GWh/d)	

Sponsors			General Information
Teréga + Others (confidential)	100%	Promoter	Teréga
		Operator	TERÉGA
		Host Country	France
		Status	Planned
		Website	<u>Project's URL</u>

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	07/2019	07/2022
FEED		
Permitting		
Supply Contracts		
FID		07/2019
Construction		
Commissioning	2025	2025
Grant Obtention		
Date		

	Technical Information (ETR)	
Section/Phase Name	Main Technical Parameters Technical Information Comment	Commissio ning Year
Impulse - Pilot Phase	building an optimization and modelling tool relying on different technologies (P2G, P2H) and designs	2022
Impulse - Operational phase	Building and connecting a facility to demonstrate the operational and industrial feasibility of such projects	2025
Delay Since Last TVNDD	Delays since last TYNDP	
Delay Since Last TYNDP		
Delay Explanation	N/A	

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# Jupiter 1000: first industrial demonstrator of Power to Gas in France

ETR-F-546	TR-F-546		Project		ergy Transition R Project	elated	FID	
Update Date			02/06/2020			A	dvanced	
Description	The Jupiter 1000 project is the first industrial demonstrator of Power to Gas with a power rating of 1 MWe for electrolysis and a methanation process with carbon capture. Green hydrogen will be produced using two electrolysers involving different technologies, from 100% renewable energy. The installation will be based on an innovative methanation technology and CO2 will be captured on a nearby industrial site. In the light of the performance levels shown by the demonstrator, GRTgaz and its partners will work on future technical and economic standards of a full-sized installation of this type. Over the longer term, the idea is to launch the Power to Gas activity in France. More than 15 TWh of gas could be produced each year using the Power to Gas system by 2050.							
PRJ Code - PRJ Name Capacity Increments Varia	- nt For Modelling							
Point		Operator		Year	From Gas System	To Gas System	Capacity	
Forecast Production France	e GRTgaz	GRTgaz		2020	NPcFRg	FR	0.01 GWh/d	
Sponsors		Gen	eral Information					
CO2 capture and electroly	zer	Promoter	GRTgaz, Terego	1				
LLT, GPMM, CNR, McPhy	15%	Operator	GRTgaz	2				
expertise		Host Country	France	?				
Terega	15%	Status	In Progress	5				
global conception and con	nstruction	Website	<u>Project's URI</u>	<u>-</u>				

methanation unit

Atmostat

CEA

GRTgaz

tests and technical economicl modelling

7%

59%

15%

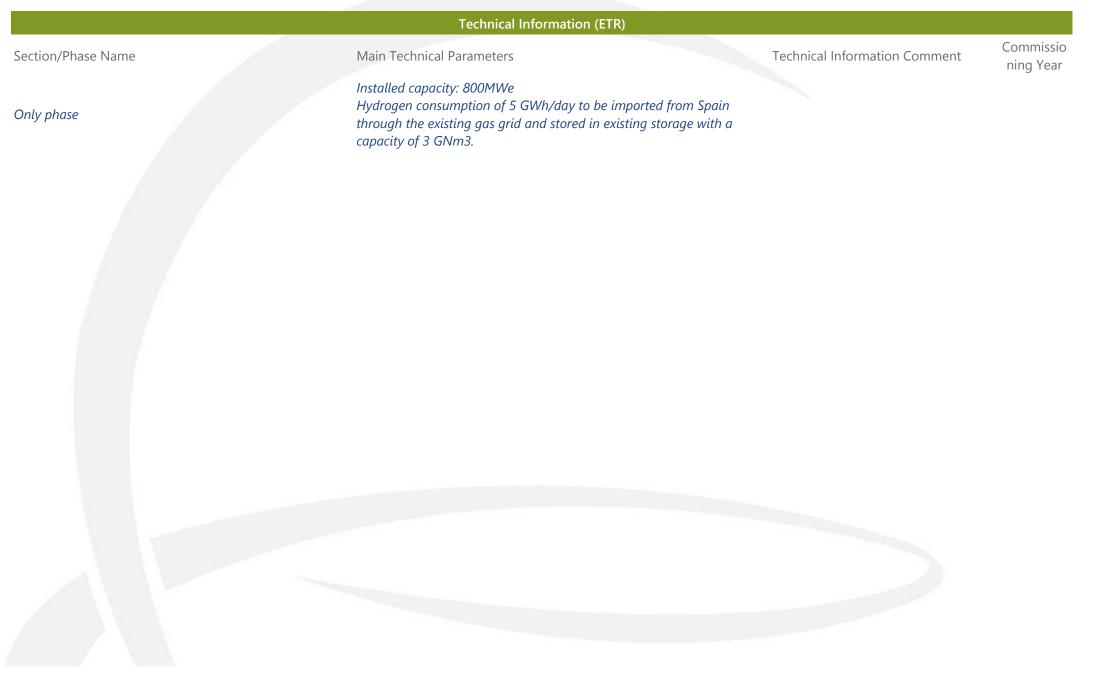
Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2014	01/2016
FEED		
Permitting	01/2016	06/2017
Supply Contracts		
FID		04/2016
Construction	06/2017	06/2020
Commissioning	2020	2020
Grant Obtention		
Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Jupiter 1000	a power rating of 1 MWe for electrolysis and a methanation process with carbon capture. Green hydrogen will be produced using two electrolysers involving different technologies, from 100% renewable energy.		2020

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Lacq Hydrogen							
ETR-N-942		Project		Energy Transition Related Project	Non-FID		
Update Date		14/09/2	020		Advanced		
Description	and its SW Region. The hydrogen is expected to natural gas or pure) to France	be produced in Spain, sourced fror	n the electrolysis of wind stored in the existing gas	ce, providing fully dispatchable greer and solar power. It will be then trans infrastructure. At the Lacq Hydroger	ported (blended with		
PRJ Code - PRJ Name	· .						
Sponsors		General Inform					
Gazel Energie	50%	Promoter	Teréga				
Teréga	50%	Operator	TERÉGA				
Soladvent (coordinator)	0%	Host Country	France				
	070	Status	Planned				
		Website					
Schedule Start	Date End Date						
Pre-Feasibility	06/2020						
Feasibility							
FEED							
Permitting							
Supply Contracts							
FID Construction							
Construction	2026 2026						
Grant Obtention	2020 2020						
Date							



**CEOS** Deutschland

## mosaHYc (Mosel Saar Hydrogen Conversion

ETR-N-899		Project		En	ergy Transition Ro Project	elated N	Ion-FID
Update Date			15/06/2020			A	dvanced
Description	infrastructures, connecting S The ambition of the mosaHY in Saarland, Lorraine and Lux and especially in the mobility mobility ambitions of Saar fe	aarland (Germany) and L c project is to provide a cemburg can access on a v sector. Indeed, the proj ederal State in Germany,	her towards a cross-border 100% orraine (France) and arriving at th 70 km regional-size hydrogen infu non-discriminatory basis and inte ect aims at supplying first future h Grand Est Region in France and Lu societal challenges including the t	e borde rastructi eract fre nydroge uxembu	r of Luxembourg. ure where various hydel ely to develop hydrog n filling stations, in lir rg. Thus, the project o	drogen producers gen applications ir ne with green cros could contribute d	and consumers the industry s-border ecarbonising
PRJ Code - PRJ Name Capacity Increments Varia	- nt For Modelling						
Point	3	Operator		Year	From Gas System	To Gas System	Capacity
		GRTgaz		2024	IB-FR1	Y-DEnm	0.90 GWh/d
			Comment: New bid	lirection	nal H2 IP between Fra	ance and Germany	
Obergailbach (FR) / Medel	sneim (DE)	GRTgaz		2024	Y-DEnm	IB-FR1	0.90 GWh/d
			Comment: New bid	lirection	nal H2 IP between Fra	ance and Germany	
Sponsors		Gene	eral Information				
Sponsors Section 1		Gene Promoter	eral Information GRTgaz, CREOS Deutschland	1			
•	50%						

Status

Website

50%

Planned

Schedule	Start Date	End Date
Pre-Feasibility		12/2020
Feasibility	01/2021	12/2021
FEED		
Permitting		
Supply Contracts		
FID		01/2022
Construction	01/2022	12/2024
Commissioning	2024	2024
Grant Obtention Date		

	Technical Information (ETR)		
tion/Phase Name	Main Technical Parameters	Technical Information Comment	Commissic ning Year
ling - Perl	A 55 km long pipeline from Carling to Perl (Germany). capacity ; 10 000m3/h (max 20 000m3/h)		2024
n Völkingen - Carling	- A 15 km long pipeline connecting the power plant site Fenne- Völklingen (Germany) to the industrial platform in Carling (France); capacity : 10 000m3/h (max 20 000m3/h)		2024

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		White	Stream				
TRA-N-53		Project		Pipeline incl	uding CS	٩	Non-FID
Update Date		25/	10/2019	Non-Adva			
Wi Description co Rc	Il branch off an existing pi onnection point to Georgia omania, across the Black Se	vill transport gas produced in Tu peline from Azerbaijan to Georg n Black Sea coast where a majo ea (an alternative destination to prs to bring competitively priced	gian-Turkish border (the SCI r compressor station will pro Varna, Bulgaria can be cons	P) and will include an o ovide the high pressur sidered). White Stream	onshore pipelin re required to t will be connect	ie from th ransmit g cted to Bl	ne SCP las to Constanta RUA and
PRJ Code - PRJ Name -							
Capacity Increments Variant For Point	Modelling	Operator		Year From Gas Sy	stem To Gas	System	Capacity
Foint		White Stream		2023 GEw		NO System	505.00 GWh/d
Constanta (White Stream)		White Stream	t: Commissioning rescheduled from 2022 to 2023				
N 1 (CD)		White Stream		2023 GE/SCP		Ew	505.00 GWh/d
Vale (GE)			Commissioning resche	oning rescheduled from 2022 to 2023			
Sponsors		General Inf	ormation	ND	P and PCI Info	ormation	
W-Stream Pipeline Company Ltd	80%	Promoter	White Stream Ltd				ts in the country)
Georgian Oil and Gas Corporatio	on (GOGC) 10%	Operator	White Stream	NDP Number			
		Host Country	Georgia	gia NDP Release Date			
M Bryza	10%	Status	Planned	NDP Website			
		Website	Project's URL	Currently PCI			No
				Priority Corridor(s)			SGC

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Schedule Start Date End		End Date
Pre-Feasibility		12/2011
Feasibility	09/2019	09/2020
FEED	10/2020	09/2021
Permitting	01/2021	12/2021
Supply Contracts		12/2021
FID		01/2022
Construction	06/2022	12/2023
Commissioning	2023	2023
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Supsa to Constanta	Offshore (for first stage / 16 bcma)	813	1,115	375	2023
Vale to Supsa	Onshore	1,039	135		2023
	Total		1,250	375	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, appropriate connections and diversification of supply sources, su emissions, supporting intermittent renewable generation and en	pplying counterparts and routes,	Sustainat		-
Specific Criteria Fulfilled Comn	aants				

Current	TYNDP	:	<b>TYNDP</b>	2020 -	Annex A
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	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	The progress of the Trans Caspian Pipeline system (2 strings) - so the enabler project of the White Stream Pipeline, was not that fast as previously expected because of the uncertainties regarding legal status of the Caspian Sea. Since the signature of the Caspian Sea convention signed mid of 2018 - the perceived risks by potential investors has decreased, subsequently interest in the Trans Caspian Pipeline system has increased. Nevertheless, it takes some time to fully built up the necessary confidence of investors consequently it will be difficult to catch up regarding initial time schedule to the full extend, thus a rescheduling of the White Stream Pipeline was advisable.
	Expected Gas Sourcing
Caspian Region	
	Benefits
Main Driver	Market Demand
Main Driver Explanation	Diversification of delivery routes (two entry points into EU) resulting in the reduction of perceived risk is important for such sizable supply source as Turkmenistan and potentially Kazakhstan and Uzbekistan. For Germany and Austria White Stream also ensures lower transportation costs in comparison with the route via Turkey being more advantageous for SEE and Italy. WS provides for internal diversification of routes within the Southern Gas Corridor in expectation of increased import needs for mentioned areas in the EU.
	Increased competition because of the highly competitive gas from Turkmenistan, as well improved security of gas supply because of the new source and the new route. Market integration because of enabling more competition even in Georgia (trade with the EU-internal market on swap basis).
	Barriers
Barrier Type	Description
Political	Since the Caspian Sea convention was signed only recently, developments regarding transporting Turkmen gas across the Caspian Sea were not as fast as expected in previous years, thus slowed down the progress of the TCP and consequently White Stream as well. Because of the momentum generated by signature of Caspian Sea convention, progress of both projects has increased but still difficult to catch up to full extend, thus a rescheduling of the White Stream Pipeline was advisable.
Others	Risk perceived by potential investors because of the missing Caspian Sea convention which was only signed mid of 2018. Even after the signature of the Caspian Sea convention, which is perceived as a key milestone, it takes some time to increase confidence of potential investor but the interest is steadily and quickly growing. So, once the Trans Caspian Pipeline 1st string and in particular 2nd string make the required progress the White Stream pipeline wil significantly improve progress as well.

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	CBCA	Financia	al Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturi Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	Yes
Countries Net Cost Bear	r	Comments	TEN-E in 2008 and 2009
Additional Comments		General Comments	

		Compressor sta	tion at Ambelia				
TRA-N-1278		Project			Pipeline includin	g CS 🛛 🛚	Non-FID
Update Date		11/0	09/2019			Non	-Advanced
Description	system of DESFA to transport	tallation of a new compressor gas from north to south but a ill add one additional Entry poi	lso (in reverse flow) from se	outh to	north. This increase		
PRJ Code - PRJ Name	-						
Capacity Increments Varia	ant For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Nea Mesimvria		DESFA S.A.		2023	GR	GR/TAP	32.40 GWh/
		DESFA S.A.		2023	GR/TAP	GR	32.40 GWh/o
Sponsors		General Inf	ormation		NDP and	d PCI Information	
DESFA S.A.	100%	Promoter	DESFA S.A.	Part	of NDP Yes	(National Develop	
		Operator	DESFA S.A.				202
		Host Country	Greece		Number		2.1.2
		Status	Planned		Release Date		21/02/201
		Website	<u>Project's URL</u>		Website		<u>NDP UR</u>
					ently PCI		N
				Priori	ity Corridor(s)		SGO

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	12/2018	06/2019
FEED	10/2019	06/2020
Permitting	11/2019	11/2020
Supply Contracts		07/2020
FID		05/2020
Construction	12/2020	03/2023
Commissioning	2023	2023
Grant Obtention		
Date		

Pipelines and Compressor Stations Diameter Length Compressor Power Comissioning **Pipeline Comment Pipeline Section** (km) (MW) Year (mm) Ambelia 2023 20 Total 20 **Fulfilled Criteria** Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through Specific Criteria Fulfilled appropriate connections and diversification of supply sources, supplying counterparts and routes Specific Criteria Fulfilled Comments

**Expected Gas Sourcing** 

Caspian Region, Russia

Main Driver

Market Demand

Main Driver Explanation

Benefit Description

	СВСА	Finar	ncial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	Yes
Website		Grants for works amount	Mln EUR 32.7
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

Benefits

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## Compressor station at Nea Messimvria

TRA-N-971	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	The project consists of the implementation of a 27 MW boosterr station in order to enable project is the second phase of development of project "TRA-N-941-Metering and Regulat		system to TAP. This
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Nea Mesimvria	DESFA S.A.	2023	GR	GR/TAP	49.20 GWh/d

Sponsors			General Information	NDP and PCI Information		
DESFA	100%	Promoter	DESFA S.A.	Part of NDP	Yes (National Development Plan NNGS	
		Operator	DESFA S.A.		2017-2026)	
		Host Country		NDP Number	2.2.1.4	
		Status	Planned	NDP Release Date	21/02/2019	
		Website	Project's URL	NDP Website	<u>NDP URL</u>	
				Currently PCI	Yes (7.1.3 (2020))	
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	09/2018	06/2019
FEED	10/2019	06/2020
Permitting	02/2020	09/2020
Supply Contracts		09/2020
FID		09/2020
Construction	09/2020	03/2023
Commissioning	2023	2023
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Nea Messimvria to TAP				27	0
	Total			27	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, sup appropriate connections and diversification of supply sources, supply	ying counterparts and routes,	Sustainab		0
	emissions, supporting intermittent renewable generation and enhan	cing deployment of renewable	e gas		
Specific Criteria Fulfilled Comments	continued from previous field: - Promote competition by offering	0 1 9	0	to those of historica	l suppliers of
Specific Criteria Fulfilled Comments	continued from previous field: - Promote competition by offering the region	0 1 9	0	to those of historica	l suppliers of
Specific Criteria Fulfilled Comments	continued from previous field: - Promote competition by offering	0 1 9	0	to those of historica	l suppliers of

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	Benefits
Main Driver	Market Demand
Main Driver Explanation	
Benefit Description	The project will enable TAP to acquire increased flexibility since gas quantities that might be delivered by TAP to intermediate destinations will be

compensated by quantities delivered by DESFA to TAP.

	CBCA	Finar	ncial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

## Compressor station at Nea Messimvria (3rd unit)

TRA-F-1276	Project	Pipeline including CS	FID
Update Date	18/11/2019		Non-Advanced
Description	The project consists in the addition of a third turbocompressor unit at the existing import capacity of the transmision system of DESFA to transport gas from northis needed in view of the commissioning of TAP that will add one additional Entry	n to south but also (in reverse flow) from sout	h to north. This increase
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Mo	odelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
No. Martinuda	DESFA S.A.	2022	GR	GR/TAP	32.40 GWh/d
Nea Mesimvria	DESFA S.A.	2022	GR/TAP	GR	32.40 GWh/d

Sponsors		General Information		NDP and PCI Information		
DESFA 100%	Promoter	DESFA S.A.	Part of NDP	Yes (National Development Plan 2017-		
	Operator	DESFA S.A.		2026)		
	Host Country	Greece	NDP Number	2.1.2.8		
	Status	Planned	NDP Release Date	21/02/2019		
	Website	Project's URL	NDP Website	<u>NDP URL</u>		
			Currently PCI	No		
			Priority Corridor(s)	SGC		
			, , , , , , , , , , , , , , , , , , ,			

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	10/2019	01/2019
FEED	02/2019	10/2019
Permitting	10/2019	09/2020
Supply Contracts		02/2020
FID		06/2019
Construction	12/2020	09/2022
Commissioning	2022	2022
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Nea Messimvria				8	2022
	Total			8	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supp appropriate connections and diversification of supply sources, supplyi		s, Security	y of Supply, inter alia	through
Specific Criteria Fulfilled Comr	nents				

Expected Gas Sourcing

Caspian Region, Russia

Main Driver Market Demand

Main Driver Explanation

Benefit Description

СВСА		Financial Assistance
Decision No, we have not submitted an invest		(3) No, we have not applied for CEF
and we do n	ot plan to submit it Grants for studies	No
Submissin Date	Grants for studies ar	mount Mln EUR 0.0
Decision Date	Grants for works	No
Website	Grants for works am	ount Mln EUR 0.0
Countries Affected	Intention to apply fo	or CEF No decision yet taken
Countries Net Cost Bearer	Other Financial Assis	stance Yes
Additional Comments	Comments	DESFA has requested grants for construction from PA (Partnership Agreement for the Development Framework) 2014-2020. This programme uses resources originating from the European Structural and Investment Funds (ESIF) of the European Union. The requested amount is 7.54 million EUR. The decision from the competent authorities is pending.
	General Comments	

Benefits

		Compressor Station Kipi				
TRA-N-128		Project		Pipeline including	g CS 🛛 🔊	Ion-FID
Update Date		26/11/2019			Non	-Advanced
Description	in order to make possible the also contains a regulating s	ompressor Station on the GR side of the GR/TK b he transmission of natural gas to the Greek and tation in Komotini which is needed in order to p arg) than the part from Kipi to Komotini (75 barg	European markets protect the part of t	with the use of down	nstream transmissio	on systems. It
PRJ Code - PRJ N	Name -					
Capacity Increm	ents Variant For Modelling					
	Variant : 92.5 GWh/d	case where TAP will be, from the be IGB will be supplied by TAP therefo ones of neighbouring operators.	0 0.			
Point		Operator	Year	From Gas System	To Gas System	Capacity
КІРІ (ТК) / КІРІ ((	GK)	DESFA S.A.	2024	TRi	IB-GRk	
		DESFA S.A. DESFA S.A.	2024 2024	TRi IB-GRk	IB-GRk BG/IGB	44.00 GWh/d
Komotini (DESFA	4) - GR / IGB					44.00 GWh/d 62.50 GWh/d
Kipi (TR) / Kipi ( Komotini (DESFA Komotini (DESFA Capacity Increme	4) - GR / IGB	DESFA S.A.	2024	IB-GRk	BG/IGB	44.00 GWh/d 62.50 GWh/d
Komotini (DESFA Komotini (DESFA	A) - GR / IGB A) Bottleneck	DESFA S.A.	2024 2024 eginning, connecte network therefore	IB-GRk IB-GRk ed to TANAP at the G the C/S will supply ga	BG/IGB GR R/TR border, and	44.00 GWh/d 62.50 GWh/d
Komotini (DESFA Komotini (DESFA	A) - GR / IGB A) Bottleneck ents Variant(s) For Information Only	DESFA S.A. DESFA S.A. case where TAP will be, from the be IGB will be supplied by the DESFA r	2024 2024 eginning, connecte network therefore	IB-GRk IB-GRk ed to TANAP at the G the C/S will supply ga	BG/IGB GR R/TR border, and	44.00 GWh/d 62.50 GWh/d 44.00 GWh/d Capacity

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Sponsors			General Informa	ation	N	DP and PCI Information	
DESFA S.A.		100%	Promoter	DESFA S.A.	Part of NDP	Yes (National Developr	
			Operator	DESFA S.A.			2017-202
			Host Country	Greece	NDP Number		2.2.1
			Status	Planned	NDP Release Date		21/02/201
			Website	<u>Project's URL</u>	NDP Website		<u>NDP UI</u>
					Currently PCI		Yes (6.8.1 (2020
					Priority Corridor(s)		
Schedule	Start Date	End Date			Th	ird-Party Access Regime	
Pre-Feasibility					Considered TPA Reg	gime	Regulate
easibility	06/2019	09/2019			Considered Tariff Re	egime	Regulate
EED	01/2020	06/2020			Applied for Exempti	on	٨
Permitting	03/2020	01/2021			Exemption Granted		Not Releva
Supply Contracts		02/2021					
ID		01/2021			Exemption in entry	direction	0.00
Construction	06/2021	06/2023			Exemption in exit di	rection	0.00
Commissioning	2024	2024					
Grant Obtention Date							
Pipelines and Compr	essor Stations - A	Alternative Variant					<i>.</i>
Pipeline Section			Pipeline Comment			ngth Compressor Power km) (MW)	r Comissioning Year
(ipi					0	0 18	0
		T	otal			0 18	

		l Criteria	
			uter Security of Supply inter alig through
Specific Criteria Fulfilled	Competition, inter alia through diversification of supp appropriate connections and diversification of supply		
Specific Criteria Fulfilled Comme	The C/S will increase the import capacity from Turkey will allow the entry of new suppliers in the market that		5 5
	Delays since	e last TYNDP	
Delay Since Last TYNDP	0		
Delay Explanation			
		as Sourcing	
Caspian Region, Russia, LNG (),	Other Central Asian, Middle Eastern and East-Mediterranea	an sources	
	Ben	efits	
Main Driver Marke	t Demand		
Main Driver Explanation			
Benefit Description			
	Bar	riers	
Barrier Type Descri	ption		
Market Lack o	f market maturity		
	CBCA	Fina	incial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
	and we do not plan to submit it	Grants for studies	Nc
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taker
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

East Med / Peloponnesus (GR)

East Med / Thesprotia (Poseidon)

90.00 GWh/d

350.00 GWh/d

EastMed Pipeline							
TRA-A-330		Project		Pipeline including	J CS N	Non-FID	
Update Date		22/09/2020			Non	-Advanced	
Description PRJ Code - PRJ Name	to the European gas system. The project consists of 5 sections	connecting the following areas: Leva f 320-350 GWh/d with the option to t covered in the offshore of Crete.	ntine basin – Cyprus –C	rete- Peloponnese –V	Vest Greece-Thesp	protia.	
Capacity Increments Varian	nt For Modelling						
Point		Operator	Year	From Gas System	To Gas System	Capacity	
Fact Mad (Crote (CD)		IGI Poseidon S.A.	2025	GRc	GR/EMD	190.00 GWh/d	
East Med / Crete (GR)		IGI Poseidon S.A.	2025	GR/EMD	GRc	20.00 GWh/d	
East Med / Cyprus (CY)		IGI Poseidon S.A.	2025	GR/EMD	CY	30.00 GWh/d	
East Med / Cyprus/Israeli P	roduction Field	IGI Poseidon S.A.	2025	NPcCY	GR/EMD	330.00 GWh/d	

2025

2025

GR/EMD

GR/IGI

IGI Poseidon S.A.

IGI Poseidon S.A.

GR

GR/EMD

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Sponsors		General Information		NDP and PCI Information	
EastMed pipeline: from Crete to Pelopon		Promoter	Natural Gas Submarine Interconnector Greece-Italy	Part of NDP	No ((6) others - please comment below)
IGI Poseidon SA	100%	Tomoter	Poseidon S.A	NDP Number NDP Release Date	
EastMed pipeline: from Cyprus to Crete IGI Poseidon SA	100%	Operator	IGI Poseidon S.A.	NDP Website	
EastMed pipeline: from Levantine Basin t		Host Country Status	Greece Planned	Currently PCI	Yes (7.3.1 (2020))
IGI Poseidon SA	100%	Website	<u>Project's URL</u>	Priority Corridor(s)	

EastMed pipeline: from Peloponnese to West Greece

IGI Poseidon SA	
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EastMed pipeline: from West Greece to Thesprotia (tie-in with Poseidon)

100%

IGI Poseidon SA		100%
Schedule	Start Date	End Date
Pre-Feasibility		01/2014
Feasibility	05/2015	03/2018
FEED	11/2018	12/2021
Permitting	06/2019	12/2021
Supply Contracts		
FID		12/2021
Construction	12/2021	12/2024
Commissioning	2025	2025
Grant Obtention Date	25/01/2018	25/01/2018

Third-Party Access Regime					
Considered TPA Regime	Not Applicable				
Considered Tariff Regime	Not Applicable				
Applied for Exemption	Not Yet				
Exemption Granted	No				
Exemption in entry direction	0.00%				
Exemption in exit direction	0.00%				

D' I'

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
EastMed pipeline: section from Crete to Peloponnese	This offshore pipeline section is designed to transport 320 GWh/d of natural gas form the Levantine Basine and can be upgraded for further 190 GWh/d of natural gas from the offshore of Crete in case relevant reserves will be discovered.		421	120	0
EastMed pipeline: section from Cyprus to Crete	This section of the project is related to the offshore pipeline between Cyprus and Crete.	660	732	100	0
EastMed pipeline: section from Levantine Basin to Cyprus	This offshore pipeline section will tansport 350GWh/d to Cyprus where it will deliver 30 Gwh/d for the internal consumption and the remaing 320GW/d will be exported to Greece via Crete.	610	165		0
EastMed pipeline: section from West Greece to Thesprotia	This offshore pipeline section is designed to transport 320 GWh/d of natural gas form the Levantine Basine and can be upgraded for further 190 GWh/d of natural gas from the offshore of Crete in case relevant reserves will be discovered.	1,070	236		0
EastMed: section from Peloponnese to West Greece	This offshore pipeline section is designed to transport 320 GWh/d of natural gas form the Levantine Basine and can be upgraded for further 190 GWh/d of natural gas from the offshore of Crete in case relevant reserves will be discovered.	1,070	317		0
То	tal		1,871	220	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	Strengthens SECURITY OF SUPPLY via diversification, providing solutions to disruption scenarios and impacting SSA. Achieves gasification of Cyprus, ending isolation and connects it, with reverse flow to Europe gas network system via GR and IT (Poseidon offshore). Interconnects Crete, promoting interoperability and gasification. Provides 3rd diversified gas source and increased N-1 indicator for Greece. (SLID). Concerns positively remaining flexibility in Greece and contributes, in case of disruption of Ukraine route. Enhances COMPETITION along whole gas chain, including among producers. Provides Greece and Italy with additional entry points, access to new markets, promoting diversification of counterparts in these markets and beyond. The new gas will compete advantageously lowering gas supply price across Eur. Promotes SUSTAINABILITY, allowing CY & Crete to overcome dependence on imported petrol products, triggering cost savings, and attainment of EU emission reductions targets.
	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	The project's development activities are on time. Compared to the previous TYNDP application, the date of FID has been corrected from 06 2021, to 12 2021 and the formal start of the permitting phase, according to Article 10 of Regulation 347/2013 adjusted. The overall project schedule remains unaffected.

#### **Expected Gas Sourcing**

Cyprus resources and offshore of Crete in case relevant gas reserves will be discovered and potentially Egypt.

Comments about the Third-Party Access Regime

The access regime will be defined at a later stage of the development activities

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		Benefits					
Main Driver	Others						
Main Driver Explanation	Basin with the Euro Levantine Basin gas deliveries from new trading in the Sout	ive of the Eastern Mediterranean Pipeline is to provide a permanent connection of the recently pean gas markets. The specific objectives to be achieved with implementation of the project ar s fields to mainland Europe, to diversify the sources, routes and counterparts of the European g v sources, which are wholly or partly produced within the EU; • integrate Cyprus with the Europe h Eastern Europe region; • promote the development of a gas trading hubs in Greece and in Ita facilitating gas exchanges in South Eastern Europe; • gasify regions of Greece that currently ha Vestern Greece.	e to: • exploit as supply with ean gas system aly, in connect	t the proximity of the h 10-16 bcm/year of m, further promoting gas ion with other Southern			
Benefit Description	diversify sources so Levantine Basin, ind development of the needs: • Increases s	f the European Union on external gas supplies is continuously increasing, with indigenous prod o as to strengthen security of the markets' supply, particularly in SEE. On the other hand, unlock cluding - referring to the sole Cyprus - the largest recent discovery of gas reserves in Europe, is e exploration and hydrocarbons in the whole East Mediterranean. Considering all the above, Ea security and diversification of gas supplies to Europe, as well as competition in line with the EU ontributes to the development of EU domestic gas resources, thus limiting the dependence on y located for EU	ing the recent particularly rest stMed addrest objectives to	t discoveries in the elevant for the sses the following main complete the internal			
		Barriers					
Barrier Type	Description						
Political	A supportive political, fiscal and regulatory framework is necessary to secure the timely development of the EastMedProject. a 4-Party Agreement Y						
		Intergovernmental Agreements					
Agreement		Agreement Description	Is Signed	Agreement Signature Date			
Italiy-Greece-Cyprus-Israel Working Group Cyprus-Israel-Greece Trilateral Summit Declaration			Yes	01/12/2016			
		Agreement to "to strengthen the cooperation between our three countries in order to promote a trilateral partnership in different fields of common interest and to work together towards promoting peace, stability, security and prosperity in the Mediterran"	Yes	28/01/2016			
Memorandum of Understanding on cooperation in relation to EastMed Pipeline		MoU signed by Ministers of the Republic of Cyprus, the Hellenic Republic and the State of Israel and the Ambassador of the Italian Republic to Cyprus	Yes	05/12/2017			

No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received
	Applied for CEF	decisio
not	Grants for studies	Y
	Grants for studies amount	Mln EUR 34
	Grants for works	∧ ∧
	Grants for works amount	Mln EUR 0
	Intention to apply for CEF	No decision yet take
	Other Financial Assistance	٨
		The project has been awarded in 2015 with 2 M $\in$ of CE grants for the development activities related to Pre-FEE
	Comments	phase In 2018, a second CEF grant of 34.5M€ has been awarde to the project for the development activities related t FEED Phas
		IGI Poseidon is currently carrying out CEF Action 7.3. 0023-CYEL-S-M-17, Implementation schedule: May 201 to December 202
	General Comments	The previous CEF Action for the EastMed, 7.3.1-002. ELCY-S-M-15, Implementation schedule: May 2015 t March 2018, has been successfully carried ou
		Grants for works Grants for works amount Intention to apply for CEF Other Financial Assistance

Supply Contracts

Construction

Commissioning

Grant Obtention

2022

FID

Date

			Metering and Reg	julating Station at Alexandrou	poli			
TRA-N-1090			Project		I	Pipeline including	J CS M	Non-FID
Update Date			100	15/08/2019			Non	-Advanced
Description		The project consists of the implementation of one Metering and Regulatine of the Greek transmission system with the LNG terminal in Northern Greek			Alexand	roupoli (Amphitriti) f	or the potential in	terconnection
PRJ Code - PRJ Name	-							
Capacity Increments Va	riant For Mod	delling						
Point			Operator		Year	From Gas System	To Gas System	Capacity
Alexandroupolis Amphi	itriti		DESFA S.A.		2022	GRa	IB-GRk	268.00 GWh/d
Sponsors			G	eneral Information		NDP and	PCI Information	
DESFA S.A.	1	100%	Promoter	DESFA S.A.	Part o	f NDP No (	(6) others - please	comment below)
			Operator	DESFA S.A.	NDP N	Number		
			Host Country	Greece	NDP F	Release Date		
			Status	Planned	NDP V	Website		
			Website	Project's URL	Currer	ntly PCI		Yes (6.9.1 (2020))
					Priorit	ty Corridor(s)		
Schedule	Start Date	End Date				Third-Part	y Access Regime	
Pre-Feasibility					Consid	dered TPA Regime		Regulated
Feasibility	09/2019	02/2020			Consic	dered Tariff Regime		Regulated
FEED	04/2020	12/2020			Applie	ed for Exemption		Not Relevant
Permitting	06/2020	06/2021				otion Granted		Not Relevant

08/2021		
07/2021	Exemption in entry direction	0.00%
03/2023	Exemption in exit direction	0.00%
2022		

#### Fulfilled Criteria

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes

Specific Criteria Fulfilled Comments The project will help in adding one additional supply source. Thus enhancing market integration, security of supply and growth of competition.

# Expected Gas Sourcing LNG () Benefits Main Driver Market Demand Main Driver Explanation Benefit Description Barrier Type Description Barrier Type Description Market Lack of market maturity Financial Assistance No. we have not submitted an investment request vet. Applied for CEE (3) No. we have not applied for CEE

Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

# Metering and Regulating station at Megalopoli

TRA-N-1091	Project		Pipeline including CS		lon-FID
Update Date	15/08/2019				-Advanced
Description	The project consists of the implementation of one Metering & Regulating interconnection of the Greek gas transmission system with the East-Med p	<b>.</b> .	oli, in the Peloponnese	e, for the potential	
PRJ Code - PRJ Name	-				
	or Modelling				
Capacity Increments Variant I	or Modelling Operator	Year	From Gas System	To Gas System	Capacity

Sponsors				General Information	N	IDP and PCI Information
DESFA S.A.		100%	Promoter	DESFA S.A.	Part of NDP	No ((6) others - please comment below)
	- Y '		Operator	DESFA S.A.	NDP Number	
			Host Country	Greece	NDP Release Date	
			Status	Planned	NDP Website	
			Website	Project's URL	Currently PCI	Yes (7.1.3 (2020))
					Priority Corridor(s)	
Schedule	Start Date	End Date			Th	nird-Party Access Regime
Pre-Feasibility					Considered TPA Re	gime Regulated
Feasibility	04/2022	10/2022			Considered Tariff R	egime Regulated
FEED	12/2022	10/2023			Applied for Exempt	ion Not Relevant
Permitting	02/2022	02/2023			Exemption Granted	Not Relevant
Supply Contracts		09/2023				
FID		02/2023			Exemption in entry	direction 0.00%
Construction	09/2023	12/2025			Exemption in exit d	irection 0.00%
Commissioning	2025	2025				
Grant Obtention Date						

	Fulfilled Criteria
Specific Criteria Fulfille	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Securit of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes
Specific Criteria Fulfille	ed Comments The project will allow one additional source of gas (Levantine basin) to supply the Greek transmission system
	Delays since last TYNDP
Delay Since Last TYNE	DP
Delay Explanation	Lack of market demand
	Expected Gas Sourcing
Cyprus	
	Benefits
Main Driver	Market Demand
Main Driver Explanatio	n
Benefit Description	The project will add one more source of supply to the Greek market thus increasing SoS and Market integration.
	Barriers
Barrier Type	Description
Market	Lack of market support

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CBCA		Financia	al Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturia Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer			110
Additional Comments		Comments	
		General Comments	

# Metering and Regulating station at Nea Messimvria

TRA-F-941	Project	Project Pipeline includ		y CS	FID	
Update Date	18/11/2019					
Description	The project consists of the implementation of one Metering & Regulating s transmission system with TAP.	station at Nea Mess	simvria for the interco	nnection of the Gr	eek	
PRJ Code - PRJ Name	-					
Capacity Increments Va	ariant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Nea Mesimvria	DESFA S.A.	2020	GR/TAP	GR	49.20 GWh/	

Sponsors	General Information		NDP and PCI Information		
	Promoter	DESFA S.A.	Part of NDP	Yes (National Development Plan NNGS	
	Operator	DESFA S.A.		2017-2026	
	Host Country		NDP Number	2.2.1.4	
	Status	Planned	NDP Release Date	21/02/2019	
	Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>	
			Currently PCI	Yes (7.1.3 (2020))	
			Priority Corridor(s)		

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Schedule	ule Start Date End Date	
Pre-Feasibility		
Feasibility	01/2016	04/2016
FEED	05/2016	03/2018
Permitting	02/2018	02/2019
Supply Contracts		09/2019
FID		09/2017
Construction	09/2019	10/2020
Commissioning	2020	2020
Grant Obtention		
Date		

Pipelines and Compressor Sta	ations	
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissionin (mm) (km) (MW) Year
Nea-Messivria to TAP		1 0
	Total	1
	Fulfilled Criteria	
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supp lifting the isolation of at least one Member State and reducing energy of Supply, inter alia through appropriate connections and diversification	v infrastructure bottlenecks, interoperability and system flexibility, Securit

Specific Criteria Fulfilled Comments The project will add one more route and source of gas supply (from TAP) to the Greek transmission system.

Expected Gas Sourcing

Caspian Region, LNG ()

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	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	1
Benefit Description	The project will enable the Greek gas transmission system to be supplied by an additional gas source and route.

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 0.5
Website		Grants for works	Yes
Countries Affected		Grants for works amount	Mln EUR 7.1
Countries Net Cost Bearer		Intention to apply for CEF	No decision yet taken
Additional Comments		Other Financial Assistance	Yes
		Comments	DESFA has requested grants for construction from PA (Partnership Agreement for the Development Framework) 2014-2020. This programme uses resources originating from the European Structural and Investment Funds (ESIF) of the European Union. The requested amount is 5.45 million EUR.
		General Comments	

# Metering and Regulating Station at UGS South Kavala

TRA-N-1092		Project		P	Pipeline includin	g CS N	lon-FID
Update Date			15/08/2019			Non	-Advanced
Description	The project consists of the im transmission system with the		ering and Regulating Station at k	Kavala fo	or the potential inter	connection of the	Greek
PRJ Code - PRJ Name	-						
Capacity Increments Varia	nt For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
		DESFA S.A.	:	2023	STcGR	IB-GRk	44.00 GWh/d
UGS South Kavala (GR)		DESFA S.A.		2023	IB-GRk	rom storage to grid STcGR	55.00 GWh/d
					Comment: F	rom grid to storage	2
Sponsors		Genera	I Information		NDP and	PCI Information	
		Promoter	DESFA S.A.	Part of	fNDP No	((6) others - please	comment below)
		Operator	DESFA S.A.	NDP N	lumber		
1		Host Country	Greece	NDP R	lelease Date		
DESFA S.A.	100%	Status	Planned	NDP V	Vebsite		
		Website	<u>Project's URL</u>	Curren	ntly PCI	Y	es (6.20.3 (2020))
				Priority	y Corridor(s)		

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Schedule	Start Date	End Date	Third-Party Access Regime	
Pre-Feasibility			Considered TPA Regime	Regula
Feasibility	04/2020	10/2020	Considered Tariff Regime	Regula
EED	11/2020	05/2021	Applied for Exemption	
Permitting	12/2020	12/2021	Exemption Granted	
Supply Contracts		03/2022		
ID		01/2022	Exemption in entry direction	0.0
Construction	03/2022	09/2023	Exemption in exit direction	0.0
Commissioning	2023	2023		
Grant Obtention				
Date				

	Fulfilled Criteria
Specific Criteria Fulfilled	Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	The project is a needed part of the Greek transmission system to allow its connection to the UGS of South Kavala promoted by others (Hellenic Republic Assets Development Fund - HRADF)
	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	The project schedule depends on the implementation of the UGS of South Kavala, promoted by others (HRADF).
	Expected Gas Sourcing

All sources of gas comprised in the Greek supply mix including the ones to be brought by TAP.

	Benefits				
Main Driver	Regulation SoS				
Main Driver Explanation	The UGS projets will enhance SoS				
Benefit Description	The enhancement of SoS will become more important as the penetration of natural gas in the residential sector of the still immature Greek gas main its neighbours (like FYRoM) will increase.				
	Barriers				
Barrier Type	Description				
Others	The implementation of the project depends on the implementation of the UGS South Kavala.				
Market	Lack of market maturity				
Market	Lack of market maturity				

	CBCA	Financial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we do not plan to submit it	Grants for studies	No	
Submissin Date		Grants for studies amount	Mln EUR 0.0	
Decision Date		Grants for works	No	
Website		Grants for works amount	Mln EUR 0.0	
Countries Affected		Intention to apply for CEF	No decision yet taken	
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		



Permitting

FID

Date

Supply Contracts

Construction

Commissioning

Grant Obtention

12/2018

12/2020

2022

03/2020

10/2020

06/2020

09/2022

2022

No

0.00%

0.00%

## ni/Couralija ninalina (ICNM)

		N	ea-Messimvria to Ev	zoni/Gevgelija pipeline (IG	NM)			
TRA-A-967			Project			Pipeline including	J CS N	lon-FID
Update Date			1	15/08/2019			Non	-Advanced
Description	The project consists c Transmission System	of a pipe	line from Nea-Messimvr	ia to the GR/MK border allowing	the sup	pply of North Macedon	nia by the Greek G	ias
PRJ Code - PRJ Name	-							
Capacity Increments Variant	For Modelling							
Point			Operator		Year	From Gas System	To Gas System	Capacity
Stojakovo village (MK) / Por	toiraklia (GR)		DESFA S.A.		2022	GR	MK	76.50 GWh/d
Sponsors			Gene	ral Information		NDP and	PCI Information	
DESFA S.A.		100%	Promoter	DESFA S.A.	Part	of NDP	Yes (	NDP 2017-2026
			Operator	DESFA S.A.	NDP	Number		2.1.2.
			Host Country	Greece	NDP	Release Date		
			Status	Planned	NDP	Website		<u>NDP UR</u>
			Website	<u>Project's URL</u>	Curre	ently PCI		No
					Priori	ty Corridor(s)		NSIE
Schedule Start	Date End Date					Third-Part	ty Access Regime	
Pre-Feasibility					Consi	dered TPA Regime		Regulatea
Feasibility 03,	<i>2017 01/2019</i>				Consi	dered Tariff Regime		Regulated
FEED 03,	/2019 11/2019				Appli	ed for Exemption		No

**Exemption Granted** 

Exemption in entry direction

Exemption in exit direction

Pipelines and Compress	or Stations	
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissioning
Nee Marsing via to Dant		(mm) (km) (MW) Year
Nea-Messimvria to Pont		700 50 0
	Total	50
	Fulfilled Criteria	
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supp appropriate connections and diversification of supply sources, supply emissions, supporting intermittent renewable generation and enhance	ying counterparts and routes, Sustainability, inter alia through reducing
Specific Criteria Fulfilled	Comments	
	Delays since last TYNDP	
Delay Since Last TYNDP		
Delay Explanation	The condition imposed by the Regulator for the approval of the inclus Test) had as a consequence a delay for the drafting of the relevant Gu transmission companies.	ision of the project iin the NDP (i.e. the execution of a successful Market uidelines and Notice and for the alignement betwenn the two gas
	Expected Gas Sourcing	
Caspian Region, LNG (D	<i>Ζ</i> ,WO)	
	Benefits	
Main Driver	Market Demand	
Main Driver Explanation	North Macedonia has a forecast gas demand showing an important increase due installations and in some of their power plants as well as in the residential space	
Benefit Description		

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## Current TYNDP : TYNDP 2020 - Annex A

	СВСА		Financial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	Yes
Additional Comments		Comments General Comments	DESFA has requested grants for construction from PA (Partnership Agreement for the Development Framework) 2014-2020. This programme uses resources originating from the European Structural and Investment Funds (ESIF) of the European Union. The requested amount is 16.91 million EUR. The decision from the competent authorities is pending.

# Poseidon Pipeline

TRA-A-10	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Advanced
Description	The Poseidon Pipeline project represents a valid "multi-source" option to consupply. The current configuration of the project includes 2 sections entirely within the Turkey to Thesprotia and ii) 210 offshore crossing the Ionian Sea up to the It In its first phase, Poseidon pipeline would transport 10-12 Bcm/y of the avail southern Balkans. In its second development phase, the project capacity will Eastern Mediterranean region through EastMed pipeline, to which Poseidon	e EU territory: i) 770km onshore crossing Greece f alian landfall in Otranto. able gas volumes at Turkish/Greek border, toward be increased up to 20 Bcm/y allowing the flow of	rom the border with Is Italy and the
PRJ Code - PRJ Name			

Point	Operator	Year	From Gas System	To Gas System	Capacity
	IGI Poseidon S.A.	2025	GR/EMD	GR/IGI	320.00 GWh/d
East Med / Thesprotia (Poseidon)			Со	mment: 2nd phase	2
	IGI Poseidon S.A.	2022	TRi	IB-GRk	480.00 GWh/d
Kipi (TR) / Kipi (GR)	IGI Poseidon S.A.	2025	TRi	IB-GRk	150.00 GWh/d
			Со	mment: 2nd phase	2
	IGI Poseidon S.A.	2022	IB-GRk	BG/IGB	90.00 GWh/d
Komotini (DESFA) - GR / IGB	IGI Poseidon S.A.	2025	IB-GRk	BG/IGB	65.00 GWh/d
			Со	mment: 2nd phase	2
	IGI Poseidon S.A.	2022	IB-ITs	GR/IGI	160.00 GWh/d
Oterate IT (ICI Persiden	IGI Poseidon S.A.	2022	GR/IGI	IB-ITs	380.00 GWh/d
Otranto - IT / IGI Poseidon	IGI Poseidon S.A.	2025	GR/IGI	IB-ITs	250.00 GWh/d
			Со	mment: 2nd phase	2

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						1 age 515 61 775
Sponsors			Ge	neral Information	NDP and PCI Information	
igi poseidon s.a.		100%	Promoter	Natural Gas Submarine Interconnector Greece-Italy Poseidon S.A	Part of NDP	Yes (Piano decennale di sviluppo delle reti di trasporto di gas naturale 2017 2026 (pag. 55, 56, 98)
			Operator	IGI Poseidon S.A.	NDP Number	n.c
			Host Country	Greece	NDP Release Date	30/11/201
			Status	Planned	NDP Website	<u>NDP UR</u>
			Website	Project's URL	Currently PCI	Yes (7.3.3 (2020)
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third	-Party Access Regime
Pre-Feasibility					Considered TPA Regin	ne Not Applicable
Feasibility	03/2004	10/2006			Considered Tariff Regi	me Not Applicable
FEED	08/2017	01/2019			Applied for Exemption	Ye
Permitting	08/2017	06/2019			Exemption Granted	Not Ye
Supply Contracts						
FID		06/2019			Exemption in entry dir	ection 0.00%
Construction	03/2020	09/2022			Exemption in exit direc	ction 0.009
Commissioning	2022	2025				
Grant Obtention Date						

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Poseidon offshore section		813	210	75	2022
Poseidon onshore section		1,220	770	75	2022
	Total		980	150	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled	Strengthens SoS. Broadens SGC with route diversification and additional/multiple diversified sources including from E. Mediterranean to IT, GR and EUR markets, contributing to mitigating demand/supply unbalance risks. Contributes to N-1 indicator for GR (SLID) enables access to storage facilities in IT. Added SoS via reverse flow for GR and (via IGB) SE Europe, allowing gas sourced from the IT and ensuring remaining flexibility in case of Ukraine route disruption. Boosts market integration with physical connection of GR-IT and via the IGB and EastMed deepens integration of SE Europe to European gas system. Poseidon enhances competition. Fosters creation of an Italian and Greek gas hub, increasing market liquidity and number of players, with benefit for European price signals thanks to forward and reverse flow and continental markets by exerting competitive pressure on gas importers to other European countries. Strengthens sustainability by accelerate switching gas from coal.
	Expected Gas Sourcing
Caspian Region, Cyprus a	and offshore Crete resources, coming through the EastMed pipeline.
	Comments about the Third-Party Access Regime
The promoter has obtain	ed for the initial configuration of Poseidon Project (offshore section), a TPA exemption for 89% of the forward flow capacity from Greece to Italy.
	Benefits
Main Driver	Others
Main Driver Explanation	The Poseidon pipeline will provide valuable amounts of diversified sources of gas, leading to greater liquidity of the impacted markets, enhancing the competitiveness of prices. Other than Italy (as well as Greece through reverse flow) Poseidon, functioning in complementarity with the SNAM RETE GAS, Adriatica line will enable the delivery of gas to markets in North East Europe where its benefits will also be felt. While market demand is a key driver, the

Poseidon pipeline, by allowing gas from the Southern Corridor to European markets, contributes fundamentally to security of supply. Through the promotion of diversification of sources, routes and counterparts, Poseidon serves to enhance energy security. In conjunction with the EastMed pipeline, it will enable the delivery of a completely new source, via a new route to reach markets, in Italy and beyond. Moreover, due to the reverse flow function, Poseidon will supply gas from Italy to the Greek system and thereby contribute decisively during disruption periods. As regards Italy, Poseidon creates a new entry point with firm capacity, enhancing the effectiveness of the N-I indicator. The new gas will also lead to greater market liquidity creating conditions for healthy gas trading. Via synergies with the Transitgas pipeline, these benefits and excess gas created can contribute to SoS in regions bordering NE and NW of Italy while SE European market conditions will also be positively influenced through the connection, via Greece, with these more developed, hub-based markets.

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Intergovernmental Agreements							
Agreement	Agreement Description		Is Signed	Agreement Signature Date			
Memorandum of Understanding between Greece and Turkey			Yes	01/05/2010			
Protocol of Cooperation between Italy and Azerbaijan			Yes	01/12/2007			
Italy-Greece-Turkey Intergovernmental Agreement			Yes	01/07/2007			
Italy-Greece Intergovernmental Agreement			Yes	01/11/2005			
Joint statement of the Italian Minister of Economic Development and the Turkish Minister of Energy and Natural Resources			Yes	01/11/2009			

	СВСА		Financial Assistance
Decision Submissin Date	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	Applied for CEF Grants for studies Grants for studies amount Grants for works	(3) No, we have not applied for CEF No Mln EUR 0.0 No
Decision Date Website Countries Affected Countries Net Cost Bearer		Grants for works amount Grants for works amount Intention to apply for CEF Other Financial Assistance	No Mln EUR 0.0 No decision yet taken Yes
Additional Comments		Comments	<ul> <li>The Poseidon project has been awarded in 2010 with c.a.</li> <li>5.5 M€ of EU grants through EEPR program (EEPR-2009- INTg-Poseidon), mainly for the technical development activities as Front-End-Engineering-Design and Design</li> <li>Appraisal and Certification for the project offshore section.</li> </ul>
		General Comments	

# South Kavala Underground Gas Storage facility

UGS-N-385	Project	Storage Facility	Non-FID
Update Date	06/01/2020		Non-Advanced
Description	The project involves the conversion of the offshore depleted gas field of South Ka	avala into an Underground Gas Storage Faci	lity.
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
	Hellenic Republic Asset Management Fund	2023	STcGR	IB-GRk	44.00 GWh/d	
			Comment: from storage to grid			
UGS South Kavala (GR)	Hellenic Republic Asset Management Fund	2023	IB-GRk	STcGR	55.00 GWh/d	
			Comment: f	rom grid to storage	2	

Sponsors	General Information		NDP and PCI Information		
Hellenic Republic Asset Develpment Fund (HRADF)	100%	Promoter	Hellenic Republic Asset Development Fund	Part of NDP	No ((3) the operators are not required to prepare and publish a NDP)
		Operator	Hellenic Republic Asset Management Fund	NDP Number	
		Host Country	Greece	NDI Nelease Date	
		Status	Planned	Currently PCI	Yes (6.20.3 (2020))
		Website	<u>Project's URL</u>	Priority Corridor(s)	

Schedule Star Pre-Feasibility	irt Date	End Date						10	ge 523 of 773
Pre-Feasibility		Enu Date					Third-Party	/ Access Regime	
		11/2019			Con	sidered TPA	A Regime		Regulatea
Feasibility 1	1/2019	06/2020			Con	sidered Tar	iff Regime		Regulatea
FEED 0	06/2020	10/2020			Арр	lied for Exe	mption		No
Permitting 0.	02/2021	09/2021			Exer	nption Gra	nted		No
Supply Contracts									
FID		10/2021			Exen	nption in e	ntry directior	1	0.00%
Construction 1	1/2021	09/2023			Exen	nption in e	xit direction		0.00%
Commissioning	2023	2023							
Grant Obtention Date									
	/		Technical Informatic	on (UGS)					
Storage Facility	Stora	age Facility Type	Multiple-cycle Facility Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor (%)	Comments	Commisioning Year

Depleted Field

Yes

Single-phase Project

720

South Kavala

	5
	Exact working
	gas volume
	(360 - 720
	mcm per
	annum)
	depends on the
	number of
	cycles as well
	as the number
	of operating
	wells.
	The
	aforementioned
	estimates, as
	well as number
	of cycles, are
	based on
	various
100	preliminary
100	studies
	conducted in
	the past.
	However, as the
	transaction
	process
	progresses and
	upon
	, completion of
	the FEED study
	more accurate
	project
	technical
	specifications
	will arise which
	can differ from
	the current
	known
	estimates.
	commutos.

5.0

4.0

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	Fulfilled Criteria
Specific Criteria Fulf	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes
pecific Criteria Fulf	- The storage facility may support the increased peneration of gas in the residential and commercial sectors as this makes the yearly demand distribution less even due to the space heating seasonal demand
	Delays since last TYNDP
Delay Since Last TY	NDP
Delay Explanation	Current market conditions are considered favourable for the project's advancement and the project promoter strongly believes that the indicated timeline will be met.
	Expected Gas Sourcing
Caspian Region, Rus	ssia, LNG ()
	Comments about the Third-Party Access Regime
The definition of the	e regulatory regime, including tariffs regime, is pending by the NRA.
	Benefits
Main Driver	Regulation SoS
	I. The UGS is expected to enhance Greece's security of supply during peak demand seasons (i.e. winter, summer) and system balancing gas during intrada
Main Driver Explana	tion peak hours II. The UGS will serve as an additional source primarily for the Greek but also for the neighbouring interconnected European gas markets. III. The UGS is expected to compliment other natural gas projects, promote Greece as regional gas hub and increase the natural gas system's efficiency
Benefit Description	
	Barriers
Barrier Type	Description
Regulatory	The regulatory framework will be finalised after the selection of a consessionaire, however, the project promoter has already initiated discussions with the NRA in order to form a solid view and understanding for the regulatory framework that will be applicable for the project
Political	N/A - The Greek state supports the advancement of the project, being evident from the fact that the Joint Ministerial Decision, which is a prerequistite to launch the tender process, is close to be finalised and published
	Final financing structure will be decided by the selected concessionaire, however, project's inclusion in the PCI list and support from the EU is deemed

	CBCA	Financial Assistance		
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or		Applied for CEF	(2) Yes, we have applied for CEF, but we have not received a decision yet
	not		Grants for studies	Yes
Submissin Date			Grants for studies amount	Mln EUR 1.7
Decision Date			Grants for works	No
Website			Grants for works amount	Mln EUR 0.0
Countries Affected			Intention to apply for CEF	
Countries Net Cost Bearer			Other Financial Assistance	No
Additional Comments			Comments	
			General Comments	
			General Comments	

		TAP Expansion				
TRA-N-810		Project		Pipeline including	g CS 🛛 🛚	Non-FID
Update Date		29/10/2019			A	dvanced
		d it can expand up to 20 bcm/a, subject m/a that can be created by adding addi				
Description	aggregated non-binding demand in	Binding phase on 1 July 2019 and on 21 ndications received at TAP's Interconnec hase to analyse suitable technical scena	tion Points in Gree	ce, Italy and Albania.	On 22 October 20	0
PRJ Code - PRJ Name	-					
Capacity Increments Varia	Int For Modelling					
Point		Operator	Year	From Gas System	To Gas System	Capacity
		Trans-Adriatic Pipeline AG	2025	TR/TNP	GR/TAP	233.00 GWh/d
Kipi (TR) / Kipi (TAP)		Comment: The total capacity entr when adding the initial TAP proj	<i>y</i>	pansion together. GCV		
		Trans-Adriatic Pipeline AG	2025	GR/TAP	BG/IGB	0.00 GWh/d
Komotini - TAP / IGB		Comment: GCV used for capacity calculations: 9.71 kWh/Sm3.				
		Trans-Adriatic Pipeline AG	2025	AL/TAP	IB-ITs	292.00 GWh/c
Melendugno - IT / TAP		Comment: The total capacity entr when adding the initial TAP proj	<i>,</i>	pansion together. GCV		
		Trans-Adriatic Pipeline AG	2025	GR/TAP	GR	0.00 GWh/d
Nea Mesimvria		Comment: The energy quantities hav initial capacity - for Nea Mesimvria ex by TAP in the 2019 Mark	xit cover also the no	on-binding demand in	dications received	1
		,	,	1 2 2 2 2		

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Sponsors			Ger	eral Information	NDP and PCI	Information
ВР		20%	Promoter	Trans Adriatic Pipeline AG	Part of NDP No ((6) o	thers - please comment below,
SNAM		20%	Operator	Trans-Adriatic Pipeline AG		
SOCAR		20%	Host Country		NDP Release Date	
			Status	-	NDP Website	
FLUXYS		19%	Website	<u>Project s ORL</u>	Currently PCI Priority Corridor(s)	No SGC
ENAGAS		16%				500
AXPO		5%				
Schedule	Start Date	End Date			Third-Party A	
Pre-Feasibility		03/2013			Considered TPA Regime	Regulated
Feasibility	01/2009	03/2013			Considered Tariff Regime	Negotiated
FEED					Applied for Exemption	No
Permitting					Exemption Granted	No
Supply Contracts FID					Exemption in entry direction	0.00%
Construction					Exemption in exit direction	0.00%
Commissioning	2025	2025				
Grant Obtention Date						

Pipelines and Compression		Diameter	Lenath	Compressor Power	Comissioning
Pipeline Section	Pipeline Comment	(mm)	(km)	(MW)	Year
TAP Expansion	TAP Expansion is built on TAP Initial Capacity by investment for additional compression at two existing compressor stations and by introducing two additional compressor stations.			275	2025
	Total			275	
	Fulfilled Criteria				
Specific Criteria Fulfill Specific Criteria Fulfill	inter alia through reducing emissions, supporting intermittent renewable generation a	ottlenecks, ir irces, supplyi	nteropera ng count	bility and system flex erparts and routes, S	kibility, Security ustainability,
Caspian Region	Expected Gas Sourcing				
	Comments about the Third-Party Access Regime				
	exempted from TPA. TAP Expansion capacity is subject to TPA and is offered to the market via market xemption for all capacity. The Tariff Exemption covers also the TAP Expansion capacity. Please see su				ligations. TAP
	Benefits				
Main Driver	Market Demand				
Main Driver Explanation	n				
Benefit Description	Benefits of TAP Expansion are an enhancement of the benefits of TAP - Initial Capacity project.				

CBCA		Financ	ancial Assistance	
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we do not plan to submit it	Grants for studies	No	
Submissin Date		Grants for studies amount	Mln EUR 0.0	
Decision Date		Grants for works	No	
Website		Grants for works amount	Mln EUR 0.0	
Countries Affected		Intention to apply for CEF	No decision yet taken	
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		

TRA-F-51	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	Trans Adriatic Pipeline (TAP) will transport natural gas from Kipoi in Greece no Italy's southern Puglia region in the province of Lecce. TAP will interconnect we secure access to the Shah Deniz natural gas field in Azerbaijan, and ties into I province of Lecce. TAP's initial capacity is 10 bcm/a and it can expand its capa- capacity will be offered to the market via market tests, from no later than star	vith TANAP, which is linked further to the East w taly's gas transportation grid operated by Snam acity up to 20 bcm/a, subject to binding market	vith systems in Turkey, to Rete Gas in the demand. The expansion
PRJ Code - PRJ Name	• · · ·		

Capacity Increments Variant For Modelling							
Point	Operator	Year	From Gas System	To Gas System	Capacity		
	Trans-Adriatic Pipeline AG	2020	GR/TAP	TR/TNP	331.00 GWh/d		
Kipi (TR) / Kipi (TAP)	Comment: GCV used for capacity calculations: 11.071 kWh/Sm3. Commercial Reverse Capacity equal to booked forward entry capacity. Information commercial reverse flow at Kipoi exit point inserted given the commercial reverse capacities provided for Melendugno.						
	Please note that validation of Kipoi as	an exit point is su	bject to further alignr	nent with adjacent TSOs.			
	Trans-Adriatic Pipeline AG	2020	TR/TNP	GR/TAP	350.00 GWh/c		
	Comm	nent: GCV used fo	r capacity calculations	: 11.071 kWh/Sm3			
Kemetini TAD (ICD	Trans-Adriatic Pipeline AG	2020	GR/TAP	BG/IGB	142.00 GWh/d		
Komotini - TAP / IGB	Comment: GCV used for capacity calculations: 11.071 kWh/Sm3.						
Malanduma IT (TAD	Trans-Adriatic Pipeline AG	2020	AL/TAP	IB-ITs	291.00 GWh/d		
Melendugno - IT / TAP	Comment: GCV used for capacity calculations: 11.071 kWh/Sm3.						
	Trans-Adriatic Pipeline AG	2020	GR	GR/TAP	142.00 GWh/d		
Nea Mesimvria	Comm This entry point is subject to		r capacity calculations of required facilities by				
	Trans-Adriatic Pipeline AG	2020	GR/TAP	GR	142.00 GWh/d		

Comment: GCV used for capacity calculations: 11.071 kWh/Sm3.

#### Nea Mesimvria

Ахро

Date

'ncremental capacity available for allocation is subject to a check of the system's capabilities and dependent on the capacity bookings in place.

Sponsors			General Information		NDP and PCI Information		
BP		20%	Promoter	Trans Adriatic Pipeline AG	Part of NDP	No ((6) others - please comment below)	
Snam		20%	Operator	Trans-Adriatic Pipeline AG	NDP Number		
			Host Country	Greece	NDP Release Date		
SOCAR		20%	Status	In Progress	NDP Website		
Fluxys		19%	Website	Project's URL	Currently PCI	Yes (7.1.3 (2020))	
Enagas		16%			Priority Corridor(s)		

5%

Schedule	Start Date	End Date	Third-Party Access Regi	Third-Party Access Regime		
Pre-Feasibility			Considered TPA Regime	Neg		
Feasibility			Considered Tariff Regime	Nego		
FEED	01/2008	03/2013	Applied for Exemption			
Permitting	09/2011	11/2018	Exemption Granted			
Supply Contracts		04/2015				
FID		12/2013	Exemption in entry direction	10		
Construction	05/2016	10/2020	Exemption in exit direction	10		
Commissioning	2020	2020				
Grant Obtention	02/08/2017	02/08/2017				

Irrent TYNDP : TYNI	DP 2020 - Annex A				Pag	ge 533 of 773
Pipelines and Compre	ssor Stations					
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissionir Year
Main onshore section		90MW=45MW Kipoi+45MW Fier	1,200	773	90	0
Offshore section			900	105		0
		Total		878	90	
		Fulfilled Criteria				
Specific Criteria Fulfille Specific Criteria Fulfille	of Supply, int inter alia thro	Dation of at least one Member State and reducing energy infra ter alia through appropriate connections and diversification of bugh reducing emissions, supporting intermittent renewable g nclosed document entitled TYNDP 2020_TAP_Justification PCI.	supply sources, supplyi eneration and enhancin	ng count	erparts and routes, S	ustainability,
		Delays since last TYNDP				
Delay Since Last TYND	Р	Delays since last TYNDP				
Delay Since Last TYND Delay Explanation	P N/A	Delays since last TYNDP				
Delay Explanation		Delays since last TYNDP Expected Gas Sourcing				
Delay Explanation			jime			
Delay Explanation Caspian Region The initial capacity is e	N/A xempted from TPA. Expansi	Expected Gas Sourcing		no later t	han start of operation	ns and
Delay Explanation Caspian Region The initial capacity is e	N/A xempted from TPA. Expansi	Expected Gas Sourcing Comments about the Third-Party Access Reg ion capacity is subject to TPA and will be offered to the marker		no later t	han start of operation	ns and
Delay Explanation Caspian Region The initial capacity is e	N/A xempted from TPA. Expansi	Expected Gas Sourcing Comments about the Third-Party Access Reg ion capacity is subject to TPA and will be offered to the marker se note enclosed the exemption related materials.		no later t	han start of operatio	ns and
Delay Explanation Caspian Region The initial capacity is e subsequently every tw	N/A xempted from TPA. Expansi o years. In this regard, pleas Market Demand	Expected Gas Sourcing Comments about the Third-Party Access Reg ion capacity is subject to TPA and will be offered to the marker se note enclosed the exemption related materials.		no later t	han start of operation	ns and

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	Intergovernmental Agreements		
Agreement	Agreement Description	Is Signed	Agreement Signature Date
Host-government agreement between TAP and Greece	The HGA is designed to fill legal, regulatory and fiscal caviats to mitigate commercial risks and thereby provide the necessary investor protection to ensure that the project is built and enable construction and operation in accordance with high standards	Yes	26/06/2013
Inter-governmental Agreements (only applicable for import pipeline projects	An IGA between Italy, Greece and Albania has formalized the state parties' support for the TAP project, ensure cross-country harmonization of standards in order to facilitate the implementation of TAP and provide the necessary investor protection measure	Yes	13/02/2013
Host-government agreement between TAP and Albania	The HGA is designed to fill legal, regulatory and fiscal caviats to mitigate commercial risks and thereby provide the necessary investor protection to ensure that the project is built and enable construction and operation in accordance with high standards	Yes	05/04/2013

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 14.0
Website		Grants for works	No
Countries Affected		Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	No decision yet taken
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	Regarding CEF, TAP project requested EUR 14 018 347 in 2016, amount which was granted. In 2017, TAP requested EUR 3 314 317, amount which was not granted. EIB funding does not qualify as a 'funding programme'.

# CNG filling station system development (CroBlueCorr project)

ETR-N-898			Project		Energy Transition Related Project	Non-FID
Update Date			10/	06/2020		Advanced
Description	of petro				tural gas filling stations (CroBlueCorr p nould be provided for 10 connections	
PRJ Code - PRJ Nam	ne -					
Sponsors			General In	formation		
			Promoter	Plinacro Ltd		
			Operator	Plinacro Ltd		
			Host Country	Croatia		
			Status	Planned		
			Website			
Schedule	Start Date	End Date				
Pre-Feasibility		03/2021				
Feasibility	04/2021	10/2021				
FEED	11/2021	04/2022				
Permitting	05/2022	12/2022				
Supply Contracts		10/2022				
FID		06/2022				
Construction	01/2023	12/2025				
Commissioning	2026	2026				
Grant Obtention Date						

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# Compressor station 1 at the Croatian gas transmission system

TRA-F-334		Project			Pipeline including	g CS	FID
Update Date			18/11/2019			A	dvanced
Description	gas delivery pressure conditions significantly increase efficience in the system, primarily in a m	ons and for development of y of the Croatian gas trans nanner to increase the flexi cities according to user ne	pening of the gas market, as we of the gas market in Croatia and smission system. Compressor st ibility of managing the existing eds, that is, the requirements of	the ne ations transm	ighbouring countries. are integral part of the ission capacities of th	Compressor stati e transmission sys e system, and to p	ons will tem, integrated provide rational
PRJ Code - PRJ Name	-						
Capacity Increments Varia	ant For Modelling	Organistan		Veer	From Cos Sustan	To Coo Sustan	Conscitu
Point Dravaszerdahely	о	Operator Plinacro Ltd		Year 2019	From Gas System HR	To Gas System HU	Capacity 13.60 GWh/d
Dravaszerdanery				2015			15.00 GWH/G
Sponsors		Genera	l Information			PCI Information	
Plinacro	100%	Promoter	Plinacro Ltd				Yes (2018-2027,
		Operator	Plinacro Ltd				5.1
		Host Country	Croatia	NDP	Release Date		15/12/2017
		Status	Planned	NDP	Website		<u>NDP URL</u>
		Website	<u>Project's URL</u>	Curre	ently PCI		Yes (6.5.5 (2020))
				Priori	ity Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	11/2014	03/2015
FEED	09/2016	05/2017
Permitting	06/2015	05/2018
Supply Contracts		01/2018
FID		12/2017
Construction	01/2018	12/2019
Commissioning	2019	2019
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment		Length (km)	Compressor Power (MW)	Comissioning Year		
CS 1				4	2019		
	Total			4			
	Fulfilled Criteria						
Specific Criteria Fulfilled	cific Criteria Fulfilled Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Securit of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas						
Specific Criteria Fulfilled Comments	Construction of such facilities is necessary due to the opening of the gas in provide sufficient transmission capacities and natural gas delivery pressure the neighbouring countries wich will have an influence on the Security of s Croatian gas transmission system. Compressor stations are integral part of manner to increase the flexibility of managing the existing transmission ca transmission capacities according to user needs, that is, the requirements of application of new legal regulation.	e conditions and for deve supply. Compressor station the transmission system pacities of the system, and	elopment ons will si n, integrated nd to pro	of the gas market in ignificantly increase e ted in the system, pri vide rational increase	Croatia and officiency of the marily in a e of		

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**Expected Gas Sourcing** 

#### LNG ()

Benefits							
Main Driver	Regulation SoS						
Main Driver Explanation Project will enable the reverse flow in all interconnection points.							
Construction of such facilities is neccessary due to the opening of the gas market, as well as providing sufficient transmission capacities delivery pressure conditions and for development of the gas market in Croatia and the neighbouring countries. Compressor stations we increase efficiency of the Croatian gas transmission system.							

CBCA			Financial Assistance		
	No, we have not submitted an investment request ye		Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit of		Grants for studies	No	
Culturization Data	n	ot	Grants for studies amount	Mln EUR 0.0	
Submissin Date			Grants for works	No	
Decision Date			Grants for works amount	Mln EUR 0.0	
Website			Intention to apply for CEF		
Countries Affected			Other Financial Assistance	No	
Countries Net Cost Bearer	Croatia;#Hunga	iry	Comments		
Additional Comments			General Comments		

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## Compressor stations 2 and 3 at the Croatian gas tranmission system

TRA-N-1057		Project		Pipeline including CS	Non-FID
Jpdate Date		2	1/09/2020		Advanced
Description	gas delivery pressure condition significantly increase efficience in the system, primarily in a m	ons and for development of the Croatian gas transminanner to increase the flexibicities according to user need	the gas market in Croatia and iission system. Compressor sta lity of managing the existing t	I as providing sufficient transmission the neighbouring countries. Compre- ations are integral part of the transmi transmission capacities of the system the market and to satisfy market cor	ssor stations will ssion system, integrated , and to provide rational
PRJ Code - PRJ Name	-				
Sponsors	2	General I	nformation	NDP and PCI Info	rmation
Plinacro	100%	Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027
		Operator	Plinacro Ltd	NDP Number	5.3 and 5.
		Host Country	Croatia	NDP Release Date	15/12/201
		Status	Planned	NDP Website	<u>NDP UR</u>
		Website	Project's URL	Currently PCI	Yes (6.26.1.3 (2020)
				Priority Corridor(s)	

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Schedule	Schedule Start Date End Date	
Pre-Feasibility		
Feasibility	06/2025	12/2025
FEED	01/2026	06/2026
Permitting	06/2025	06/2026
Supply Contracts		06/2026
FID		01/2027
Construction	01/2027	12/2029
Commissioning	2029	2029
Grant Obtention Date	25/04/2016	25/04/2016

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Compressor station 2	Project is at early stage of development. Compressor power will be determined in the feasibility phase.	0	0	10	2029
Compressor station 3	Project is at early stage of development. Compressor power will be determined in the feasibility phase.	0	0	10	2029
	Total		0	20	

Current	TYNDP	:	TYNDP	2020	-	Annex A	
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Fulfilled Criteria         Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Securit of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas         Construction of such facilities is necessary due to the opening of the gas market, wich will have an influence on the market integration. It will
lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Securit of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Construction of such facilities is percessary due to the opening of the gas market wich will have an influence on the market integration. It will
ments Croatian gas transmission system. Compressor stations are integral part of the transmission system, integrated in the system, primarily in a manner to increase the flexibility of managing the existing transmission capacities of the system, and to provide rational increase of transmission capacities according to user needs, that is, the requirements of the market and to satisfy market conditions arising from the application of new legal regulation.
Delays since last TYNDP
Expected Gas Sourcing
(HR)
Benefits
ket Demand
ects will enable the reverse flow in all interconnection point
struction of such facilities is neccessary due to the opening of the gas market, as well as providing sufficient transmission capacities and natural gas very pressure conditions and for development of the gas market in Croatia and the neighbouring countries. Compressor stations will significantly

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
	not	Grants for studies	Yes
Submissin Date		Grants for studies amount	Mln EUR 4.4
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

UGS-N-347	Project				Storage Facilit	.y <u>N</u>	Ion-FID	
Update Date		13/11/2019			Non-Adv			
Description be	perform/collect in order to	make decision to d with original gas	reasonably good candidate for gas sto build a new storage facility. Project co in place. Additional HD measurements Id be finished in 2025/26.	nsists o	f two phases. In first p	phase aditional dat	a should be	
PRJ Code - PRJ Name -								
Capacity Increments Variant For	Modelling							
Point		Operato	r	Year	From Gas System	To Gas System	Capacity	
UGS Croatia		Podzemi	no skladiste plina d.o.o.	2025	STcHR	HR	16.00 GWh/d	
		Podzemi	no skladiste plina d.o.o.	2025	HR	STcHR	23.00 GWh/d	
Sponsors			General Information		NDP and	PCI Information		
Podzemno <mark>skladiste p</mark> lina d.o.o.	100%	Promoter	Podzemno skladiste plina Lta	Deut		No ((1) the NDP was prepared at an earlier date and the project will be proposed for inclusion in the next NDF		
		Operator	Podzemno skladiste plina d.o.o.		of NDP proj			
		Host Country	Croatia		Number			
		Status	In Progress	NDP	Release Date			
		Website	<u>Project's URL</u>	NDP	Website			
				Curre	ently PCI		N	
				Prior	ity Corridor(s)		NSI	

rrent TYNDP : TY	NDP 2020 - An	nex A	
Schedule	Start Date	End Date	Third-Party Acc
Pre-Feasibility		12/2018	Considered TPA Regime
Feasibility	01/2019	06/2019	Considered Tariff Regime
FEED	07/2019	12/2019	Applied for Exemption
Permitting	01/2020	07/2020	Exemption Granted
Supply Contracts		12/2020	
FID		12/2020	Exemption in entry direction
Construction	01/2021	07/2021	Exemption in exit direction
Commissioning	2025	2025	
Grant Obtention Date	31/03/2017	31/03/2017	

	reconical information (UGS)									
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Work Volu (mc	ing Withdrawa me Capacity m) (mcm/d)	Capacity	(%)	Comments	Commisioning Year	
Grubisno Polje	Depleted Field	Yes	Phase1	60	) 2.4	1.7	90	No comment.	2025	

ation (LICC)

Fulfilled Criteria

Specific Criteria Fulfilled

Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility

Specific Criteria Fulfilled Comments

 Delays since last TYNDP

 Delay Explanation

 Comments about the Third-Party Access Regime

 Act on gas market defines regulated TPA to storage

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	Bene	fits
Main Driver	Others	
Main Driver Explanation	Consumption profiles become demanding due to consumption de working volume but withdrawal curve is unfavorable ( strong decli	ecreasing and peak consumption increasing. Existing storage facility Okoli has adequat ine after 50% of occupancy)
Benefit Description		
	Barr	iers
Barrier Type	Description	
Regulatory	Maximum allowed revenue (revenue cap)	
Permit Granting	ongoing for phase one	
Political	Project is submitted to national authority for issuing strategic state	us
Financing	Availability of funds and associated conditions	
Market	Lack of market maturity	
Financing	Amortization rates	

	CBCA	Finar	ncial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Submissin Date	not	Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bear	or	Other Financial Assistance	No
Additional Comments		Comments	
Additional Comments		General Comments	

# Interconnection Croatia/Serbia (Slobdnica-Sotin-Bačko Novo Selo)

TRA-A-70		Project			Pipeline including	g CS N	Ion-FID
Jpdate Date		18/02/	2020			A	dvanced
Description	Bačko Novo Selo (Serbia). Firs new entry point and transmis	connecting the Croatian gas trans It phase would be Negoslavci-Sot sion route for the needs of Serbia nable supply of gas from Austria,	in-Bačko Novo Selo plus ; it will be SoS and divers	the pi ificatio	peline Osijek-Vukova on of supply route for	r. It will be new int Serbia. It will enat	erconnection,
PRJ Code - PRJ Name	- //						
Capacity Increments Variant F	or Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
		Plinacro Ltd		2023	HR	RS	42.11 GWh/d
Slobodnica - Sotin (HR) / Bačko Novo Selo (RS)		Plinacro Ltd 2		2023	RS	HR	54.34 GWh/d
		Plinacro Ltd		2027	HR	RS	197.89 GWh/c
		Plinacro Ltd		2027	RS	HR	185.66 GWh/c
Sponsors		General Inforr	nation		NDP and	PCI Information	
Croatian section		Promoter	Plinacro Ltd	Part o	of NDP		Yes (2018-2027
Plinacro	100%	Operator	Plinacro Ltd	NDP	Number		1.30, 1.31, 1.22
Serbian section		Host Country	Croatia	NDP	Release Date		15/12/2017
Srbijagas	100%	Status	Planned	NDP	Website		NDP UR
		Website	<u>Project's URL</u>	Curre	ently PCI		No
				Priori	ty Corridor(s)		NSIE

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2021	01/2021
FEED	01/2021	01/2025
Permitting	01/2010	01/2025
Supply Contracts		01/2022
FID		01/2022
Construction	01/2022	01/2027
Commissioning	2023	2027
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Negoslavci-Sotin		800	10		2023
Osijek-Vukovar		500	11		2022
Slobodnica-Negoslavci		800	87		2027
Sotin- Bačko Novo Selo		800	5		2023
	Total		113		

#### **Fulfilled Criteria**

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

Expected Gas Sourcing

Caspian Region, LNG (HR), it will be gas from Croatian transport system, Croatian UGS

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	Benefits
Main Driver	Market Demand
	will integrate Serbia with the new supply route receiving gas from Croatia gas transmission system which will enable it to be supplied from all other neighbouring markets (Hungary, Austria, Italy). This project is an interconnection of the gas systems of Croatia and Serbia on the route Slobodnica-Sotin- Bačko Novo Selo and it is primarily intended for transport of LNG from the terminal on the island of Krk as well as from other possible routes and
Main Driver Explanatio	n directions towards SEE countries. The most important impacts and benefits of the project: 1) It provides viable and secure supply of SEE countries, which are heavily dependent on the Russian gas and jeopardized by the Russian giving up on the South Stream project and the announcement regarding termination of gas transmission via Ukraine after 2019 2) It provides diversification of supply (also in case the previously mentioned threats fail to occur) and thereby competitiveness and lower prices for users 3) It facilitates market integration
Benefit Description	It will be new entry point and transmission route for the needs of Serbia

CBCA		Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturization Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF		
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer		Comments		
Additional Comments		General Comments		



## Interconnection Croatia/Slovenia (Umag-Koper)

TRA-N-336	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	This pipeline is a regional link to Croatian and Slovenian system. Relevant gas p the light of the fact that these parts of Croatian and Slovenian markets are aloc also important for the competitiveness and market competition.		
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Coževile (CI) ( Pleverile (UP)	Plinacro Ltd	2029	HR	SI	16.20 GWh/d
Sečovlje (SI) / Plovanija (HR)	Plinacro Ltd	2029	SI	HR	16.20 GWh/d

Sponsors	General Information	NDP a	nd PCI Information
Plinacro 100%	Promoter Pline	acro Ltd Part of NDP	Yes (2018-2027)
	Operator Pline	acro Ltd NDP Number	1.37
	Host Country	Croatia NDP Release Date	15/12/2017
	Status A	Planned NDP Website	<u>NDP URL</u>
	Website Proje	ct's URL Currently PCI	No
		Priority Corridor(s)	

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Schedule Start Date End Date		
Pre-Feasibility		
Feasibility	01/2027	01/2027
FEED	01/2028	01/2028
Permitting	01/2026	01/2028
Supply Contracts		01/2028
FID		01/2028
Construction	01/2028	01/2029
Commissioning	2029	2029
Grant Obtention		
Date		

Pipelines and Compressor S	tations					
Pipeline Section		Pipeline Comment	Diamete (mm)	r Length (km)	Compressor Power (MW)	Comissioning Year
Umag - Plovanija (HR)- Kope	er (SI)	Croatian part is 8 km	300	8		2029
		Total		8		
		Expected Gas Sourci	ng			
Russia, LNG (HR)						
		Benefits				
Main Driver Ma	rket Demand					
Main Driver Explanation						
Benefit Description						

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	CBCA	Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturia Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF	No decision yet taken	
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer			110	
Additional Comments		Comments		
		General Comments		

TRA-A-68	Project	Pipeline including CS	Non-FID
Update Date	12/08/2020		Advanced
Description	The pipeline will cross the territory along the Adriatic coast from Fieri in Alba Croatian gas transmission system (main direction Bosiljevo – Split). The Ionia entire region. The IAP project is based on the idea of connecting the existing the TAP gas pipeline system (Trans Adriatic Pipeline). An exit to Bosnia and H the project to TYNDP on behalf of Plinacro, Montenegro Bonus and Albgaz.	n-Adriatic Pipeline will have an influence on the g Croatian gas transmission system, via Montenegi	asification for the o and Albania, with
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Ionic-Adriatic Pipeline - IAP / AB	Plinacro Ltd	2025	HR/IAP	AL	33.30 GWh/d
Ionic-Adriatic Pipeline - IAP / ME	Plinacro Ltd	2025	HR/IAP	ME	16.60 GWh/d
	Plinacro Ltd	2023	HR/IAP	HR	83.20 GWh/d
Jania Adviatia Dinalina JAD / Cality JJD	Comment: IT is Exit Croatia			7	
Ionic-Adriatic Pipeline - IAP / Split - HR	Plinacro Ltd	2025	HR	HR/IAP	116.60 GWh/d
			Comment:	It is exit to Croatio	7
	Plinacro Ltd	2025	IB-HRi/IAP	HR/IAP	166.50 GWh/d
Ionic-Adriatic Pipeline - IAP Entry		Comment: The entry pont from TAP (Fieri)		)	
	Plinacro Ltd	2025	AL/TAP	IB-HRi/IAP	166.50 GWh/d

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		ex A				rage 554 01775
Sponsors			Gene	eral Information	NDP and PCI Info	ormation
Albania			Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
Albgaz		1009	6 Operator	Plinacro Ltd	NDP Number	1.12, 1.25-1.27, 5.5
Croatia			Host Country	Croatia	NDP Release Date	15/12/2017
Plinacro		1009	Status	Planned	NDP Website	<u>NDP URL</u>
			Website	<u>Project's URL</u>	Currently PCI	No
Montenegro					Priority Corridor(s)	NSIE, SGC
Montenegro Bonus		1009	6			
Schedule	Start Date	End Date			Third-Party Acces	s Regime
Pre-Feasibility		01/2008			Considered TPA Regime	Regulated
Feasibility	05/2012	02/2014			Considered Tariff Regime	Regulated
FEED	01/2017	01/2023			Applied for Exemption	No
Permitting	07/2009	01/2023			Exemption Granted	No
Supply Contracts		01/2022				
FID		01/2022			Exemption in entry direction	0.00%
Construction	01/2022	01/2025			Exemption in exit direction	0.00%
Commissioning	2023	2025				
Grant Obtention Date						

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
IAP - Croatian part	2.5 billion m3 yearly	800	250	1	2023
IAP- Albanian part	1 billion m3 yearly	800	180		2025
IAP- Montenego part	0.5 billion m3 yearly	800	110		2025
	Total		540	1	

urrent TYNDP : TYN	NDP 2020 - Annex A	Page 555 of 77
	Fulfilled Criteria	
Specific Criteria Fulfill	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supplied appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, intermissions, supporting intermittent renewable generation and enhancing deployment of renewable gas	
Specific Criteria Fulfill	led Comments	
	Delays since last TYNDP	
Delay Since Last TYN	DP 2 years delay	
Delay Explanation	Dynamics of project implementation depends on the dynamics of TAP project implementation.	
	Expected Gas Sourcing	
Caspian Region, LNG	(HR)	
	Comments about the Third-Party Access Regime	
TPA regime is not def	fined yet	
	Benefits	
Main Driver	Others	
Main Driver Explanati	ion Gasification of Albania and Montenegro and southern part of Croatia and Bosnia and Herzegovina. Diversification of supply, Sec	urity of Supply
Benefit Description	Security of Supply, Rewerse flow, Integration of market areas (market integration benefits for Croatia and region (Albania, Monte Herzegovina and neighbouring countries), diversification of sources, diversification of routes, N-1 criteria completion on national support back-up to renewables	0
	Barriers	
Barrier Type	Description	
Regulatory	Tarrifs which depends on the Business Model	
Political	The pipeline passes by EU country and Non EU countries.	
Financing	Availability of funds and associated conditions	

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	Intergovernmer	ntal Agreements		
Agreement	Agreement Description		Is Signed	Agreement Signature Date
Memorandum of Understanding	Signed between Plinacro and TAP		Yes	05/02/2011
Ministerial declaration	signed by the Ministries of enegry of Albania, Bosnia and Herzegovina signed as well	, Montenegro and Croatia, from dezember 2008	<sup>3,</sup> Yes	27/09/2007
Agreement to extend the Memorandum of Understanding	Signed between Plinacro and TAP		Yes	25/02/2014
Letter of Itent	Signed by Plinacro, Montenegro Bonus and A	Albgaz	Yes	15/02/2018
Memorandum of Understanding and Cooperation	signed by the Ministry of Energy and Industry and Economic Relations of Bosnia and Herzeg Croatia and Ministry of Economy of Montene	26/08/2016		
CB	BCA	Financial .	Assistance	
No, we ha	ve not submitted an investment request yet,	Applied for CEF	(3) No,	we have not applied for CEF
Decision and we have	ve not yet decided whether we will submit or	Grants for studies		No
	not	Grants for studies amount		Mln EUR 0.0
Submissin Date		Grants for works		No
Decision Date		Grants for works amount		Mln EUR 0.0
Website Countries Affected		Intention to apply for CEF		
Countries Net Cost Bearer		Other Financial Assistance		Yes
Additional Comments		Comments	omprehensive Fe -Gas Ma -Gas M	VBIF - EU preaccession Fund: easibility Study – 3,5 mil EUR oster Plan MNE – 0,5 mil EUR aster Plan ALB – 1,2 mil EUR
		-Main Design	(Preliminary De	sign for MNE and ALB) - 2, 5 mil EUR
		General Comments		

		Váro	osföld CS		
rra-a-123		Project		Pipeline includin	ng CS Non-FID
Jpdate Date		1	5/08/2019		Advanced
Description	An additional compressor un along the HU section of the C		ompressor station at Városföld	l necessary to ensure adequ	uate pressure for the transportation
PRJ Code - PRJ Name	-				
PRJ Code - PRJ Name Sponsors	-	General	Information	NDP an	d PCI Information
	- 100%	<b>General</b> Promoter		NDP an Part of NDP	d PCI Information Yes (Hungarian TYNDP 2018,
Sponsors					
Sponsors		Promoter	FGSZ Ltd.	Part of NDP NDP Number	Yes (Hungarian TYNDP 2018,
Sponsors		Promoter Operator	FGSZ Ltd. FGSZ Ltd. Hungary	Part of NDP NDP Number	Yes (Hungarian TYNDP 2018) 12.10

#### Priority Corridor(s)

			Thority Conduct(3)	
Schedule	Start Date	End Date	Third-Party Access Regim	าย
Pre-Feasibility		06/2014	Considered TPA Regime	Regula
Feasibility	09/2016	07/2017	Considered Tariff Regime	Regula
FEED	12/2019	01/2020	Applied for Exemption	
Permitting	02/2020	08/2020	Exemption Granted	
Supply Contracts		05/2020		
FID		10/2019	Exemption in entry direction	0.0
Construction	09/2020	12/2022	Exemption in exit direction	0.0
Commissioning	2022	2022		
Grant Obtention Date	14/10/2016	14/10/2016		

/árosföld CS		(mm) (km)	(MW)	Year
			6	0
	Total		6	
	Fulfilled Criteria			
Specific Criteria Fulfille	Competition, inter alia through diversification of supply sources, supplying count appropriate connections and diversification of supply sources, supplying counter emissions, supporting intermittent renewable generation and enhancing deployr	parts and routes, Sustainab		
Specific Criteria Fulfille	Comments The compressor help to increase capacity of Vecsés 4 (MGT>FGSZ), Vecsés 4 (FG (HU>SK).	SZ>MGT, Balassagyarmat (	SK>HU) and Balassag	<b>y</b> armat
	Delays since last TYNDP			
Delay Since Last TYNDI Delay Explanation	0			
	Expected Gas Sourcing			
Caspian Region, Black	Sea			
	Benefits			
Main Driver	Market Demand			
Main Driver Explanatio	1			
Benefit Description	o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hung systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will en along with helping with further market integration.			

	СВСА	-	Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date	16/10/2015	Grants for studies amount	Mln EUR 2.3
Website		Grants for works	No
Countries Affected	Hungary, Romania	Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	No decision yet taken
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

A St

	Ervia Cork CCU	S	
ETR-N-22	Project	Energy Transition Related Project	Non-FID
Update Date	15/08/2019		Advanced
Description	This project will involve the development of the necessary infrastruct refinery) and two gas fired CCGTs to enable the CO2 to be transport another CCUS project developer. The import infrastructure and geol CCUS developments to reduce the risk of cross chain default or as a opportunity for the first full chain CCUS project within the European decommissioned in 2020/2021. This low pressure field on first look Further analysis will take place over the coming years to ensure that	ed either to local geological store or if unavailable to anot ogical store will also be made available as a backup storag market maker. Cork has unique attributes which combine Union. The soon to be depleted Kinsale Energy offshore g by the SEAI and GSI in 2008 looks to be a suitable reservoi	ther store managed ge facility to other to provide an gas field is due to be
PRJ Code - PRJ Name	-		

Sponsors			General Information
Ervia Cork CCUS	100%	Promoter	Ervia (parent company of Gas Networks Ireland)
		Operator	Ervia
		Host Country	Ireland
		Status	Planned
		Website	Project's URL

Schedule	Start Date	End Date
Pre-Feasibility		07/2019
Feasibility	07/2019	07/2020
FEED	07/2020	11/2022
Permitting	02/2022	05/2023
Supply Contracts		05/2023
FID		04/2024
Construction	04/2024	12/2028
Commissioning	2028	2028
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Ervia Cork CCUS	This project will involve dedicated CO2 pipelines which will transport CO2 from 3 sources initially, from the combustion of gas, for the purpose of permanent geological storage of CO2 pursuant to Directive 2009/31/EC. This will include the repurposing of existing onshore /offshore gas pipelines and the construction of new dedicated CO2 pipelines. In order to provide backup storage for other CCUS projects, will involve the facilities for liquefaction, gasification and buffer storage of CO2 at port facilities in order to prepare CO2 for transportation by ship when either importing or exporting CO2. To ensure the safe and secure operation of the CO2 infrastructure a comprehensive utility system in line with existing gas safety frameworks will be installed and operated during the lifetime of this project. This will encompass the pipeline transportation, compression, liquefaction and gasification processes. This project will store first 60MT of CO2 at a rate of 2.5 MT/yr.		2028

# GNI Renewable Gas Central Grid Injection Project

ETR-N-20	Project	Energy Transition Related Project	Non-FID
Update Date	28/10/2019		Advanced
Description	Gas Networks Ireland (GNI) has a strategic plan to achieve 20% renewable ga with the GRAZE Gas project which has been shortlisted for funding under the comprising of one Central Grid Injection (CGI) facility (for injection of agri-bas stations and a vehicle fund.	Irish Government's Climate Action Fund. This is a	pilot project
Description	The Renewable Gas Central Grid Injection Project will involve the construction centralised locations for renewable gas producers from local AD plants (withi enable the rollout of renewable gas on a national basis and contribute signifi- the national gas network.	n a 50 km radius) to inject into GNI's transmission	system. This will help
PRJ Code - PRJ Name	-		

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Gas Networks Ireland	2023	NPcIE	IE	0.50 GWh/d
		Comn	nent: Total project cap	acity of 0.5 GWh/d	
	Gas Networks Ireland	2024	NPcIE	IE	1.30 GWh/d
		Comn	nent: Total project cap	acity of 1.8 GWh/d	
	Gas Networks Ireland	2025	NPcIE	IE	2.00 GWh/d
		Comment: Total project capacity of 3.8 GWh/d			
Renewable Gas Ireland (IE)	Gas Networks Ireland	2026	NPcIE	IE	2.10 GWh/d
		Comment: Total project capacity of 5.9 GWh/d			
	Gas Networks Ireland	2027	NPcIE	IE	1.30 GWh/d
		Comment: Total project capacity of 7.2 GWh/d			
	Gas Networks Ireland	2028	NPcIE	IE	0.50 GWh/d
		Comment: Total project capacity of 7.7 GWh/d			

	General Information		
100%	Promoter	Gas Networks Ireland	
	Operator	Gas Networks Ireland	
	Host Country	Ireland	
	Status	Planned	
	Website	<u>Project's URL</u>	
	100%	100% Promoter Operator Host Country Status	

Schedule	Start Date	End Date
Pre-Feasibility		09/2019
Feasibility	10/2019	06/2020
FEED	05/2021	06/2024
Permitting	05/2021	06/2024
Supply Contracts		
FID		07/2022
Construction	08/2022	10/2025
Commissioning	2023	2028
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
GNI Renewable Gas Central Grid Injection Project	The first CGI facility will be commissioned in 2023, with an initial capacity of 0.5 GWh/d. A total of 5 CGI physical entry points will come on stream with an eventual entry capacity of 7.7 GWh/d by 2028.		2023

## Shannon LNG Terminal and Connecting Pipeline

NG-A-30		Project			LNG Termina	۱	lon-FID
Jpdate Date		12/0	9/2019			A	dvanced
Description	Shannon LNG also has obtain export pipeline to the nationa The Shannon LNG terminal is	nstruct a liquefied natural gas ( ed all of the major permits and I gas grid, pipeline rights of wa designed and permitted to exp he project will have initial deliv	l consents for the LNG project ay and foreshore leases and port to the national gas gric	ect inclu l licenses l up to 2	ding planning perm s. 26.8 million normal c	ission for the term	inal and 26 KM
PRJ Code - PRJ Name							
Capacity Increments Vari Point	ant For Modelling	Operator		Year	From Gas System	To Gas System	Capacity
		Shannon LNG		2022	LNG_Tk_IE	IE	86.00 GWh/d
			Comment: Consistent with				
		Shannon LNG		2025	LNG_Tk_IE	IE	64.00 GWh/d
Shannon LNG		Comi	ment: Cumulatively with firs	t increm		r = 480 mmscf/day	/
		Shannon LNG		2029	LNG_Tk_IE	IE	100.00 GWh/c
		Comment: Cumulat	tively with first and second in	ncremen		apx 800 mmscf/c	1
<b>C</b>		Conservables					
Sponsors Shannon LNG Ltd	100%	General Info Promoter	Shannon LNG Ltd			PCI Information as Networks Irelar	d 2019 Natwork
	100%		Shannon LNG Lta	Part of	NDP res (G		evelopment Plan
		Operator Host Country	Ireland	NDP N	lumber		, 5.
		Status	Planned		elease Date		21/12/201
		Website	Project's URL	NDP W			NDP UR
		website	Project's ORL	Curren			Yes (5.3 (2020
				Curren			162 (2.2 (2020)

Schedule Start Date End Date Pre-Feasibility 05/2006 Feasibility 09/2007 05/2006 FEED 01/2020 06/2020 Permitting 09/2007 01/2020 Supply Contracts 10/2020 FID 03/2020 04/2020 06/2022 Construction Commissioning 2022 2029 Grant Obtention Date

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Third-Party Access Regime	
Considered TPA Regime	Negotiated
Considered Tariff Regime	Negotiated
Applied for Exemption	Yes
Exemption Granted	Yes
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

			Technical Info	rmation (LN	IG)				
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Lo Year	ad Factor (%)
Shannon LNG Terminal and connecting pipeline	No	Initial	2.8	265,000	7.70	200,000	Initial	2022	100
Shannon LNG Terminal and connecting pipeline	No	Phase 2	2.1	0	5.76	0	Phase 2	2025	100
Shannon LNG Terminal and connecting pipeline	No	Phase 3	3.3	0	9.00	0	Phase 2	2029	100

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Shannon Pipeline	The pipeline is part of the core project and will conr the LNG terminal to the National Gas Grid.	nect			0
	Total				

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled	Ireland, up to 2015, imported over 90% of gas from GB – and relied on GB infrastructure to meet the N-1 standard on a regional basis. Currently this dependence is about 40% because of Corrib gas coming on stream. According to Gaslink Network Development Plan 2018, by 2026/27 Corrib gas supplies will have declined to less than 30% of initial peak production levels. The anticipated reduction in Corrib and Inch gas supplies will re-establish the Moffat Entry Point as the dominant supply point from 2018/19. The Shannon LNG project, at full capacity, would allow Ireland to pass the N-1 test enhancing security of supply. The LNG terminal will also allow for serving the Northern Ireland gas market. An LNG terminal in Ireland will also mean that, in the long term, Ireland will have two major supply import routes (i) pipeline imports from GB and (ii) LNG imports through the Shannon LNG terminal providing additional sustainability and competition in the market.
	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	Previously we indicated a construction complete date of 1/4/2022. We are currently revising this with engineers and our current estimate is 30/6/2022
and the second	
	Expected Gas Sourcing
LNG (LNG,QA,US), The w	
LNG (LNG,QA,US), The w	
	orld LNG market
Main Driver Main Driver Explanation	orld LNG market Benefits

	Barriers				
Barrier Type	Description				
Others	Project was granted extension of planning permission by the Planning Authority (An Bord Pleanala) - but was then subject to Judicial Review taken by an environmental group.				
Regulatory	Low rate of return				
Regulatory	Lack of proper transposition of EU regulation				
Financing	Availability of funds and associated conditions				

	CBCA	Final	ncial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	but we do plan to submit it	Grants for studies	No
Submissin Date	01/04/2020	Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
	Shannon LNG did receive a CBCA decision in connection	Comments	
Additional Comments	with the early build of the Shannon Pipeline. The CBCA involved agreement by the CRU in Ireland, Utility Regulator in Northern Ireland and Ofgem in the UK.	General Comments	

Additiona	I Southern	develo	pments

TRA-N-9	Project Pipeline including CS	Non-FID
Update Date	17/09/2020	Non-Advanced
Description	The project consists in new on-shore and off-shore pipelines and in development of compressor stations along the center the increase of transport capacity at new or existing Entry Points in south Italy.	south of Italy to permit
PRJ Code - PRJ Name		

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Snam Rete Gas S.p.A.	2034	IB-ITs	IT	264.00 GWh/d
Italy Mezzogiorno Import Fork	Comment: Considering that the pror to its national development pl r	an, ENTSOG conside		ent as relevant for	
	Snam Poto Cas Sin A	2034	IB-ITi	IB-ITs	264.00 GWh/d
	Snam Rete Gas S.p.A.	2034			,

Sponsors			General Information	N	DP and PCI Information
Snam Rete Gas s.p.a.	100%	Promoter	Snam Rete Gas S.p.A.	Part of NDP	Yes (Snam Rete Gas TYNDP 2017-2026)
		Operator	Snam Rete Gas S.p.A.	NDP Number	RN_07
		Host Country	Italy	NDP Release Date	30/11/2018
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website	Project's URL	Currently PCI	No
				Priority Corridor(s)	

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Schedule	Start Date	End Date	Third-Party Access Regi
e-Feasibility			Considered TPA Regime
easibility			Considered Tariff Regime
EED			Applied for Exemption
Permitting			Exemption Granted
Supply Contracts			
ID			Exemption in entry direction
Construction			Exemption in exit direction
Commissioning	2034	2034	
Grant Obtention			
ate			

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Section 1		800	255	0	0
Section 2		1,050	115	0	0
Section 3		1,200	590	0	0
Section 4		0	0	60	0
	Total		960	60	

	Benefits	
Main Driver	Market Demand	
Main Driver Explanation	n	
Benefit Description	Security of Supply, Market integration, Diversification of sources, N-1 National (ITALY), Back-up for rene of competition), Flexibility of the system.	ewables, Power-to-gas, Market Integration (Increase

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	CBCA	Financia	al Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

## Biomethane productions interconnection

TRA-N-1265	Project	Pipeline including CS	Non-FID
Update Date	17/09/2020		Non-Advanced
Description	The project consists of the interconnections of the new biomethane productions to existi 2022.	ng Snam Rete Gas network that will	be commissioned until
PRJ Code - PRJ Name	-		

<b>Capacity Increments Variant For Mode</b>	lling						
Point		Operate	or	Year	From Gas System	To Gas System	Capacity
Forecast Production Italia		Snam R	ete Gas S.p.A.	2022	NPcIT	IT	39.60 GWh/d
Sponsors			General Information		NDP and	PCI Information	
Snam Rete Gas S.p.A.	100%	Promoter	Snam Rete Gas S.p.A			s (en-year developi	ment plan of the
		Operator	Snam Rete Gas S.p.A	Part of I	NDP natu	ral gas transmissio	
		Host Country	Italy		una la la vi		2027)
		Status	Planned				NA
		Website		NDP Re	lease Date		30/11/2018
				NDP We	ebsite		<u>NDP URL</u>
				Current	ly PCI		No

Priority Corridor(s)

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
All the project	The present information represent the aggregate of all the interconnections that compose the project	100	21		2022
	Total		21		

	B	Benefits
Main Driver	Market Demand	
Main Driver Explana	tion	
Main Driver Explana Benefit Description		

	CBCA	Financial Assistance	
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

		CNG and L-CNG stations		
ETR-F-516		Project	Energy Transition Related Project	FID
Update Date		15/09/2020		Advanced
Description		opment of about 150 CNG and L-CNG stations a	along Italy in order to facilitate the energy transi	ition in the transpo
	sector			

General mormation			sponsors
Snam4mobility	Promoter	100%	Snam4Mobility S.p.A.
Snam4Mobility S.p.A.	Operator		
Italy	Host Country		
In Progress	Status		
<u>Project's URL</u>	Website		



	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
All the project	The 150 CNG and L-CNG stations will be able to GWh/y	deliver up to 910	2022

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# Development for new import from the South (Adriatica Line)

TRA-N-7		Project			Pipeline includir	ng CS 🛛 🛽	Non-FID
Update Date		17/09/	2020			Nor	-Advanced
	consists in new o kisting Entry Point	n-shore pipeline and compressor is in south Italy.	station along the center	r-south	of Italy that will allo	w the increase of tr	ansport capacity
PRJ Code - PRJ Name -							
Capacity Increments Variant For Modellin	g				5 6 6 4	<b>T C C i</b>	<i>c</i> ::
Point		Operator		Year	From Gas System	2	Capacity
Italy Mezzogiorno Import Fork		Snam Rete Gas S.p.A.		2026	IB-ITs	IT	264.00 GWh/
Sponsors		General Infor	nation		NDP an	d PCI Information	
Snam Rete Gas s.p.a.	100%	Promoter	Snam Rete Gas S.p.A.		Ye	s (Ten-year develop	ment plan of the
		Operator	Snam Rete Gas S.p.A.		of NDP nat	ural gas transmissio	on network 2018
		Host Country	, Italy				202
		Status	Plannea	NDP	Number		RN_C
		Website	Project's URL	NDP	Release Date		30/11/201
		Website	<u>FTOJECI S OKL</u>	NDP	Website		<u>NDP UR</u>
				Curre	ntly PCI		Yes (7.3.4 (2020
				Priori	ty Corridor(s)		

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Schedule	Start Date	End Date	Third-Party Access Regime	
Pre-Feasibility			Considered TPA Regime	Regula
Feasibility			Considered Tariff Regime	Regula
FEED	01/2009	05/2011	Applied for Exemption	
Permitting	01/2009	09/2023	Exemption Granted	
Supply Contracts		09/2023		
FID		01/2021	Exemption in entry direction	0.0
Construction	09/2023	01/2026	Exemption in exit direction	0.00
Commissioning	2026	2026		
Grant Obtention Date				

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Adriatica Line		1,200	430	33	2026
	Total		430	33	
	Fulfilled Criteria				

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments please find enclosed

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		Benefits
Main Driver	Others	
Main Driver Explanation		
Benefit Description	Security of supply, diversification of sou	rces, diversification of routes, N-1 National (Italy), back-up for renewables, power-to-gas, market Integration

(Increase of competition) and flexibility of the system.

	CBCA	Finar	icial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	Yes
Additional Comments		Comments	
		General Comments	

# Export to Malta TRA-N-1063 Project Pipeline including CS Non-FID Update Date 17/09/2020 Advanced Description The project consists of the creation of an infrastructure that allows an export capacity from Italy to Malta of about 5 Mcm/day PRJ Code - PRJ Name

	Operator		Year From C	Gas System	To Gas System	Capacity	
				Jus System	TO Gas System	Capacity	
	Snam Rete C	Gas S.p.A.	2024	IT	IB-ITs	56.00 GWh/d	
	Ge	neral Information		NDP and	PCI Information		
100% Pr	romoter	Snam Rete Gas S.p.A.					
0	perator	Snam Rete Gas S.p.A.	Snam Rete Gas S.p.A. Part of NDP		earlier date and the project will be		
Н	ost Country	Italy		prop	osea for inclusion	In the next NDP)	
St	tatus	Planned					
W	/ehsite		NDP Release D	Date			
			NDP Website				
			Currently PCI			No	
			Priority Corride	or(s)		SGC	
	O H St		OperatorSnam Rete Gas S.p.A.Host CountryItalyStatusPlanned	100%PromoterSnam Rete Gas S.p.A.Part of NDPOperatorSnam Rete Gas S.p.A.Part of NDPHost CountryItalyStatusPlannedWebsiteNDP Release DNDP WebsiteCurrently PCI	100%PromoterSnam Rete Gas S.p.A.Part of NDPOperatorSnam Rete Gas S.p.A.Part of NDPpropHost CountryItalyNDP NumberStatusPlannedNDP Release DateWebsiteNDP Website	100%PromoterSnam Rete Gas S.p.A.No ((1) the NDP was earlier date and the proposed for inclusion of NDP Number100%ItalyNDP Number100%NDP Release DateNDP Website100%ItalyNDP Number100%NDP NumberNDP Release Date100%NDP WebsiteNDP Website100%NDP NumberNDP Number	

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Schedule	Start Date	End Date
Pre-Feasibility		12/2015
Feasibility	04/2017	12/2017
FEED	09/2020	12/2022
Permitting	09/2020	12/2022
Supply Contracts		01/2022
FID		09/2020
Construction	01/2023	01/2024
Commissioning	2024	2024
Grant Obtention		
Date		

Pipelines and Compressor Station	s				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
all the project	The project is related to the realization of few meters of pipeline and of a regulation plant				2024
	Total				
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterpart lifting the isolation of at least one Member State and reducing energy infrastructure bo of Supply, inter alia through appropriate connections and diversification of supply sour inter alia through reducing emissions, supporting intermittent renewable generation ar	ottlenecks, ir ces, supplyi	nteropera ng counte	bility and system flex erparts and routes, Su	ibility, Security ustainability,
Specific Criteria Fulfilled Comments	5				

Market Demand

Main Driver

Main Driver Explanation

Benefit Description

	CBCA	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

Benefits

TRA-A-12	Project	Pipeline including CS	Non-FID
Update Date	11/10/2019		Advanced
Description	Gas pipeline project aiming to create a new link between Algeria and Italy transporting 8 billions mc of gas. From El Kala (Koudiet Draouche) in Alge 2.800 m of depth getting to Porto Botte in Sardinia (which will be the ent Network). From Porto Botte an onshore section will cross Sardinia toward finally bring the long awaited gas to Sardinian users and thus remove the of the pipeline will cross the Tyrrhenian Sea at around 800 m of depth to existing Rete Nazionale Gasdotti of Snam Rete Gas.	eria an offshore section will cross the Mediterranean cry point in the Italian RNG - Rete Nazionale Gasdott ds Olbia in the north of the island (with 39 offtake po e isolation of Sardinia from RNG). From Olbia then ar	Sea going down to i or Gas National bint along the route to nother offshore sectio

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Galsi S.p.A.	2022	DZ	DZi/GAL	258.00 GWh/d
Koudiet Eddraouch (Galsi) (DZ)		Comn	nent: Entry of GALSI In Increment is equ	ternational Sectior vivalent to 8 bcm/y	
	Galsi S.p.A.	2022	ITs	ITn/GAL	258.00 GWh/d
Olhia (Calsi)		Comi	ment: Increment is equ	uivalent to 8 bcm/y	/
Olbia (Galsi)	Galsi S.p.A.	2022	ITn/GAL	ITs	32.00 GWh/d
			Comment: Equ	uivalent to 1 bcm/y	/
Diamhina (Calai)	Galsi S.p.A.	2022	ITn/GAL	IB-ITs	226.00 GWh/d
Piombino (Galsi)			Comment: Equ	uivalent to 7 bcm/y	/
	Galsi S.p.A.	2022	DZi/GAL	ITs	258.00 GWh/d
Porto Botte (Galsi)		Com	ment: Exit of GALSI In Increment is equ	ternational Sectior vivalent to 8 bcm/y	

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						1 age 504 01 775
Sponsors				General Information	NDP and P	CI Information
Sonatrach		479	6 Promoter	Galsi S.p.A.	Part of NDP	Yes (SNAM NDP 2018-2027 )
Edison SpA		239	Operator	Galsi S.p.A.	NDP Number	n.a.
			Host Country	Italy	NDP Release Date	31/12/2018
Enel Produzione Sp	A	179	6 Status	Planned	NDP Website	<u>NDP URL</u>
Hera SpA		119	6 Website	Project's URL	Currently PCI	No
					Priority Corridor(s)	NSIW
Schedule	Start Date	End Date			Third-Party	Access Regime
Pre-Feasibility					Considered TPA Regime	Not Applicable
Feasibility	01/2006	12/2006			Considered Tariff Regime	Not Applicable
FEED	01/2007	12/2010			Applied for Exemption	Not Relevant
Permitting	07/2008	11/2018			Exemption Granted	Not Relevant
Supply Contracts		11/2020				
FID		11/2020			Exemption in entry direction	0.00%
Construction	12/2020	12/2022			Exemption in exit direction	0.00%
Commissioning	2022	2022				
Grant Obtention Date	13/08/2010	13/08/2010				

Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
GALSI International Section		The GALSI International Section includes a compression station on the Algerian coast (3x33 MW) and a gas sealine from Algerian coast to South Sardinia coast (Porto Botte, near Cagliari)	660	288	99	0
GALSI Italian Section 1 onshor	re pipeline crossing Sardinia	The GALSI National Section will become integral part of the Italian National Gas Network, with the Entry Point located at the landfall of the sealine from Algeria in South Sardinia coast (Porto Botte). In Sardinia the project foresees 39 offtake points.	1,219	285		0
GALSI Italian Section 2 sealine	sardinia - Tuscany	This section includes a 285 km sealine from Olbia (Sardinia) - where it will be realized a 2x26 MW compression station - to Piombino (Tuscany) and 3 km onshore pipeline in Tuscany up to the interconnection with existing Snam gas newtwork.	812	288	52	0
	Тс	otal		861	151	
		Fulfilled Criteria				
·	appropriate connections emissions, supporting in	arough diversification of supply sources, supplying counterpart and diversification of supply sources, supplying counterparts a termittent renewable generation and enhancing deployment o	and routes, S	Sustainab		
	appropriate connections emissions, supporting in	arough diversification of supply sources, supplying counterpart and diversification of supply sources, supplying counterparts a	and routes, S	Sustainab		
Specific Criteria Fulfilled Specific Criteria Fulfilled Comn Delay Since Last TYNDP	appropriate connections emissions, supporting in	rough diversification of supply sources, supplying counterpart and diversification of supply sources, supplying counterparts a termittent renewable generation and enhancing deployment o	and routes, S	Sustainab		
Specific Criteria Fulfilled Comn Delay Since Last TYNDP	appropriate connections emissions, supporting in ments	rough diversification of supply sources, supplying counterpart and diversification of supply sources, supplying counterparts a termittent renewable generation and enhancing deployment o	and routes, S	Sustainab		
Specific Criteria Fulfilled Comm	appropriate connections emissions, supporting in ments	rough diversification of supply sources, supplying counterpart and diversification of supply sources, supplying counterparts a termittent renewable generation and enhancing deployment o	and routes, S	Sustainab		
Specific Criteria Fulfilled Comn Delay Since Last TYNDP	appropriate connections emissions, supporting in ments	arough diversification of supply sources, supplying counterpart and diversification of supply sources, supplying counterparts a termittent renewable generation and enhancing deployment o Delays since last TYNDP	and routes, S	Sustainab		

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	Benefits			
Main Driver	Market Demand			
Main Driver Explanation	The project has been developed from its start on the basis of the prospected timing of European gas demand growth.			
Benefit Description	- The Galsi project will improve security of supply in Italy and Europe, providing for a new and more efficient route for Algerian gas to reach the centre of Italian gas consumption (located in northern Italy) and further on the northern European markets. In the longer term, with the development of new projects interconnecting different gas sources in Africa (e.g. new Algerian shale gas or TSGP project for Nigerian gas), the Galsi pipeline could provide a highly strategic diversification of gas supply routes to European markets and their supply flexibility The Galsi project will contribute to the creation of an Italian gas hub for gas supply to Europe which, through the increase of gas liquidity, will enable the export of major gas volumes from Italy to other European markets through the development of reverse flow capacities Reduction of GHG emissions; the Galsi project complies with sustainable development guidelines, i.e. the promotion of the substitution of high pollutant fo			
	Barriers			
Barrier Type	Description			
Regulatory	The Italian Section of the project will be ruled under the Italian regulatory framework. The International Section (from Algeria to Italian territorial waters in Sardinia) will be build and operated by Galsi as an independent operator with a tariff agreed between the Company and shippers.			
Permit Granting	Permitting process (involved inter alia 2 regions, 9 provinces and 40 townships) substantially completed: environmental permits obtained in 2011 and Authorization Decree by the Ministry of the Economic Development needs only final approval of Tuscany.			
Market	The persistent uncertainties in the market scenarios make more complex the finalisation by the Shareholders of the commercial framework of the project, i.e. the definition of suitable terms and conditions for the gas supply and gas transportation agreements, which represents an essential piece for the final investment decision.			
Financing	EEPR funds for 120 millions euros were granted by the European Commission with decision on 13th August 2010. This grant was then cancelled with decision on 26th September 2014. Future availability of new European Commission funds would be a key issue for the success of the project.			
	Intergovernmental Agreements			
Agreement	Agreement Description Is Signed Agreement Signature Dat			
Italy – Algeria Inter-Gove Agreement for Galsi pro				

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	CBCA	Financia	l Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturing Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	
Countries Net Cost Beare	r		No
Additional Comments		Comments	
		General Comments	

TRA-N-1227 Jpdate Date							
Jpdate Date		Project		Pipel	ine includin	<u> </u>	Ion-FID
		28/09/					-Advanced
Description	The project consists of the up Gwh/day).	ograding of Gorizia plant in order	to increment the firm bio	directional ca	pacity of the p	oint up to 6 MScm	ı/day (64.74
PRJ Code - PRJ Name	-						
Capacity Increments Variant F	or Modelling						
Point		Operator			n Gas System	To Gas System	Capacity
Gorizia (IT) /Šempeter (SI)		Snam Rete Gas S.p.A.		2026	IT	SI	17.30 GWh/
		Snam Rete Gas S.p.A.		2026	SI	IT	44.30 GWh/
Sponsors		General Inform	nation		NDP and	d PCI Information	
Snam Rete Gas S.p.A.	100%	Promoter	Snam Rete Gas S.p.A.			(Ten-year develop	
		Operator	Snam Rete Gas S.p.A.	Part of NDF	p natu	ural gas transmissic	n network 20 20.
		Host Country	Italy	NDP Numb	er		RN_
		Status	Planned	NDP Releas			30/11/20
		Website	<u>Project's URL</u>	NDP Websi			NDP L
				Currently P	CI		Yes (6.23 (202
				Priority Cor	ridor(s)		

rent TYNDP : TYND	P 2020 - Ann	ex A		Page 589 of 773
Schedule	Start Date	End Date	Third-Party Access Regi	ime
Pre-Feasibility		01/2021	Considered TPA Regime	Regulatea
easibility	01/2021	01/2021	Considered Tariff Regime	Regulated
EED	01/2022	01/2022	Applied for Exemption	No
ermitting	01/2023	01/2023	Exemption Granted	No
upply Contracts		01/2024		
ID		01/2021	Exemption in entry direction	0.00%
Construction	01/2024	01/2024	Exemption in exit direction	0.00%
ommissioning	2026	2026		
Grant Obtention Date				
			Fulfilled Criteria	
pecific Criteria Fulfillec pecific Criteria Fulfillec	lif ot in	ting the isolation of at least one Member Supply, inter alia through appropriate of	tion of supply sources, supplying counterparts and routes, Market Integration, interer State and reducing energy infrastructure bottlenecks, interoperability and system connections and diversification of supply sources, supplying counterparts and route porting intermittent renewable generation and enhancing deployment of renewab	n flexibility, Security es, Sustainability,

Benefits				
Main Driver	Market Demand			
Main Driver Explanation	n			
Benefit Description	The project Increases the flexibility and diversification of routes and gas sources and increment the SOS of region and Italian system (N-1).			

	CBCA	Finance	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

PSV

	Green Crane - Ital	/			
ETR-N-958	Project	Er	ergy Transition Re Project	elated N	lon-FID
Update Date	21/09/2020			Ac	dvanced
Description	Green Crane is a joint initiative by SNAM and Enagás to deploy renewa as well as export routes to North and Central Europe. In Italy, it comprise includes the decarbonization of steel production processes in Lombard development. All hubs foresee a certain amount of hydrogen to be ble directly in industry and mobility projects. The asset readiness will be a	ses the regional hubs c lia Region, blending of nded in the natural gas	of Puglia, Sardinia and S hydrogen for industria s grid (up to 10 % or m	Sicily. The Green C al uses and an HRS	Crane Italy also S network
PRJ Code - PRJ Name	-				
Capacity Increments Varia	Int For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
	SNAM S.p.A.	2025	IT	IT	1.00 GWh/c

	SIVAIVI S.P.A.	2025	11	11	1.00 G
	Comment: Increment refers only to hydrogen	injected into the g	rid (potential ad	lditional volumes	
			C	ould be available)	

Sponsors		General In	formation
Snam	100%	Promoter	Snam
		Operator	SNAM S.p.A.
		Host Country	Italy
		Status	Planned
		Website	

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Commissio

ning Year 2025

Schedule	Start Date	End Date		
re-Feasibility		03/2020		
easibility				
EED				
ermitting				
Supply Contracts				
ID				
onstruction				
ommissioning	2025	2025		
irant Obtention				
Date				
			Technical Information (ETR)	
Section/Phase Name			Main Technical Parameters	Technical Information Co

# Import developments from North-East

TRA-N-8	Project Pipeline	e including CS Non-FID
Update Date	17/09/2020	Non-Advanced
Description	The project consists in new on-shore pipeline and in a new compressor station in the north east of Italy at new or existing Entry Points in that area.	to permit the increase of transport capacity
PRJ Code - PRJ Name		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Snam Rete Gas S.p.A.	2034	IB-ITn	IT	340.00 GWh/d
New IP North-East Italy	Comment: Considering that the pro		, ,	0	

to its national development plan, ENTSOG considers the capacity increment as relevant for modelling purposes in the final year of the publication (2035).

Sponsors		General Ir	nformation	N	DP and PCI Information
Snam Rete Gas s.p.a.	100% Promot	er	Snam Rete Gas S.p.A.		Yes (Ten-year development plan of the
	Operat	or	Snam Rete Gas S.p.A.	Part of NDP	natural gas transmission network 2018
	Host Co	ountry	Italy		2027
	Status		Planned	NDP Number	RN_06
	Websit	2	Project's URL	NDP Release Date	30/11/2018
		-	<u></u>	NDP Website	NDP URL
				Currently PCI	No
				Priority Corridor(s)	

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Schedule	Start Date	End Date	Third-Party Access Regi
-Feasibility			Considered TPA Regime
asibility			Considered Tariff Regime
ED			Applied for Exemption
ermitting			Exemption Granted
upply Contracts			
D			Exemption in entry direction
onstruction			Exemption in exit direction
ommissioning	2034	2034	
rant Obtention			
ite			

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Section 1		1,050	15	0	0
Section 2		1,400	119	0	0
Section 3		0	0	75	0
	Total		134	75	

	Benefits	
Main Driver	Market Demand	
Main Driver Explanation	ion	
Benefit Description	Security of Supply, Market integration, Diversification of sources, Diversification of rou Market Integration (Increase of competition), Flexibility of the system.	utes, N-1 National (Italy), Back-up for renewables, Power-to-gas

	CBCA	Finance	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

# Interconnection with production in Gela

TRA-F-1241	Project	Pipeline including CS	FID
Update Date	17/09/2020		Advanced
Description	The project consists of a pipeline that will allow the interconnection of a new indig	enous production in Sicily near Gela.	
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling							
Point		Operat	or	Year From	m Gas System	To Gas System	Capacity
IT - Indigenous Production		Snam F	lete Gas S.p.A.	2020	NPcIT	IT	45.00 GWh/d
Sponsors			General Information		NDP and	PCI Information	
Snam Rete Gas S.p.A.	100%	Promoter Operator Host Country	Snam Rete Gas S.p.A Snam Rete Gas S.p.A Italy	. Part of NDF		(Ten-year develop) ral gas transmissic	
		Status Website	In Progress	NDP Numb	se Date te Cl		RN_17 30/11/2018 <u>NDP URL</u> No

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2017	05/2017
FEED	09/2017	09/2018
Permitting		
Supply Contracts		
FID		09/2017
Construction	09/2019	04/2020
Commissioning	2020	2020
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
all the project	The project consists of the realization of 500 meter pipeline	500	1	0	2020
	Total		1	0	

Benefits				
Main Driver	Others			
Main Driver Explanation	on			
Main Driver Explanation Benefit Description				

	CBCA	Finance	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

TRA-N-354		Project		Pipeline inc	cluding CS	N	on-FID
Update Date		17/09/	2020			Non-	Advanced
Description	In line with the expected incre national network of San Dorli	ease in gas consumption in the ar go della Valle.	ea of Koper (SLO), the pr	oject foresees new c	apacity at the ne	w exit poi	nt of the
PRJ Code - PRJ Name	-						
Capacity Increments Varian	t For Modelling						
Point		Operator		Year From Gas S	ystem To Gas	System	Capacity
San Dorligo della Valle (IT)	/Osp (SI)	Snam Rete Gas S.p.A.		2023 IT	5	51	3.60 GWh/
Sponsors		General Inform	mation	N	DP and PCI Info	rmation	
Snam Rete Gas s.p.a.	100%	Promoter Operator Host Country Status Website	Snam Rete Gas S.p.A. Snam Rete Gas S.p.A. Italy Planned <u>Project's URL</u>	Part of NDP NDP Number NDP Release Date NDP Website Currently PCI Priority Corridor(s)	Yes (Ten-yea natural gas tr		

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Start Date	End Date	Third-Party Access Regin	ne
		Considered TPA Regime	Regulat
		Considered Tariff Regime	Regulat
01/2020	01/2020	Applied for Exemption	1
01/2021	01/2022	Exemption Granted	1
	01/2022		
	01/2020	Exemption in entry direction	0.00
01/2022	01/2022	Exemption in exit direction	0.00
2023	2023		
	01/2021 01/2022	01/2021 01/2022 01/2022 01/2020 01/2022 01/2022	01/2020       01/2020       Applied for Exemption         01/2021       01/2022       Exemption Granted         01/2022       01/2020       Exemption in entry direction         01/2022       01/2022       Exemption in exit direction

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
all the project		250	6	0	2023
	Total		6	0	

		Benefits
Main Driver	Market Demand	
Main Driver Explan	ation	
Benefit Description		

CBCA		Financial Assistance			
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we do not plan to submit it	Grants for studies	No		
Submissin Date		Grants for studies amount	Mln EUR 0.0		
Decision Date		Grants for works	No		
Website		Grants for works amount	Mln EUR 0.0		
Countries Affected		Intention to apply for CEF	No decision yet taken		
Countries Net Cost Bearer		Other Financial Assistance	No		
Additional Comments		Comments			
		General Comments			

		Italy-Sardinia Vir	tual Pipeline				
LNG-N-304		Project			LNG Termina	I N	Ion-FID
Update Date		17/09/	2020			A	dvanced
Description	cm) and the upgrade of the F	eation of a virtual connection betw Panigaglia LNG Regasification plar ew sorurce in the energy market of	t with reloading facilitie	es. The projec	ct gives to Sardi	nia customers the	
PRJ Code - PRJ Name Capacity Increments Varia	-						
Point		Operator		Year Fro	om Gas System	To Gas System	Capacity
Sardinia LNG	1						Capacity
		Snam Rete Gas S.p.A.		2021	LNG_Tk_ITs	ITs	50.00 GWh/
Sponsors		Snam Rete Gas S.p.A. General Inforr	nation	2021			
Sponsors Snam Rete Gas S.p.A.	100%		nation Snam S.p.A. Snam Rete Gas S.p.A. Italy Planned	Part of ND	NDP and N DP prop ber ase Date	ITs	50.00 GWh/o s prepared at a ne project will b

Priority Corridor(s)

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Schedule	Start Date End Date Thi	
Pre-Feasibility		12/2019
Feasibility	01/2019	12/2019
FEED	01/2020	01/2020
Permitting	01/2020	12/2020
Supply Contracts		12/2020
FID		01/2020
Construction	01/2021	12/2021
Commissioning	2021	2021
Grant Obtention		
Date		

		Technical Information (LN	IG)			
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Load Factor Year (%)
Panigaglia LNG plant	Yes Virtual pipe	0.0 0	0.00	0	0	2021 100

Pipeline Section	Pipe	line Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
All the project	carrie Panio infra	project is about the construction of 2 LNG small size er (8000 liquid cm) and reloading facility of the gaglia LNG Regasification plant. These structures will be used to create a virtual connection to supply the market of Sardinia				0
	Total					
		Expected Gas Sourcing				

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		Benefits	
Main Driver	Market Demand		
Aain Driver Explanatio	n		
Renefit Description			

	CBCA	Financial Assistance			
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we do not plan to submit it	Grants for studies	No		
Submissin Date		Grants for studies amount	Mln EUR 0.0		
Decision Date		Grants for works	No		
Website		Grants for works amount	Mln EUR 0.0		
Countries Affected		Intention to apply for CEF			
Countries Net Cost Bearer		Other Financial Assistance	No		
Additional Comments		Comments			
		General Comments			

# Larino - Chieti

TRA-F-409	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	Construction of 113 km 24" LARINO-CHIETI linking the provinces of Campole Sangro. The proget forsee realisation of a Gas Tranportation system on Adriatic coas - ensure the security of service on the current backbone (which will undergo over the coming decades; - avoid congestion in this section and meet capacity increases in relation to a	t that will: a progressive reduction in operating pressures du	
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Larino (IT)	Società Gasdotti Italia	2022	ITg	IT	53.00 GWh/d

Sponsors	General Information		NDP and	d PCI Information
	Promoter	SGI S.p.A:	Part of NDP	Yes (LARINO-CHIETI)
	Operator	Società Gasdotti Italia	NDP Number	5712
	Host Country	Italy	NDP Release Date	30/09/2018
	Status	In Progress	NDP Website	<u>NDP URL</u>
	Website	Project's URL	Currently PCI	No
			Priority Corridor(s)	

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Schedule	Start Date	End Date
Pre-Feasibility		06/2012
Feasibility	03/2013	11/2013
FEED	01/2014	11/2014
Permitting	12/2014	06/2018
Supply Contracts		03/2019
FID		06/2017
Construction	04/2019	06/2022
Commissioning	2022	2022
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Larino - Chieti		600	113		2021
	Total		113		

**Expected Gas Sourcing** 

The project in an internal connection of existing network

Benefits					
Main Driver	Regulation SoS				
Main Driver Explanation	The proget forsee : - ensure the security of service on the current backbone (which will undergo a progressive reduction in operating pressures due to obsolescence) over the coming decades; - avoid congestion in this section and meet capacity increases in relation to changes in demand;				
Benefit Description					

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CBCA		Financia	Financial Assistance	
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturin Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF	No, we do not plan to apply	
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer		Comments	100	
Additional Comments				
		General Comments		

NATION COLOR	NA C	
Matagiola -	Massafra	pipeline

		Matagiola - Mas	safra pipeline				
TRA-N-1195		Project		Р	ipeline includin	g CS	Non-FID
Update Date	17/09/2020		/2020			Noi	n-Advanced
Description	The new Matagiola - Massafra pipeline will allow the increment of the maximum cap increasing the overall capacity of the system from the South.			city of the	e Puglia entry point	s up to 74 MScm/	/d without
PRJ Code - PRJ Name	-						
Capacity Increments Variant	For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Melendugno - IT / TAP		Snam Rete Gas S.p.A.		2026	AL/TAP	IB-ITs	310.00 GWh/
Otranto - IT / IGI Poseidon		Snam Rete Gas S.p.A.		2026	GR/IGI	IB-ITs	310.00 GWh/
Sponsors		General Infor	rmation		NDP and	d PCI Information	
Snam Rete Gas S.p.A.	100%	Promoter	Snam Rete Gas S.p.A.		Yes	(Ten-year develo	oment plan of th
		Operator	Snam Rete Gas S.p.A.	Part of NDP natu		tural gas transmission network 201	
		Host Country	Italy				202.
		Status	Planned				RN_0
		Website	Project's URL	NDP R	elease Date		30/11/201
			<u></u>	NDP W	/ebsite		<u>NDP UF</u>
				Curren	tly PCI		Yes (7.3.4 (2020

Priority Corridor(s)

Current	<b>TYNDP</b>	P: TYNDP	2020 -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2019
Feasibility	01/2020	12/2020
FEED	01/2021	01/2022
Permitting	01/2022	06/2024
Supply Contracts		06/2024
FID		01/2021
Construction	06/2024	01/2026
Commissioning	2026	2026
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km) 80	Compressor Power (MW)	Comissioning Year 2026
Matagiola - Massafra		1,400			
	Total		80		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, sup lifting the isolation of at least one Member State and reducing ener of Supply, inter alia through appropriate connections and diversifica inter alia through reducing emissions, supporting intermittent renev	gy infrastructure bottlenecks, i ation of supply sources, supply	nteropera ing count	bility and system flex erparts and routes, Su	ibility, Security ustainability,
	5 5 7 11 5	0		J	

		Benefits	
Main Driver	Market Demand		
Main Driver Explanat	tion		
Benefit Description	Security of supply, competitiveness, F	lexibility of the system.	

	CBCA	Financial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we do not plan to submit it	Grants for studies	No	
Submissin Date		Grants for studies amount	Mln EUR 0.0	
Decision Date		Grants for works	No	
Vebsite		Grants for works amount	Mln EUR 0.0	
Countries Affected		Intention to apply for CEF	No decision yet taken	
Countries Net Cost Bearer		Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		

			Microl	iquefaction plants			
ETR-N-528			Project		Energy Transition Related Project	Non-FID	
Update Date				16/09/2020		Advanced	
Description				obility by realizing 2 microliquefaction to enable Bio-LNG use in the tran	on plants that would be used to fuel h	neavy transport also in	
PRJ Code - PRJ Nam		ector. The project with					
Sponsors			Gene	eral Information			
Snam4mobility		100%	Promoter	Snam4mobility			
	1		Operator	Snam4Mobility S.p.A.			
			Host Country	Italy			
			Status	In Progress			
			Website				
Schedule	Start Date	End Date					
Pre-Feasibility		12/2019					
Feasibility	01/2019	12/2019					
FEED	01/2020	12/2021					
Permitting	01/2020	12/2021					
Supply Contracts		06/2020					
FID		01/2020					
Construction	01/2020	01/2022					
Commissioning	2022	2022					
Grant Obtention Date							

Continue (Discon Norma			
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commiss ning Yea
All the project	The project consiste in the construction of 2 microlique The project liquefaction capacity is still confidential as company strategy.		2022

		P	PEGASUS		
ETR-N-305		Project		Energy Transition Related Project	Non-FID
Update Date			15/08/2019		Advanced
Description PRJ Code - PRJ Name	increase of energy produced The aim of the project is to protect to H2 through RES powered entransport network with access	100% from non-programm oduce 100% renewable m electrolysis and CO <sub>2</sub> supply	mable renewable sources, for a p nethane gas (CH4) on an industri	ne of the technologies that can contrib rogressive decarbonisation of the energy al scale, through an integrated system rocesses, with subsequent methanation bution and liquefaction.	gy system. of conversion of H2C
Sponsors		Genera	al Information		
	100%	<b>Genera</b> Promoter	al Information S.G.I. SpA		
<mark>Sponsors</mark> S.G.I. S.p.A.	100%				
	100%	Promoter	S.G.I. SpA		
	100%	Promoter Operator	S.G.I. SpA Società Gasdotti Italia		

Schedule	Start Date	End Date
Pre-Feasibility		05/2019
Feasibility	06/2019	07/2019
FEED	08/2019	09/2020
Permitting	10/2020	12/2021
Supply Contracts		02/2022
FID		02/2022
Construction	03/2022	12/2023
Commissioning	2024	2024
Grant Obtention Date	01/03/2024	01/03/2024

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commission ning Year
PEGASUS	The project includes: - The project foresees - High voltage interconnection with the electricity grid for renewable energy supply to water electrolysis process - Interconnection with existing biogas plant for CO2 withdrawal, available from biomethane upgrading unit - CO2 storage at 40 bar - Electrolyzer for hydrogen production, nominal power 23 MW - Hydrogen storage at 200 bar - Methanation reactor, nominal power 4,5 MW (according to methane HHV)	Capacity increment (production of renewable methane) 0,12 GWh/day	2024
	Capacity increment (production of renewable methane): 0,12 GWh/day		
	Delays since last TYNDP		
Delay Since Last TYNDP			
Delay Explanation			

intent TrivDP. Triv	IDF 2020 - Annez					Page 015 017
			Power to gas plant in the south of Italy			
ETR-N-591			Project		Energy Transition Related Project	Non-FID
Update Date				21/09/2020		Advanced
Description		ect is aimed to the in le sources.	njection of hydrogen f	rom a power to gas plant located i	n the south of Italy. The electric feed is ex	spected to come fror
PRJ Code - PRJ Nam	e -					
Sponsors			G	eneral Information		
SNAM		100%	Promoter	Sna	m	
	1		Operator	SNAM S.p.	А.	
			Host Country	Ita	ly	
			Status	Planne	ed	
			Website			
Schedule	Start Date	End Date				
Pre-Feasibility						
Feasibility						
FEED						
Permitting						
Supply Contracts						

FID Construction

Commissioning

Grant Obtention

Date

2025

20

2025

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	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
All the project	The projects enable the integration of an hydrogen of MW.	capacity up to 10	

## SAN MARCO - RECANATI

TRA-F-424	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	Construction of 35 km 24" in the provinces of Fermo, Macerata and Anco Recanati. The proget forsee realisation of a Gas Tranportation system on Adriatic co - ensure the security of service on the current backbone (which will under over the coming decades; - avoid congestion in this section and meet capacity increases in relation t	bast that will: go a progressive reduction in operating pressures d	
PRJ Code - PRJ Name			

Capacity increments v					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Recanati (IT)	Società Gasdotti Italia	2022	IT	ITg	53.00 GWh/d

Sponsors			General Information	NDP a	and PCI Information
SGI SpA	100%	Promoter	SGI S.p.A.	Part of NDP	Yes (SAN MARCO - RECANATI)
		Operator	Società Gasdotti Italia	NDP Number	5681
		Host Country	Italy	NDP Release Date	30/11/2018
		Status	In Progress	NDP Website	<u>NDP URL</u>
		Website	<u>Project's URL</u>	Currently PCI	No
				Priority Corridor(s)	

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Schedule	Start Date	End Date
Pre-Feasibility		06/2014
Feasibility	07/2014	12/2014
FEED	04/2015	05/2015
Permitting	06/2016	04/2018
Supply Contracts		01/2019
FID		01/2015
Construction	03/2019	09/2021
Commissioning	2022	2022
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
San Marco-Recanati		600	35		2021
	Total		35		

**Expected Gas Sourcing** 

The project is an internal connection of existing network

Main Driver
Benefit Description
Benefit Description
Benefits         Regulation SoS         The proget forsee : - ensure the security of service on the current backbone (which will undergo a progressive reduction in obsolescence) over the coming decades; - avoid congestion in this section and meet capacity increases in relation to change

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	CBCA	Fi	nancial Assist	ance
	No, we have not submitted an investment request yet,	Applied for CEF		(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies		No
Culturizzin Data	not	Grants for studies amount		Mln EUR 0.0
Submissin Date		Grants for works		No
Decision Date		Grants for works amount		Mln EUR 0.0
Website		Intention to apply for CEF		No, we do not plan to apply
Countries Affected		Other Financial Assistance		No
Countries Net Cost Bearer		Comments		
Additional Comments	The project is an internal connection of existing network	General Comments		

Sardinia Methanization									
TRA-N-1194	Project		Pipeline including	CS N	lon-FID				
Update Date	15/08/2019			Non	-Advanced				
Description	The project includes the activities aimed at the realization of natural gas transport facilities interconnected with the supply points of new LNG plants in the region of Sardinia that is not even methanized.								
PRJ Code - PRJ Name	-								
Capacity Increments Varia	nt For Modelling								
Point	Operator	Year	From Gas System	To Gas System	Capacity				

	ENURA	S.p.A. 2020	LNG_Tk_ITs	s ITs	17.00 GWh/d
Sardinia LNG	ENURA	S.p.A. 2022	LNG_Tk_ITs	s ITs	22.00 GWh/d
	ENURA	S.p.A. 2025	LNG_Tk_ITs	s ITs	11.00 GWh/d

Sponsors	General Information		NI	DP and PCI Information
	Promoter	ENURA S.p.A.		Yes (Ten-year development plan of the
	Operator	ENURA S.p.A.	Part of NDP	natural gas transmission network 2018-
	Host Country	Italy		2027)
	Status	In Progress	NDP Number	RN_09
	Website	Project's URL	NDP Release Date	30/11/2018
		<u></u>	NDP Website	<u>NDP URL</u>
			Currently PCI	No
			Priority Corridor(s)	

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Schedule	Start Date	End Date
re-Feasibility		12/2016
Feasibility	01/2016	12/2016
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2020	2025
Grant Obtention		
Date		

<b>Pipelines and Comp</b>	ressor Stations				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
phase 1		1,300	92		2020
phase 2		800	104		2021
phase 3		1,050	104		2022
phase 4		1,000	85		2022
phase 5		400	34		2025
phase 6		350	23		2025
phase 7		550	131		2025
	Total		573		

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	Benefits					
Main Driver	Market Demand					
Main Driver Explanation	Project has been developed with reference to the "Environmental Energy Plan of Sardinia Region 2015-2030" (PEARS), that hypothesizes that the supply to cover Sardinia Demand is guaranteed by LNG facilities.					
Benefit Description	Competition: The Sardinian methanization project, introducing gas as the most competitive element in the energy mix of the region, will increase the competitiveness of the Sardinian market. Sustainability: The Sardinian methanization project could cause the substitution of source that cause an high production of CO2 with Natural Gas, leading to a reduction in the production of the pollutant.					

	CBCA	Financial Assistance			
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we do not plan to submit it	Grants for studies	No		
Submissin Date		Grants for studies amount	Mln EUR 0.0		
Decision Date		Grants for works	No		
Website		Grants for works amount	Mln EUR 0.0		
Countries Affected		Intention to apply for CEF	No decision yet taken		
Countries Net Cost Bearer		Other Financial Assistance	No		
Additional Comments		Comments			
		General Comments			

Sector coupling: hybrid compressor station								
ETR-F-599	Project	Energy Transition Related Project	FID					
Jpdate Date	16/09/2020		Advanced					
Description	The project consists of the installation of two new electro compressors is substitution of gas compressor power (particularly, the elder turbo com sectors activating flexibility resources at the benefit of the overall energy	pressors). The project makes possible the coupling of e						
PRJ Code - PRJ Name	- /							

oonsors			Gener	al Information
am Rete Gas S.p.	Α.	100%	Promoter	Snam Rete Gas S.p.A.
1			Operator	Snam Rete Gas S.p.A.
			Host Country	Italy
			Status	In Progress
			Website	
chedule	Start Date	End Date		
Feasibility		12/2017		
sibility	01/2017	12/2017		
D	01/2018	12/2021		
nitting	01/2019	12/2021		
ly Contracts		06/2024		
		07/2018		
struction	06/2024	12/2024		
missioning	2024	2024		
nt Obtention				

Current TYNDP : TYNDP 2020 - Annex A	Page 624 of 773		
	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
All the project	The project consists of the installation of two new electro compressors in Malborghetto compressor station for a total of 24 MW in partial substitution of gas compressor power		2024

			Stazione di Spint	ta "San Marco"				
TRA-N-439			Project		P	Pipeline including	y CS N	lon-FID
Update Date			15/08	8/2019			A	dvanced
Description			sion station SAN MARCO ation of a revers flow capacity or	n Gas Tranportation syster	n of Adr	iatic coast		
PRJ Code - PRJ Nam	ne -							
Capacity Increments	s Variant For N	Iodelling						
Point	1		Operator		Year	From Gas System	To Gas System	Capacity
Larino (IT)			Società Gasdotti Italia		2022	IT	ITg	53.00 GWh/d
Sponsors			General Info	rmation		NDP and	PCI Information	
SGI SpA		100%	Promoter	S.G.I. S.p.A.	Part of	NDP	Yes (Stazione si S	pinta San Marco)
	11		Operator	Società Gasdotti Italia	NDP N	lumber		5515
			Host Country	Italy	NDP R	elease Date		30/11/2018
			Status	In Progress	NDP V	Vebsite		<u>NDP URL</u>
			Website	<u>Project's URL</u>	Curren	itly PCI		No
					Priority	y Corridor(s)		
Schedule	Start Date	End Date				Third-Par	ty Access Regime	
Pre-Feasibility		07/2015			Consid	ered TPA Regime		Regulated
Feasibility	06/2018	10/2019			Consid	ered Tariff Regime		Regulated
FEED	11/2019	06/2020			Applied	d for Exemption		No
Permitting	11/2019	03/2021			Exemp	tion Granted		No
Supply Contracts		05/2021						
FID		01/2021			Exemp	tion in entry directio	n	0.00%
Construction	06/2021	12/2022			Exemp	tion in exit direction		0.00%
Commissioning Grant Obtention Date	2022	2022						

Pipelines and Compressor Stations		
Pipeline Section	Pipeline Comment	DiameterLengthCompressor PowerComissioning(mm)(km)(MW)Year
Compression Station		3 2022
	Total	3

	Expected Gas Sourcing
The project is an interna	I connection of existing network
	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	The project will be increase the security enabling the revers-flow un the pipelines sistem allowing the delvery to Recanati interconnection point of gas coming from south
Benefit Description	

	CBCA	Finar	icial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No, we do not plan to apply
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer		Comments	
Additional Comments	The project is an internal connection of existing network	General Comments	

NDP URL

No

# System Enhancements - Stogit - on-shore gas fields

UGS-F-260	Project	Storage Facility	FID
Update Date	17/09/2020		Advanced
Description	The project envisages the development of the following depleted on-se Alfonsine	ore gas fields: Fiume Treste - Minerbio - Ripalta - Sab	bioncello - Sergnano -
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling	J						
Point		Operator		Year Fro	om Gas System	To Gas System	Capacity
		STOGIT		2028	STcIT	IT	104.30 GWh/c
	Comment: Interconnection point Storage hub/Transportation grid is a commercial point. The capacity available is equal to the capacity offered or planned to be offered by the storage companies.						
UGS - IT - Snam Rete Gas/STOGIT		STOGIT		2028	IT	STcIT	20.90 GWh/d
			onnection point Storage hub able is equal to the capacity		0		
Sponsors		General Inf	ormation		NDP and	PCI Information	
Stogit	100%	Promoter	STOGIT		Yes	(Ten-year develop	ment plan of the
		Operator	STOGIT	Part of NE	OP natu	ral gas transmissio	
		Host Country	Italy				2027
		Statuc	Plannad	NDP Num	nber		not applicabl

Status

Website

Planned

NDP Release Date

Priority Corridor(s)

NDP Website

**Currently PCI** 

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Schedule	Schedule Start Date End Date	
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2028	2028
Grant Obtention Date		

			Technical Information (	(UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor (%)	Comments	Commisioning Year
Fiume Treste - Minerbio - Ripalta - Sabbioncello - Sergnano - Alfonsine	Depleted Field	No	System Enhancements - Stogit - on-shore gas fields	588	2.0	9.5	90	NA	2028

	Benefits				
Main Driver	Others				
Main Driver Explan					
Benefit Descriptior					

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CBCA	Financi	al Assistance
No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
and we do not plan to submit it	Grants for studies	No
	Grants for studies amount	Mln EUR 0.0
	Grants for works	No
	Grants for works amount	Mln EUR 0.0
	Intention to apply for CEF	
	Other Financial Assistance	No
	Comments	
	General Comments	
		No, we have not submitted an investment request yet, and we do not plan to submit itApplied for CEFGrants for studiesGrants for studies amountGrants for worksGrants for worksGrants for works amountIntention to apply for CEFOther Financial AssistanceComments

## **TAP** interconnection

TRA-F-1193	Project	Pipeline including CS	FID
Update Date	17/09/2020		Advanced
Description	The project is functional to connect the new TAP import infrastructure, schedule Brindisi.	d to arrive in Melendugno, with the existing r	national network near
PRJ Code - PRJ Name	-		

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Snam Rete Gas S.p.A.	2020	IB-ITs	AL/TAP	158.00 GWh/d
Melendugno - IT / TAP	Comment: GCV used for capac emergency operations in line w		ercial Reverse Capaci	, , ,	
	Snam Rete Gas S.p.A.	2020	AL/TAP	IB-ITs	509.00 GWh/d

Sponsors		General Information		NDP and PCI Information		
Snam Rete Gas s.p.a.	100%	Promoter	Snam Rete Gas S.p.A.		Yes (Ten-year development plan of the	
		Operator	STOGIT	Part of NDP	natural gas transmission network 2018-	
		Host Country	Italy		2027,	
		Status	In Progress	NDP Number	RN_02	
		Website	Project's URL	NDP Release Date	30/11/2017	
				NDP Website	<u>NDP URL</u>	
				Currently PCI	Yes (7.1.3 (2020),	
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	04/2015	05/2018
Permitting	11/2015	05/2018
Supply Contracts		02/2019
FID		05/2018
Construction	02/2019	10/2020
Commissioning	2020	2020
Grant Obtention		
Date		

Pipelines and Comp	ressor Stations				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Tap Interconnection		1,400	55		2020
	Total		55		
	Eulfilled Criteria				

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments please find enclosed

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	Ben	efits	
Main Driver	Market Demand		
Main Driver Explanation	Snam rete gas received a First Request for access to the National di Regolazione per Energia Reti e Ambiente and with paragraph &		
Benefit Description	Security of supply, diversification of sources, diversification of rou and flexibility of the system.	ites, back-up for renewables, power-to-gas	s, market Integration (Increase of competition)
	СВСА	Finan	ncial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CE
	and we do not plan to submit it	Grants for studies	N
Submissin Date		Grants for studies amount	Mln EUR 0.
Decision Date		Grants for works	N
Website		Grants for works amount	Mln EUR 0.
Countries Affected		Intention to apply for CEF	No decision yet take
Countries Net Cost Bear	er	Other Financial Assistance	٨
Additional Comments		Comments	
		General Comments	

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# Transport of hydrogen into natural gas network for industrial customers

	Project	E	nergy Transition R Project	elated N	lon-FID
	21/09/2020			Ad	dvanced
the project aims at decarboni into the industrial processes a	zing group of industrial customers transp and end-use applications. The projects inc	orting hydrogen in va ludes also the facilitie	rious locations with a g s needed to inject into	radual integration a grid portion a m	of hydrogen
-					
nt For Modelling	Operator	Vear	From Gas System	To Gas System	Capacity
	SNAM S.p.A.	2025	IT	IT	0.19 GWh/d
	•				
100%		Snam			
10070					
	•				
	Status	In Progress			
	Website	-			
	the project aims at decarbonize into the industrial processes a	21/09/2020 Leveraging on the experience acquired thanks to Contursi pilot project the project aims at decarbonizing group of industrial customers transp into the industrial processes and end-use applications. The projects inco natural gas and hydrogen. Where necessary, the industrial plant technol - - <b>nt For Modelling</b> Operator SNAM S.p.A. <u>General Information</u> 100% Promoter Operator Host Country Status	Project         21/09/2020         Leveraging on the experience acquired thanks to Contursi pilot project (injection till 10% H2 the project aims at decarbonizing group of industrial customers transporting hydrogen in vainto the industrial processes and end-use applications. The projects includes also the facilitie natural gas and hydrogen. Where necessary, the industrial plant technological adaptation is protected adaptation is protected.         Operator         Year         SNAM S.p.A.         Operator         Year         SNAM S.p.A.         100%         Promoter         Snam         Operator         SNAM S.p.A.         100%         Promoter         Snam         Operator         SNAM S.p.A.         Adoption         In Progress	Project       Project         21/09/2020       Everaging on the experience acquired thanks to Contursi pilot project (injection till 10% H2 blended with natural gt the project aims at decarbonizing group of industrial customers transporting hydrogen in various locations with a gint to the industrial processes and end-use applications. The projects includes also the facilities needed to inject into natural gas and hydrogen. Where necessary, the industrial plant technological adaptation is part of the project active -         nt For Modelling       Operator       Year       From Gas System         SNAM S.p.A.       2025       IT         Operator         SNAM S.p.A.       2025       IT         Operator         SNAM S.p.A.       2025       IT         Merical Information         100%       Promoter       Snam         Operator       Snam       SNAM S.p.A.         Host Country       Italy       Status         Status       In Progress       In Progress	Image: Constraint of the second se

Page	634	of	773
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction	2025	2025
Commissioning Grant Obtention	2025	2023
Date		
Section/Phase Name	/	
Section/Thase Nume		
Section 1		

## Hydrogen injection into the gas network in Lithuania

ETR-N-900	Project	En	ergy Transition Re Project	elated N	on-FID
Update Date	14/06/2020			Ac	lvanced
Description PRJ Code - PRJ Name	The aim of the project is to analyze the physical impact of increased concert transporting gas to consumers in Lithuania and neighboring (EU and non-Experiormed to Lithuania's natural gas transmission and distribution infrastrup pressure pipeline under real conditions will be implemented. Hydrogen blever results of the Feasibility study, the capacity level will be defined.	EU) countries. The to octure. The demons	est and evaluation of I tration project of the i	hydrogen/ natural	gas mix will be en into a high-
Capacity Increments Variant	For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
					1 2

Sponsors		General Information
AB Amber Grid 100%	Promoter	AB Amber Grid
	Operator	AB Amber Grid
	Host Country	Lithuania
	Status	Planned
	Website	

Schedule	Start Date	End Date
Pre-Feasibility		03/2021
Feasibility	04/2021	06/2022
FEED	06/2022	12/2022
Permitting	12/2022	07/2023
Supply Contracts		07/2023
FID		07/2023
Construction	07/2023	11/2024
Commissioning	2024	2024
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Hydrogen injection	The capacity level will be defined in the Feasibility study. It is planned MW electrolysis.	1	2024

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# LNG Terminal in Klaipeda

LNG-F-824		Project			LNG Term	inal	FID
Update Date		18/1	1/2019			No	n-Advanced
Description	Terminal operations post 202 and ensure the sustainability LNG break bulk infrastructure operations and consequential	lease turned to be a success st 4. This long-term solution will e of future regional gas market. T and effective natural gas price ly lower the effective natural ga astructure and faster switch-ove	ensure a consolidation of t The benefits include securit cap. Purchase of the FSRU as price cap for all consum	he subst ty of sup J will also ers in th	cantial regional b oply, availability c o facilitate substa le region, as well	enefits already broug f alternative natural intially lower costs o	ght to the region gas supplies, f Terminal
PRJ Code - PRJ Name	-						
Capacity Increments Varia	nt For Modelling						
Point		Operator		Year	From Gas Syste	em To Gas System	Capacity
Klaipeda (LNG)		AB Klaipėdos Nafta		2024	LNG_Tk_LT	LT	122.40 GWh/d
Sponsors		General Info	ormation		NDP	and PCI Informatior	١
AB Klaipėdos Nafta	100%	Promoter	AB Klaipėdos Nafta			Yes (National Ene	
		Operator	AB Klaipėdos Nafta	Part o	f NDP	337 111	ed 2018-06-26 by Order No. XI-2133)
		Host Country	Lithuania				f National Energy
		Status	Planned	NDP I		ndependence strateg	, aprroved by the
		Website	<u>Project's URL</u>	-		Goverment on 2018-	
					Release Date		26/06/2018
					Vebsite		<u>NDP URL</u>
					ntly PCI		No
				Priorit	y Corridor(s)		BEMIP

rrent TYNDP : TY	NDP 2020 - Ann	ex A	
Schedule	Start Date	End Date	Third-Party Access
Pre-Feasibility		11/2017	Considered TPA Regime
Feasibility	11/2017	04/2018	Considered Tariff Regime
FEED	07/2011	03/2012	Applied for Exemption
Permitting	11/2011	10/2012	Exemption Granted
Supply Contracts		12/2018	
ID		12/2018	Exemption in entry direction
Construction			Exemption in exit direction
Commissioning	2024	2024	
Grant Obtention			
Date			

Technical Information (LNG)							
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Loa Year	ad Factor (%)
FSRU Independence	Yes Purchase	3.7 160,000	10.20	170,000	-	2024	40

**Fulfilled Criteria** 

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

 Expected Gas Sourcing

 LNG (LNG,NO,US,WO), Nigeria, Trinidad and Tobago

 Comments about the Third-Party Access Regime

 Tariff regulation created by Lithuania NRA and Parliament, which was also approved by EC -State aid SA.36740 (2013/NN) – Lithuania. All services of Klaipeda LNG terminal is regulated.

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	Ben	efits			
Main Driver	Regulation SoS				
Main Driver Explanation	Ensure certainty on the SoS in the region Without a project there market - successful evolution of the regional gas market	is uncertainty on: - compliance with N-1 st	andard - competition of gas supply in the		
Benefit Description	Ensure certainty of independence from the single external natural gas supplier Ensure certainty of diversification of natural gas supply sources Ensure certainty to the regional gas market players and create real gas market ensuring natural gas supply in the Baltics The project is also driven by a market demand to have flexibility in choosing different sources of supply, to be connected with global market				
	Bar	riers			
Barrier Type	Description				
Market	Lack of market support				
Market	Lack of market maturity				
Financing	Amortization rates				
Regulatory	Low or zero-priced short-term capacity				
	CBCA	Finan	cial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we have not yet decided whether we will submit or	Grants for studies	No		
Culomiasia Data	not	Grants for studies amount	Mln EUR 0.		
Submissin Date		Grants for works	N		
Decision Date		Grants for works amount	Mln EUR 0.0		

Website

Countries Affected

Countries Net Cost Bearer

Additional Comments

Financial Assistance							
Applied for CEF	(3) No, we have not applied for CEF						
Grants for studies	No						
Grants for studies amount	Mln EUR 0.0						
Grants for works	No						
Grants for works amount	Mln EUR 0.0						
Intention to apply for CEF	Yes, for work only						
Other Financial Assistance	No						
Comments							

General Comments

# Biomethane production with infrastructure building/enhancement in Latvia

ETR-N-125	Project	Energy Transition Related Project	Non-FID
Update Date	29/05/2020		Advanced
Description	The total installed electrical capacity of biogas in Latvia is 60.446 MW, which in 20 production in Latvia. Only these biogas plants, which are close to the transmission inject biomethan into the transmission grid. 13 existing biogas production facilitie Zemgale region (Druvas unguri, Daile Agro, Bio Ziedi, Zemgali, Lielmežotne, Agro zemes energija, Vecsiljāņi, Pilslejas, International Investments). The project will stat The operation of the pilot facility will be assessed and based on experience other transmission grid might need to be upgraded for accommodation of the biometh	n grid is feasible to upgrade for biomethan pro- es for upgrade to biomethan production are c lecava, Egg Energy) and 5 in Vidzeme region art with the feasibility study resulting in selecti- facilities will be upgraded and connected to t	oduction in order to hosen in Latvia: 8 in (Baltijas Darzeņi, Zaļās on of the pilot facility.
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling						
Point	Operator		Year	From Gas System	To Gas System	Capacity
Forecast Production Latvia	Conexus Baltic Gr	id	2026	NPcLV	LV	0.73 GWh/d
Sponsors	General	Information				
	Promoter	JSC "Conexus Baltic Grid				
	Operator	Conexus Baltic Grid	1			
	Host Country	Latvie	7			
	Status	Planned	1			
	Website	Project's UR	_			

Schedule	Start Date	End Date
Pre-Feasibility		12/2020
Feasibility	01/2021	12/2021
FEED		
Permitting		
Supply Contracts		
FID		
Construction	01/2024	12/2026
Commissioning	2026	2026
Grant Obtention		
Date		

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## Enhancement of Incukalns UGS

Baltic         transr         Description         allowi         storage         the ab	Sea region. IUGS is natures mission system ensures wing ing ensuring late winter ge to maintain its function bility to reduce the dependent	24 TWh Inčukalns Undergroun Iral, aquifer type storage with c withdrawal from storage. Curre supply. The aim of the project i onality after pressure upgrade i	ompressor injection but na ntly at the end of withdraw is to enhance the operation	tural withdrawal. Press al season, pressure at s of the storage to all	sure difference betwee entry from storage dr	en storage and ops to 30 bar,
Baltic transr Description allowi storag the ab	Sea region. IUGS is natures mission system ensures wing ing ensuring late winter ge to maintain its function bility to reduce the dependent	iral, aquifer type storage with c withdrawal from storage. Curre supply. The aim of the project i onality after pressure upgrade i	ompressor injection but na ntly at the end of withdraw is to enhance the operation	tural withdrawal. Press al season, pressure at s of the storage to all	sure difference betwee entry from storage dr	en storage and ops to 30 bar,
		al issues, improvement of phys	on the volume of gas reser	ves in the IUGS.		
PRJ Code - PRJ Name -						
Capacity Increments Variant For Mc	odelling					
Point		Operator		Year From Gas Sy	stem To Gas Syster	m Capacity
		Conexus Baltic Grid		2019 STcLV	LV	84.00 GWh/d
Incukalns (LV)		Conexus Baltic Grid		2025 LV	STcLV	8.50 GWh/d
				Comment: Incen	nent of injection capac	city
Sponsors		General Info	ormation	ND	P and PCI Informatio	n
JSC "Conexus Baltic Grid"	100%	Promoter	JSC "Conexus Baltic Grid"		No ((4) there is no ob	-
		Operator	Conexus Baltic Grid	Part of NDP	level for such a proje	· · · · · · · · · · · · · · · · · · ·
		Host Country	Latvia	NDP Number		NDP
		Status	In Progress			
		Website	Project's URL	NDP Release Date NDP Website		
						Vac (9.2.4 (2020)
				Currently PCI		Yes (8.2.4 (2020)
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		02/2012
Feasibility	02/2017	11/2017
FEED	09/2019	07/2022
Permitting	05/2014	12/2020
Supply Contracts		09/2022
FID		03/2019
Construction	03/2019	12/2025
Commissioning	2019	2025
Grant Obtention Date	19/05/2017	19/05/2017

			Technical Inform	nation (UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor (%)	Comments	Commisioning Year
Incukalns Underground Gas Storage	Aquifer	No	Inčukalns UGS	0	20.0	40.0	60		2024

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	Since Incukalns UGS is the only storage of the region, increase of gas withdrawal volumes especially in the end of withdrawal deason significantly increases security of supply during cold spell. It is important for creation of the common market zone in the Baltic Countries and Finland, and the project is of a key importance for market integration. Besides, by storing gas from different sources (pipeline and LNG) it contributes to the competition. Since technical activities provide for significant decrease of emissions it also contributes to the sustainability.

urrent TYNDP : TYNDP	2020 - Annex A	Page 644 of 773
	Delays since last TYNDP	
Delay Since Last TYNDP	Two years	
Delay Explanation	Change in market conditions.	
	Expected Gas Sourcing	
Russia, LNG ()		
	Benefits	
Main Driver	Market Demand	
Main Driver Explanation	According to the 2017 feasibility study, the storage in the future will be more used for short therm products will be used for LNG parking and power market peak demand. Regarding storage and storage with the filling requiremnts. After competion of GIPL and Balticconecte include Poland and Finland. Other drivers: - request of the market for availability of gas at swill allowing to transfer gas flow from GIPL; Klaipeda LNG to Estonia and through Baltic Co	security of supply- the storage shall be divided as the strategic or it is expected that market area for the storage will also short notice - increase of transmission system working pressure
Benefit Description	Ending energy isolation - Transit route through Latvia facilitates gas flow in region that is or provide option to diminish single supplier impact on gas supply by providing gas source we the time of supply transferred to countries currently fully dependent on one source of supply operations of IGUS is essential to whole East-Baltic region especially in relation to the creat availability of flexible volumes of gas can significantly increase liquidity of gas flows, thus co key users of storage is electricity producer, providing practical possibility for industry coup price improvement and increasing liquidity.	where gas from LNG or other EU suppliers can be stored and at oly. Implementation of internal energy market - Reliable tion of the joint gas market for Baltic Countries whereas ontributing to the integration of energy markets One of the
	Barriers	
Barrier Type	Description	
Market	Lack of market maturity	
Market	Lack of market support	

	СВСА	-	Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	25/09/2018	Grants for studies	Yes
Decision Date	04/10/2018	Grants for studies amount	Mln EUR 0.2
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Estonia, Latvia, Lithuania	Grants for works amount	Mln EUR 44.0
Countries Net Cost Bearer	Latvia	Intention to apply for CEF	No decision yet taken
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

# Power to Gas Production with infrastructure building/enhacement in Latvia

ETR-N-80	Project	En	Energy Transition Related Project		Non-FID		
Update Date	29/05/2020						
Description PRJ Code - PRJ Name	There are plans to develop wind farms in two regions of Latvia called Kurze 207 MW has already received building permit and 360 MW is in pipeline w windfarms are expected to generate 800 GWh a year. In order to use excess hydrogen as also potentially synthetic hydrocarbon will be injected into ex of new aquifer gas storage. The first steps of the demonstration project wil impact of hydrogen on aquifer storages. Option of production of the synth -	vith the final phase of ss wind power, Powe disting gas transmiss Il be feasibility study	of the Environmental I er to Gas technology v ion grid with possible y on the best location	mpact Assessment will be used and ge utilization of exist and technology as	. These enerated ing or creation s well the		
Capacity Increments Varia	ant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity		
		2030	NPcLV	LV			
Forecast Production Latvi	a Conexus Baltic Grid		INFCLV	LV	2.00 GWh/d		

Sponsors		Ge	neral information
JSC "Conexus Baltic Grid"	100%	Promoter	JSC "Conexus Baltic Grid"
		Operator	Conexus Baltic Grid
		Host Country	Latvia
		Status	Planned
		Website	<u>Project's URL</u>

Schedule	Start Date	End Date
Pre-Feasibility		12/2022
Feasibility	01/2023	12/2024
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2030	2030
Grant Obtention		
Date		

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## Interconnection North Macedonia-Greece (North Macedonian part)

TRA-A-980	Project		Pipeline including CS	Non-FID
Update Date		02/09/2019		Non-Advanced
Description	<ul> <li>The project will ensure supply of additional quantities of connection to the existing LNG Terminal Revithoussa and Main gas pipeline section Negotino - Gevgelija (border w Within this section the following objects and systems are - Line part in length of 68 km with pipe diameter DN 700 - Valve stations</li> <li>Pig Launching-Receiving Station DN700,</li> <li>System for automatic operating with the technological p-Line for connection with optic fibres;</li> <li>Power supply system</li> <li>Cathodic protection system</li> <li>Security Signaling System and fire signalization. maximum pressure (projected)pmax = 66.5 bars</li> <li>Capacity 326.000 m3/h (76,4 GWh/day)</li> </ul>	d possibly transit of addition with Greece) e included: ) (28"),	nal quantities of natural gas intended fo	5
PRJ Code - PRJ Name	-			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Stojakovo village (MK) / Pontoiraklia (GR)	MER JSC Skopje	2022	GR	МК	76.50 GWh/d

Sponsors		General Information		NDP and PCI Information			
MER JSC Skopje	100%	Promoter	MER JSC Skopje	Part of NDP	Yes (Work Program of the Government		
		Operator	MER JSC Skopje	Tart of NDT	of R.Macedonia)		
		Host Country	North Macedonia	NDP Number	Energy sector, no. 2		
		Status	Planned	NDP Release Date	27/11/2018		
		Website		NDP Website	NDP URL		
				Currently PCI	No		
				Priority Corridor(s)			

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Schedule Start Date		End Date
Pre-Feasibility		
Feasibility	03/2017	01/2019
FEED	03/2019	12/2019
Permitting	12/2018	03/2020
Supply Contracts		10/2020
FID		06/2020
Construction	12/2020	09/2022
Commissioning	2022	2022
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Negotino-Gevgelija		700	68	0	2022
	Total		68	0	

**Expected Gas Sourcing** 

### Caspian Region, Russia, LNG ()

	Benefits
Main Driver	Market Demand
Main Driver Explanation	The project will add a second source of supply to North Macedonia and will allow the expected demand to be covered.
Benefit Description	By adding a second source of supply through Greece the project will increase: - Security of Supply - Market Integration, as gas from all sources supplying Greece will be available to North Macedonia - Sustainability, as the higher availability of gas will allow the subsitution of lignite in the power generation and the space heating sectors.

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	CBCA	Financia	Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we have not yet decided whether we will submit or	Grants for studies	No		
Culturing Data	not	Grants for studies amount	Mln EUR 0.0		
Submissin Date		Grants for works	No		
Decision Date		Grants for works amount	Mln EUR 0.0		
Website		Intention to apply for CEF	No decision yet taken		
Countries Affected		Other Financial Assistance			
Countries Net Cost Beare	r		No		
Additional Comments		Comments			
		General Comments			

TRA-A-31	Project	Pipeline including CS	Non-FID
Update Date	19/09/2019		Advanced
Description	The project addresses PCI 5.19 consisting on a gas pipeline between Malta of 22" (DN 560) and a length of 159 km (151 km offshore, 7 km onshore in connecting the island to the trans-European Natural Gas Network, allowing future inland market and hence enabling the gasification of the country. It will thus contribute to integration of the gas market, access to lower gas island depends on LNG supply through shipping. The average load factor o and does not account for peak load conditions for which the max. technical sector.	Sicily and 1km onshore in Malta). The project will o g gas importation to meet Malta's gas demand for prices and improved security of energy supply, giv of 22% is attributed to only first three years from pr	end Malta's isolation by power generation and en that presently the roject commissioning
PRJ Code - PRJ Name	-		

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Melita TransGas Co. Ltd. 2024		IB-ITi	MT	56.00 GWh/d
Cale (Italy) SPC MTCP (Malta) Interconnection Daint	Comment: MTGP is designed with bi-directional flow capability.				
Gela (Italy) SRG-MTGP (Malta) Interconnection Point	Melita TransGas Co. Ltd.	2024	MT	IB-ITi	56.00 GWh/d
	Сол	mment: MTGP is des	igned with bi-directio	nal flow capability	

Sponsors	Genera	General Information		NDP and PCI Information		
	Promoter	Melita TransGas Co. Ltd.	Part of NDP	Yes (Malta National Reform Programme		
	Operator	Melita TransGas Co. Ltd.		April 2019)		
	Host Country	Malta	NDP Number	Section 4.3.2		
	Status	Planned	NDP Release Date	30/04/2019		
	Website	Project's URL	NDP Website	<u>NDP URL</u>		
			Currently PCI	Yes (5.19 (2020))		
			Priority Corridor(s)			

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Schedule	Start Date	End Date
Pre-Feasibility		04/2015
Feasibility	04/2013	04/2015
FEED	11/2018	03/2020
Permitting	11/2017	07/2020
Supply Contracts		10/2021
FID		07/2020
Construction	03/2023	05/2024
Commissioning	2024	2024
Grant Obtention Date	25/01/2018	25/01/2018

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Delimara (Malta) to Gela (Sicily) Italy	Length of the pipeline reflects the Basic Design study results and will be confirmed by Q3 2020 following the completion of the PMRS, FEED and permitting activities.	560	159	0	2024
	Total		159	0	

	Fulfilled Criteria
Specific Criteria Fulfillec	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfillec	A comments Market integration: MTGP will eliminate Malta's isolation from the EU Gas Network and will thus contribute to the integration of the Internal Energy Market; it will contribute to the overall flexibility and interoperability of the system as it will offer future possibility of reverse flows capacity. Security of supply: MTGP will provide a more reliable, secure and energy efficient form of transport of natural gas. The PCI is designed with bidirectional flow capability, and hence may provide for the possibility of reverse flow from Malta to Europe in case of emergency gas disruption situations. Sustainability: MTGP will remove emissions from LNG supply chain, while generating environmental landscape benefits from removal of FSU. Competition: The PCI will contribute to the diversification of import sources and import routes and will increase the competitiveness by promoting the integration of the internal energy market and the interoperability of electricity and gas networks.
	Delays since last TYNDP
Delay Since Last TYNDP	Yes
Delay Explanation	
	Expected Gas Sourcing
Algeria, Caspian Region	n, Libya, Norway, Russia, LNG ()
	Benefits
Main Driver	Others
Main Driver Explanatior	The main driver is the elimination of Malta's isolation from the European Gas network.
Benefit Description	The gas pipeline interconnection will put an end to Malta's isolation from the European gas network and contribute to the integration of the Internal Energy Market; moreover the project shall: • Replace the importation of LNG for the production of electricity; • Contribute to the system's overall flexibility and interoperability in that it will offer the possibility of capacity for reverse flows in the future. • Complement the Energy Union's strategy towards the diversification of sources, routes and suppliers of natural gas. • Guarantee greater security of energy supply to the island; • Enable easier access to the natural gas resources at a lower cost for Malta; • Support objectives of sustainability as it will contribute towards the reduction of GHG (Greenhouse Gas) emissions by delivering natural gas more efficiently, eliminating the need for liquefaction, shipping and regasification, as is the case with LNG use for electricity generation purposes.
	Barriers
Barrier Type	Description
Barrier Type Financing	

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CBCA		-	Financial Assistance	
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	17/04/2019	Grants for studies	Yes	
Decision Date	04/06/2019	Grants for studies amount	Mln EUR 4.8	
Website	<u>CBCA URL</u>	Grants for works	Yes	
Countries Affected	Italy, Malta	Grants for works amount	Mln EUR 299.4	
Countries Net Cost Bearer	Malta	Intention to apply for CEF	No decision yet taken	
Additional Comments	The CBCA decision jointly issued by the Maltese and Italian NRAs on the 4th June 2019, states that "Malta should bear 100% of the costs of the MTGP project and as such, no monetary transfer is needed between Italy and Malta".	Other Financial Assistance	Yes (1) TEN-E Programme 2012 Call: 'Feasibility Study and cost-benefit analysis of a gas pipeline between Malta and Sicily' 2012-G215/12-ENER/12/TEN-ESI2.661346 Decision Nr C(2013) 8516 - Amount: 125,925 Eur	
		Comments	(2) CEF Synergy Call of 2016: 'Technical Study and Cost- Benefit Analysis for the Development of LNG as a Marine Fuel in Malta' Grant Agreement No: INEA/CEF/SYN/A2016/1338428; Action No: 2016-MT-	

SA-0005 - Amount : 600,000 Eur

General Comments

Green Hydrogen Hub Drenthe				
ETR-N-833	Project	Energy Transition Related Project	Non-FID	
Update Date	14/08/2020		Advanced	
Description	Production of hydrogen via electrolysis and storage of hydrogen in salt c caverns suitable for storage of hydrogen in salt deposits are present. The transmission grid, gas transmission network, underground gas storage ar 2027 - 300 MW - Year 2031 - 1,000 MW Hydrogen storage capacity - Yea that project benefits exceed project costs. Large-scale electrolysis optimis maximises the technology benefits ensuring a robust hydrogen supply ch Interest for green hydrogen have already been received from entities eng	e location is close to existing energy infrastructure: hig and wind resources in the Northern Seas Region. Electro ear 2027 - 200 GWh - Year 2031 - 400 GWh. The results ises the value of RES-E & co-location with large-scale b chain. ETR-N-828 illustrates sector coupling potential as	h-voltage electricity olysis capacity - Yea s of ETR-N-828 show hydrogen storage	
PRJ Code - PRJ Name	-			

Sponsors		Gen	eral Information
Corre Energy Limited	100%	Promoter	Corre Energy Limited
		Operator	Corre Energy Storage Ltd
		Host Country	Netherlands
		Status	Planned
		Website	

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Schedule	Start Date	End Date
Pre-Feasibility		11/2021
Feasibility	12/2021	01/2022
FEED	02/2022	09/2022
Permitting	05/2022	05/2024
Supply Contracts		05/2024
FID		06/2024
Construction	09/2024	08/2026
Commissioning	2026	2026
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Planning	Power-to-hydrogen electrolysis system with a capacity of up to 1,000 MW - Salt cavern storage of up to 130 million Nm3 (400 GWh) of hydrogen producing 2.712 GWh/day of Green Hydrogen		2026

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ETR-N-874	Project	Energy Transition Relate Project Project		Non-FID
Jpdate Date		14/08/2020		Advanced
Description	deposits suitable for creation of caverns capable of large infrastructure: high-voltage electricity transmission grid Seas Region. Electrolysis capacity: Year 2027 - 300 MW Year 2031 - 1 of ETR-N-828 show that project benefits exceed project hydrogen storage maximises the technology benefits e expressions of interest for green hydrogen have been r	d, gas transmission network, 1,000 MW Hydrogen storage ct costs. Large-scale electroly ensuring a robust hydrogen s	multiple gas storage caverns and wind reso e capacity: Year 2027 - 200 GWh Year 2031 sis optimises the value of RES-E & co-location supply chain.ETR-N-828 illustrates sector com	urces in the North - 400 GWh. The re on with large-scale

Sponsors		General Information	
100%	Promoter	Corre Energy Limited	
	Operator	Corre Energy Storage Ltd	
	Host Country	Netherlands	
	Status	Planned	
	Website		
	100%	100% Promoter Operator Host Country Status	

Schedule	Start Date	End Date
Pre-Feasibility		11/2021
Feasibility	12/2021	01/2022
FEED	02/2022	09/2022
Permitting	05/2022	05/2024
Supply Contracts		05/2024
FID		06/2024
Construction	09/2024	08/2026
Commissioning	2026	2026
Grant Obtention Date		

	Technical Information (ETR)	
Section/Phase Name	Main Technical Parameters Technical Information Co	omment Commissio ning Year
Planning	Power-to-hydrogen electrolysis system with a capacity of up to 1,000 MW - Salt cavern storage of up to 130 million Nm3 (400 GWh) of hydrogen producing 2.712 GWh/day of Green Hydrogen	2026

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# Green Hydrogen Hub Zuidwending

ETR-N-830	Project	Energy Transition Related Project	Non-FID
Update Date	14/08/2020		Advanced
Description	Production of hydrogen via electrolysis & storage of hydrogen in salt caver caverns suitable for storage of hydrogen are created in salt deposits by No infrastructure: high-voltage electricity transmission grid, gas transmission n Region. Electrolysis capacity - Year 2026-300 MW - Year 2030-1 GW Hydro results of ETR-N-828 show that project benefits exceed project costs. Large scale hydrogen storage maximises the technology benefits ensuring a robu as expressions of interest for green hydrogen have been received from ent	ouryon during its salt producing activities. Located content network, underground gas storage & wind resource ogen storage capacity - Year 2026-200 GWh - Year 2 e-scale electrolysis optimises the value of RES-E & coust hydrogen supply chain.ETR-N-828 illustrates sec	lose to existing energy s in the Northern Seas 2030-400 GWh.The co-location with large- ctor coupling potential
PRJ Code - PRJ Name			

	Sponsors		eral Information
Corre Energy Limited	100%	Promoter	Corre Energy Limited
		Operator	Corre Energy Storage Ltd
		Host Country	Netherlands
		Status	Planned
		Website	

Schedule	Start Date	End Date
Pre-Feasibility		11/2021
Feasibility	12/2021	01/2022
FEED	02/2022	09/2022
Permitting	05/2022	05/2024
Supply Contracts		05/2024
FID		06/2024
Construction	09/2024	08/2026
Commissioning	2026	2026
Grant Obtention Date		

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissio ning Year
Planning	Power-to-hydrogen electrolysis system with a capacity of up to 1,000 MW - Salt cavern storage of up to 130 million Nm3 (400 GWh) of hydrogen capable of producing 2.712 GWh/day of Green Hydrogen- CAES Zuidwending (CAES ZW), a hydrogen-fuelled CAES facility with generation capacity of 320 MW which is a European Project of Common Interest, PCI Number 1.17.		2026

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TR-A-437		Project	Energy Transition Related Project	Non-FID
pdate Date		15/08/2019		Advanced
Description	Compressing water, containing the bio	rmo-chemical conversion technology that mass, under high temperature, creates th , in which all kinds of (wet)biomass can be	t makes use of the water component in the wet e so-called supercritical phase. e processed. In addition, the gas is produced ur	
PRJ Code - PRJ Name				

Sponsors	General Information		
	Promoter	N.V. Nederlandse Gasunie	
	Operator	Gasunie Transport Services B.V.	
	Host Country	Netherlands	
	Status	Planned	
	Website		

Schedule	Start Date	End Date
Pre-Feasibility		12/2018
Feasibility	01/2018	06/2019
FEED	07/2019	12/2020
Permitting	01/2019	12/2020
Supply Contracts		01/2021
FID		07/2020
Construction	01/2021	12/2023
Commissioning	2021	2021
Grant Obtention Date		

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## FSRU Polish Baltic Sea Coast

LNG-N-947	Project	LNG Terminal	Non-FID
Update Date	04/08/2020		Non-Advanced
Description	The FSRU Polish Baltic Sea Coast project is planned as the first floating terminal is The project will offer its regasification capacities to the gas consumers in Poland via Gas Interconnection Poland-Lithuania and/or LNG ships) and in Central-Easter PL-SK and PL-UA interconnections). The implementation of the project supports ensuring LNG supplies for short and long-haul shipping (for bunkering service). fuels infrastructure for both road and sea transport. The project covers also the p Gdańsk, as well as with a new compressor station CS Pomorze.	and other countries in the Baltic Sea region ern Europe (supplies within the North-South the EU's efforts to reduce the sulphur cont The FSRU terminal also supports the develo	n (supplies to be directed n Gas Corridor via PL-CZ, ent of marine fuels by opment of alternative
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling							
Point	Operator	Year	From Gas System	To Gas System	Capacity		
FSRU Polish Baltic Sea Coast	GAZ-SYSTEM S.A.	2025	LNG_Tk_PL	PL	138.00 GWh/d		

		General Information	ND	P and PCI Information
100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission
	Operator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)
	Host Country	Poland	NDP Number	N/A
	Status	Planned	NDP Release Date	
	Website			<u>NDP URL</u>
			Currently PCI	Yes (5.1.1 (2020))
			Priority Corridor(s)	
	100%	100% Promoter Operator Host Country Status	OperatorGAZ-SYSTEM S.A.Host CountryPolandStatusPlanned	100%PromoterGAZ-SYSTEM S.A.Part of NDPOperatorGAZ-SYSTEM S.A.NDP NumberHost CountryPolandNDP NumberStatusPlannedNDP Release DateWebsiteProject's URLNDP WebsiteCurrently PCINDP NUMBER

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	03/2017	10/2017
FEED	01/2020	07/2022
Permitting	09/2019	07/2022
Supply Contracts		08/2020
FID		10/2022
Construction	03/2023	12/2025
Commissioning	2025	2025
Grant Obtention		
Date		

Technical Information (LNG)									
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
FSRU Polish Baltic Sea Coast	Yes	FSRU project	4.5	170,000	13.20	170,000	none	2025	0

	Fulfilled Criteria			
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas			
Specific Criteria Fulfilled Comments	- Diversification of supply, sources, routes and counterparts by enhancing the access to the global LNG market; - Reduction of dependence on a single supply sources in PL and other countries in the BEMIP and CEE regions; - Mitigation of exposure to supply disruptions from the East in the BEMIP and CEE regions; - Reduction of dependence on a single supply source in the CEE region; - Reduction of price differences between the BEMIP and North-West regions; - Reduction of emissions in the BEMIP and CEE regions by promoting natural gas in national economies.			
Expected Gas Sourcing				

urrent IYNDP : IYND	P 2020 - Annex A		Page 665 of 773
	Ben	efits	
Main Driver	Others		
Main Driver Explanation	Project driver: SoS, market demand, sustainability		
Benefit Description			
	Barı	riers	
Barrier Type	Description		
Financing	Availability of funds and associated conditions		
	CBCA	Finan	cial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	Nc
Submissin Date	not	Grants for studies amount	Mln EUR 0.0
		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Vebsite		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	Νο
Countries Net Cost Bear	rer	Comments	
Additional Comments		General Comments	

# GCP GAZ-SYSTEM/ONTRAS - incremental capacity project

TRA-N-1202	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Non-Advanced
Description	The incremental capacity project concerns the IP GCP GAZ-SYSTEM/ONTRAS. direction from Poland to GASPOOL. To meet the indicated demand for increm analyses related to the technical development of the Lasów gas station. The m In order to offer such incremental capacity, the Polish gas transmission system node and Lasów metering station.	ental capacity at this IP, GAZ-SYSTEM S.A. and aximum level of the capacity development is s	ONTRAS conducted et on 2,025,676 kWh/h.
PRJ Code - PRJ Name	-		
Capacity Increments Varia	nt For Modelling		

Point	Operator	Year	From Gas System	To Gas System	Capacity
GCP GAZ-SYSTEM/ONTRAS	GAZ-SYSTEM S.A.	2023	PL	DEg	48.60 GWh/d

Sponsors		General Information	NDP and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	No ((6) others - please comment below)
		Operator	GAZ-SYSTEM S.A.	NDP Number	
		Host Country	Poland	NDP Release Date	
		Status	Planned	NDP Website	
		Website	Project's URL	Currently PCI	No
				Priority Corridor(s)	

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Schedule Start Date	End Date	Third-Pa
easibility		Considered TPA Regime
sibility		Considered Tariff Regime
		Applied for Exemption
ng		Exemption Granted
ly Contracts		
		Exemption in entry direction
truction		Exemption in exit direction
issioning 2023	2023	
Obtention		

Pipelines and Compress	or Stations				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Kiełczów node - modern	sation				0
Lasow metering station	modernisation				0
	Total				
	Delays since last TYNDP				
Delay Since Last TYNDP					
Delay Explanation	The lack of NRAs' coordinated decisions regarding the project.				
	Benefits				
Main Driver	Market Demand				
Main Driver Explanation	The incremental process regarding extension of the GCP GAZ-SYSTEM/ONTRAS capacity s incremental capacity in the given point.	started in 2017 due t	o the inte	erest of market partic	ipants in the
Benefit Description					

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CBCA		Financial Assistance			
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we do not plan to submit it	Grants for studies	No		
Submissin Date		Grants for studies amount	Mln EUR 0.0		
Decision Date		Grants for works	No		
Website		Grants for works amount	Mln EUR 0.0		
Countries Affected		Intention to apply for CEF			
Countries Net Cost Bearer		Other Financial Assistance	No		
Additional Comments		Comments			
		General Comments			

## North - South Gas Corridor in Eastern Poland

TRA-N-245		Proj	ect	Р	ipeline including	g CS N	Non-FID
Update Date		Sec. 2	31/10/2019			Non	-Advanced
East Pola Description East alon	ern Europe. The corridor nd – Slovakia Interconne ern Poland towards PL-S	covers Eastern Pe ction. Implement K Interconnection t will also enhance	tute essential elements of the planned N pland and is planned to be connected to ration of the project will allow for signific and PL-UA Interconnection. This investr the access to the UGS Strachocina that gion.	two inter ant volum ment play	connectors, Poland nes of gas to be trar s a key role in the in	– Ukraine Intercon nsported via the contegration with the	nnection and orridor in e CEE region
PRJ Code - PRJ Name -							
Capacity Increments Variant For M	lodelling						
Point		Operat	or	Year	From Gas System	To Gas System	Capacity
		GAZ-S	YSTEM S.A.	2029	DScPL	PL	0.00 GWh/d
Aggregated Distribution (PL)			Comment: The is an internal project wh	hich is pla	nned to be connecte	ed to PL-SK, PL-UA interconnection	
Sponsors			General Information		NDP and	PCI Information	
Gas Transmission Operator GAZ-S	/STEM S.A. 100%	Promoter	GAZ-SYSTEM S.A.	Part of	NIND	es (National Ten-Ye	
		Operator	GAZ-SYSTEM S.A.		Sys	stem Development	Plan 2018-2023
		Host Country	Polana	NDP N	umber		N/
		Status	Plannea	NDP Re	elease Date		
		Website	Project's URL	NDP W	/ebsite		<u>NDP UI</u>
				Curren	tly PCI		Yes (6.2.2 (2020
				Driority	Corridor(s)		

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Schedule	Start Date	End Date
re-Feasibility		
easibility		
EED		
ermitting		
ply Contracts		
onstruction		
nmissioning	2029	2029
nt Obtention		
e		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Strachocina	up to 30 MW			30	0
Gustorzyn-Wronów pipeline		1,000	316		0
Hermanowice-Jarosław pipeline		1,000	39		0
Jarosław - Rozwadów pipeline		1,000	60		0
Płońsk-Uniszki Zawadzkie pipeline		1,000	72		0
Rembelszczyzna-Wronów pipeline		1,000	135		0
Rozwadów-Końskowola-Wronów pipeline		1,000	103		0
	Total		725	30	

	Fulfilled Criteria
Specific Criteria Fulfill	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Securit of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfill	the project is an internal enabler for PL-SK and PL-UA interconnections. Its implementation will have an impact on: Market integration: - Creation of a well-integrated and functioning market in the CEE region. SoS: - Mitigation of exposure to supply disruptions in CEE countries; - Reduction of dependence on gas supplies from Russia in the CEE region; - Bringing new route for natural gas to the south-eastern part of Poland which has developed gas transmission system and storage facilities. Competition: - Reduction of price differences between the CEE and North-West regions; - Enhanced access to new sources of supply in the CEE region (LNG, NO supplies). d) Sustainability - Reduction of emissions in the CEE region by promoting natural gas in national economies.
	Benefits
Main Driver	Others
Main Driver Explanation	Regulation SoS, market demand, sustainability
Benefit Description	The project will allow to transport significant volumes of gas via PL-SK and PL-UA Interconnections. It will also enhance the access to the UGS Strachocina that have large expansion potential and may serve as essential security of supply infrastructure in the CEE region. Construction of the pipelines within this project, together with completion of the PL-SK Interconnection and PL-UA Interconnection, will have a positive impact on the competition in the CEE region, as the project will provide a possibility to open the market for more gas suppliers. This would in turn mean ending the state of major dependency on one single gas supplier for the countries in the respective regions thanks to the potential access to gas deliveries from new sources.
	Barriers
Barrier Type	Description
Permit Granting	Efficient permitting procedures are necessary for timely implementation of the project.
Others	Due to the project drivers which are mainly related to SoS in Central-Eastern Europe, the project does not meet the criterion of economic viability, so the external co-financing is indispensable. Lack of external financial support may be a serious barrier in implementation.
Financing	Due to the project drivers which are mainly related to SoS in Central-Eastern Europe, the project does not meet the criterion of economic viability, so the external co-financing is indispensable. Lack of external financial support may be a serious barrier in implementation.

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CBCA	Financial Assistance			
No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
and we do not plan to submit it	Grants for studies	No		
	Grants for studies amount	Mln EUR 0.0		
	Grants for works	No		
	Grants for works amount	Mln EUR 0.0		
	Intention to apply for CEF			
	Other Financial Assistance	Yes		
	Comments			
	General Comments			
		No, we have not submitted an investment request yet, and we do not plan to submit itApplied for CEFGrants for studiesGrants for studies amountGrants for worksGrants for worksGrants for works amountIntention to apply for CEFOther Financial AssistanceComments		

## North - South Gas Corridor in Western Poland

TRA-F-247	Project	Pipeline including CS	FID			
Update Date	09/12/2019		Advanced			
Description	The investment tasks within the project constitute essential elements of the planned North-South gas interconnections in Central-Eastern Europe. The corridor covers Western Poland and it is planned to be connected to PL-CZ Interconnection. Implementation of the investment tasks within this project will allow for exploiting full potential of gas transmission from LNG Terminal in Świnoujście and Baltic Pipe through the North-South gas corridor to other CEE countries. This infrastructure will be used for purpose of PL-CZ Interconnection.					
PRJ Code - PRJ Name	-					
Capacity Increments Varia	nt For Modelling					

cupacity increments variant for modeling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Aggregated Distribution (PL)	GAZ-SYSTEM S.A.	2021	DScPL	PL	0.00 GWh/d

Sponsors		General Information	NDP and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission
		Operator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)
		Host Country	Poland	NDP Number	N/A
		Status	Planned	NDP Release Date	
		Website	Project's URL	NDP Website	<u>NDP URL</u>
				Currently PCI	No
				Priority Corridor(s)	

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Date End Date	Third-Party Access F         Considered TPA Regime         Considered Tariff Regime	Regulate
2013 08/2017	J. J	_
2013 08/2017	Considered Tariff Regime	Regulate
2013 08/2017		5
	Applied for Exemption	٨
2014 08/2017	Exemption Granted	Not Relevar
11/2017	Exemption in entry direction	0.00
017 03/2021	Exemption in exit direction	0.00
2021 2021		
	2014 08/2017 11/2017 017 03/2021	2014     08/2017     Exemption Granted       11/2017     Exemption in entry direction       017     03/2021     Exemption in exit direction

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Kędzierzyn				30	0
Kędzierzyn Node					0
Tworóg-Kędzierzyn Koźle pipeline		1,000	43		0
Zdzieszowice - Wrocław pipeline		1,000	130		0
Zdzieszowice-Kędzierzyn Koźle		1,000	19		0
	Total		192	30	

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	Benefits						
Main Driver	Others						
Main Driver Explanation	The project is driven by SoS, market demand considerations and sustainability						
Benefit Description	Implementation of the investment tasks within this project will allow for ensuring full functionality of PL-CZ Interconnection. This project will have an impact on: enhancing functionality of transmission system in Central and Southern Poland in order to facilitate better operational functioning of the upgraded PL-CZ Interconnection; increasing the security of supply sources, routes and counterparts, as well as on providing an overall flexibility for the CEE region; improving European gas grid interconnections; creating a well-functioning internal market in the CEE region by ensuring high reliability of the cross-border transmission between Poland and the Czech Republic; promoting natural gas as a low emission source of energy in the economy.						

	СВСА	Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	31/10/2013	Grants for studies	Yes	
Decision Date	24/06/2014	Grants for studies amount	Mln EUR 0.0	
Website	<u>CBCA URL</u>	Grants for works	No	
Countries Affected		Grants for works amount	Mln EUR 0.0	
Countries Net Cost Bearer		Intention to apply for CEF		
Additional Comments		Other Financial Assistance	Yes	
			Structural Funds (Operational Programme Infrastructure and Environment 2014-2020): - Tworóg - Kędzierzyn-Koźle; - Zdzieszowice- Wrocław.	
		Comments		
			Zdzieszowice- Wrocław: TEN-E: " Studies and preinvestment works related to the utilization and further development possibilities of the Interconnector Poland - Czech Republic"	
		General Comments		

			U	GS Damasławek				
UGS-N-914			Project			Storage Facili	ty l	Non-FID
Update Date	04/10/2019						Nor	n-Advanced
Description fac	cility with the gas e point of view of	transmiss SoS and	ion system. The initial competition perspection	cility in salt caverns in Damasławe I working gas volume will amount ive. It will also be instrumental in t y in Damasławek and a connecting	for 800 m erms of e	ncm. UGS Damasławe nsuring proper funct	ek will play an implient in the second se	ortant role from
PRJ Code - PRJ Name -								
Capacity Increments Variant For	Modelling							
Point			Operator		Year	From Gas System	To Gas System	Capacity
Democlawak (PL)			GAZ-SYSTEM	M S.A.	2026	STcPL	PL	200.00 GWh/c
Damasławek (PL)			GAZ-SYSTEM	M S.A.	2026	PL	STcPL	100.00 GWh/c
Sponsors			Ge	eneral Information		NDP and	d PCI Information	
Gas Transmission Operator GAZ-	SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.	A. Part (	of NDP	es (National Ten-Y	ear Transmission
			Operator	GAZ-SYSTEM S.		Sriver Sy	stem Development	Plan 2020-2029
			Host Country	Polar	nd NDP	Number	Ν	
			Status	Planne	ed NDP	Release Date		
				i turine				
			Website	<u>Project's Ul</u>		Website		NDP URI

Priority Corridor(s)

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2026	2026
Grant Obtention		
Date		

Technical Information (UGS)									
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Capacity	(%)	Comments	Commisioning Year
UGS Damasławek	Salt Cavern	Yes	UGS Damaslawek	800	8.9	17.7	75		2026

	Benefits	
Main Driver	Others	
Main Driver Explanatio	on Project drivers: SoS, market demand	
Benefit Description		

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	CBCA	Financial Assistance			
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we do not plan to submit it	Grants for studies	No		
Submissin Date		Grants for studies amount	Mln EUR 0.0		
Decision Date		Grants for works	No		
Website		Grants for works amount	Mln EUR 0.0		
Countries Affected		Intention to apply for CEF			
Countries Net Cost Bearer		Other Financial Assistance	No		
Additional Comments		Comments			
		General Comments			

# Upgrade of LNG terminal in Świnoujście

LNG-F-272	Project	LNG Terminal	FID
Update Date	22/11/2019		Advanced
Description	<ul> <li>The project includes the extension of the regasification capacity from 5 bcm/y to 7 elements:</li> <li>Additional submerged combustion vaporizers (SCVs);</li> <li>Third LNG storage tank of min 160.000 cm LNG;</li> <li>Second jetty;</li> <li>Rail loading terminal;</li> <li>The terminal will provide for small scale services covering bunkering, reloading to see The expansion would entail increasing plant's regasification capacity and supply of through which the Polish LNG terminal could become a prominent reloading deport bunkering vessels with LNG.</li> </ul>	maller vessels, trans-shipment and rail loa highly-specialized LNG reloading service t	ding. for smaller vessels,
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Swinewingin	GAZ-SYSTEM S.A.	2023	LNG_Tk_PL	PL	76.57 GWh/d
Swinoujscie	Polskie LNG S.A.	2023	LNG_Tk_PL	PL	76.57 GWh/d

Sponsors	Genera	Information	NDP and PCI Information			
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission	
		Operator	Polskie LNG S.A.		System Development Plan 2018-2027)	
		Host Country	Poland	NDP Number	N/A	
		Status	Planned	NDP Release Date		
		Website	Project's URL	NDP Website	NDP URL	
				Currently PCI	No	
				Priority Corridor(s)	BEMIP	

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Schedule	Schedule Start Date End Date		Start Date End Date				
Pre-Feasibility							
Feasibility	04/2015	12/2017					
FEED	12/2017	06/2018					
Permitting	08/2017	01/2019					
Supply Contracts							
FID		05/2018					
Construction	04/2018	05/2023					
Commissioning	2023	2023					
Grant Obtention							
Date							

Technical Information (LNG)									
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
LNG terminal in Świnoujście	Yes	Extension	2.5	90,000	6.86	180,000	N/A	2023	50

#### **Fulfilled Criteria**

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

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	Ben	efits					
Main Driver	Others						
Main Driver Explanation	Implementation of the project is driven by SoS and market demand considerations						
Benefit Description	The extension of the LNG terminal in Świnoujście will have an imp supply routes, sources (new physical source of supply for both re regional markets; promoting natural gas as a reliable, competitive transport); creating a physical hub in Swinoujscie and/or a virtual forecasted growth of the gas demand in Poland and possible leve The LNG terminal in Świnoujście contributes to the NSI EAST corr system in Poland, PL-CZ PL-SK and PL-UA interconnections toward	gions) and counterparts (access t e and environmentally-friendly so hub in Poland; establishing adec erage for market coupling poten idor, as the supplies from Świno	o global LNG market); enhancing competition on burce of energy e.g. in the transport sector (maritime quate technical conditions necessary to cover the cial in the Baltic Sea region and in Central-Eastern Europe				
	Bar	riers					
Barrier Type	Description						
Others	Possible lack of risk-taking in the private gas sector which would infrastructure operator. It could be mitgated by external susbisdie (reduction of emissions due to fuel change in maritime transport)	es (EU) to cover positive external	ties such as SoS, positive environmental impact				
Financing	Availability of funds and associated conditions						
Regulatory	Capacity quotas						
Regulatory	Low rate of return						
Market	Lack of market maturity						
	CBCA		Financial Assistance				
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received ( decisio				
Submissin Date		Grants for studies	~				
Decision Date		Grants for studies amount	Mln EUR 0.				
Website		Grants for works	٨				
Countries Affected		Grants for works amount	Mln EUR 0.				
Countries Affected Countries Net Cost Bear	er	Grants for works amount Intention to apply for CEF	Mln EUR 0				
	er						
Countries Net Cost Bear	er	Intention to apply for CEF	Min EUR 0. N				

			ado Compressor Station				
TRA-A-320	Project			Pipeline including CS			lon-FID
Update Date	15/08/2019		15/08/2019			Ac	dvanced
Description		at higher flow rates o	e main high pressure pipeline and it a an be transported from the Sines LNG Spanish Border).				
PRJ Code - PRJ Name							
Capacity Increments Varia	nt For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Sines		REN - Gaso	,	2025	LNG_Tk_PT	PT	92.80 GWh/d
			Comment: Incremental capacity in p	ipeline I	network from Sines LN	NG regaseification.	
Sponsors		G	eneral Information		NDP and	PCI Information	
REN Gasodutos, SA	100%	Promoter	REN-Gasodutos, S.A.	Part c	of NDP	Yes (PDIR	GN 2018 - 202
		Operator	REN - Gasodutos, S.A.	NDP	Number		
		Host Country	Portugal	NDP	Release Date		19/12/201
		Status	Planned	NDP	Website		<u>NDP UF</u>
		Website	<u>Project's URL</u>	Curre	ntly PCI		Ν
				Priori	ty Corridor(s)		

<b>Current TYNI</b>	<b>DP : TYNDP</b>	2020 -	Annex A
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Schedule	Schedule Start Date End Date			Start Date End Date				
Pre-Feasibility		01/2010						
Feasibility	09/2008	01/2010						
FEED	08/2010	11/2010						
Permitting	02/2014	07/2016						
Supply Contracts		10/2023						
FID		05/2023						
Construction	01/2024	12/2025						
Commissioning	2025	2025						
Grant Obtention								
Date								

Pipelines and Compressor Sta		Diameter	Length	Compressor Power	Comissioning
Pipeline Section	Pipeline Comment	(mm)	(km)	(MW)	Year
Setubal - Leiria (Lote 1)	Carregado Compressor Station.			14	2025
	Total			14	
	Delays since last TYNDP				
Delay Since Last TYNDP	3 years				
Delay Explanation	The investment in this infrastructure should be decided in future NDP. The set 5.4 - 3rd interconnection between Portugal and Spain (TRA-N-283), which in				the PCI project
	Expected Gas Sourcing				
LNG (DZ,LY,MX,NO,QA,RU,SA,	ES,AE,US,VE,WO,YE)				

	Ben	efits	
Main Driver	Market Demand		
Main Driver Explanation	on Se comments below.		
Benefit Description	The project aims to increase the capacity of the pipeline section between Sines and Leiria, to enable that higher flow rat Sines LNG Terminal. The project will increase the interoperability and system flexibility and consequently support interm from the high share of wind generation capacity installed in Portugal and Spain. With the expansion of the Sines LNG Te		
	Bar	riers	
Barrier Type			
barner rype	Description In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the approxest of		
Regulatory	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost r ensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur.	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic	revenue cap regimes). These revenues will be ce that it is not possible to predict if, when and
Regulatory	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost re- ensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur.	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic Finan	revenue cap regimes). These revenues will be ce that it is not possible to predict if, when and ncial Assistance
Regulatory	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost r ensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur.	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic <b>Finan</b> Applied for CEF	revenue cap regimes). These revenues will be ce that it is not possible to predict if, when and ncial Assistance (3) No, we have not applied for CER
Regulatory Decision	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost rensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur. CBCA No, we have not submitted an investment request yet,	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic Finan	revenue cap regimes). These revenues will be ce that it is not possible to predict if, when and ncial Assistance (3) No, we have not applied for CEI No
Regulatory Decision Submissin Date	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost rensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur. CBCA No, we have not submitted an investment request yet,	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic Finan Applied for CEF Grants for studies	revenue cap regimes). These revenues will be ce that it is not possible to predict if, when and ncial Assistance (3) No, we have not applied for CEI N Mln EUR 0.4
Regulatory Decision Submissin Date Decision Date	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost rensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur. CBCA No, we have not submitted an investment request yet,	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic Finan Applied for CEF Grants for studies Grants for studies amount	ncial Assistance (3) No, we have not applied for CEH Min EUR 0.0 No
Regulatory Decision Submissin Date Decision Date Website	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost rensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur. CBCA No, we have not submitted an investment request yet,	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic Finan Applied for CEF Grants for studies Grants for studies amount Grants for works	revenue cap regimes). These revenues will be ce that it is not possible to predict if, when and ncial Assistance (3) No, we have not applied for CEF No Mln EUR 0.0 Mln EUR 0.0
Regulatory Decision Submissin Date Decision Date Website Countries Affected	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost rensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur. CBCA No, we have not submitted an investment request yet, and we do not plan to submit it	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic Finan Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount	revenue cap regimes). These revenues will be ce that it is not possible to predict if, when and ncial Assistance (3) No, we have not applied for CEF No MIn EUR 0.0 No, we do not plan to apply
	In simple terms and according to the current Portuguese regulation of the project plus the amortization recovery and the opex cost rensured through the payment of regulated TPA tariffs by network to what extent any changes to this model may occur. CBCA No, we have not submitted an investment request yet, and we do not plan to submit it	ecovery (subject to a mix of price cap and r c users Nevertheless, it's important to notic Finan Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works Intention to apply for CEF	revenue cap regimes). These revenues will be ce that it is not possible to predict if, when and

# Bilciuresti daily withdrawal capacity increase

UGS-F-311	Project	Storage Facility	FID
Update Date	18/11/2019		Advanced
Description	Upgrade of the surface facilities : compressor station, new dehydration unit, upgr the compressor station and the well field. The project also includes drilling of fou The project aims to increase the withdrawal rate from 14 million cm/day to 18 m	ur new wells.	ecting pipeline between
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	SNGN ROMGAZ SA - FILIALA DE				
VIP Romgaz UGS (RO)	INMAGAZINARE GAZE NATURALE	2025	STcRO	RO	42.00 GWh/d
	DEPOGAZ PLOIESTI SRL				

Sponsors		General Information	ND	P and PCI Information
SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL 1009	Promoter	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE	Part of NDP NDP Number	No ((2) no NDP exists in the country)
		NATURALE DEPOGAZ PLOIESTI SRL SNGN ROMGAZ SA - FILIALA DE	NDP Release Date NDP Website	
	Operator	INMAGAZINARE GAZE	Currently PCI	No
	operator	NATURALE DEPOGAZ PLOIESTI SRL	Priority Corridor(s)	NSIE
	Host Country	Romania		
	Status	In Progress		
	Website			

Current TYNDP : TYNDP 2020 - Annex A	Current	TYNDP	: TYNDP	2020 -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2015
Feasibility	03/2016	03/2017
FEED	12/2017	07/2020
Permitting	05/2018	12/2020
Supply Contracts		06/2023
FID		06/2017
Construction	05/2018	09/2025
Commissioning	2025	2025
Grant Obtention Date		

			Technical Information	(UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase		Withdrawal Capacity (mcm/d)		(%)	Comments	Commisioning Year
Bilciuresti	Depleted Field	No	Bilciuresti daily withdrawal capacity increase	0	5.0	0.0	80		2025

	Fulfilled Criteria
Specific Criteria Fulfilled	Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	5

**Expected Gas Sourcing** 

Romania

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	Benefits
Main Driver	Others
Main Driver Explanation	Higher delivery rate of gas per day. The project aims at supplying directly or indirectly at least two Member States and although it meets the competition, market integration, security of supply and sustainability criteria, the project's main contribution is to the European security of supply, given its complementarity to future major pipeline projects in Romania developed by SNTGN Transgaz S.A creating on one hand interconnections with the NTS of neighboring Member States (HU and BG) and on the other hand access to the newly discovered gas resources in the Black Sea, which are expected to be monetized soon.
Benefit Description	Its main regional benefits are: (a) SoS will benefit from the increase of withdrawal capacity, (b) increase the flexibility of the storage system, (c) contribution to the sustainability and flexibility of the transmission system especially of high pressure pipelines, (d) reduction of dependency on Russian gas, and (e) support for Romania's gas export potential.
	Barriers
Barrier Type	Description
Regulatory	Lack of stability of the methodologies regarding tariffs computation - under current regulations the project would increase the storage tariffs at a level which makes the storage business less attractive and don't respond to the increasing demands of the gas market.
Political	Frequent changes in legislation
Market	Reduced market demand from the companies acting on the gas market due to availability of gas imports
Financing	Due to the characteristics of the storage business, financial institutions are not interested to support such project yet.
Regulatory	Low rate of return
Market	Lack of market maturity
Market	Lack of market support
Financing	Amortization rates

	CBCA	Financi	Financial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we do not plan to submit it	Grants for studies	No		
Submissin Date		Grants for studies amount	Mln EUR 0.0		
Decision Date		Grants for works	No		
Website		Grants for works amount	Mln EUR 0.0		
Countries Affected		Intention to apply for CEF	Yes, for work only		
Countries Net Cost Bearer		Other Financial Assistance	No		
Additional Comments		Comments			
		General Comments			
Countries Net Cost Bearer		Other Financial Assistance Comments	Ye		

	Depomures		
UGS-A-233	Project	Storage Facility	Non-FID
Update Date	25/08/2020		Advanced
Description	The project consists in the revamping and expansion of an existing gas storag rationale of the project is three fold (i) increase operational independence by rented from another party (ii) gradually expand the storage capacity (from 300 and (iii) increase flexibility of the storage by increasing injection and withdraw mcm/day after implementation of the second stage. The implementation of the first stage has already been completed with a part phase I of the development project is expected in 2019. The project contribute possible gas export in the region.	building its own compression unit as currently of 0 mcm to 400 mcm in a first stage and to 600 m ring capacity from the existing average 1.7 mcm ial investment commissioned in Q1 2018, while	compression services are ncm in a second stage) n/ day to approx. 5.0 the FID for the entire
PRJ Code - PRJ Name			

<b>Capacity Increments Variant For Modelling</b>					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Depomures	2021	STcRO	RO	18.92 GWh/d
UGS Targu Mures	Depomures	2021	RO	STcRO	18.92 GWh/d
	Depomures	2024	STcRO	RO	15.78 GWh/d
	Depomures	2024	RO	STcRO	15.78 GWh/d

Sponsors			General Information	NDP and PCI Information		
GDF International	59%	Promoter	Engie Romania SA	Part of NDP	Yes (National Gas Transmission System	
SNGN Romgaz SA	40%	Operator	Depomures		Developpment Plan 2018-2027)	
SNON KONYUZ SA	4070	Host Country	Romania	NDP Number	8.5	
FORAJ SONDE SA	0%	Status	In Progress		14/12/2018	
MIF SA	0%	Website	Project's URL	NDP Website	NDP URL	
				Currently PCI	Yes (6.20.4 (2020))	
				Priority Corridor(s)		

Current	TYNDP	: TYNDP 2	2020 - Annex A	
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Schedule	Start Date	End Date
Pre-Feasibility		06/2004
Feasibility	06/2008	06/2009
FEED	06/2011	06/2012
Permitting	06/2012	09/2017
Supply Contracts		08/2016
FID		12/2019
Construction	01/2020	03/2024
Commissioning	2021	2024
Grant Obtention Date		

Technical Information (UGS)									
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	(%)	Comments	Commisioning Year
Targu Mures	Depleted Field	No	Phase 1	100	1.8	1.8	100		2021
Targu Mures	Depleted Field	No	Phase 2	200	1.5	1.5	100		2024

#### **Fulfilled Criteria**

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

Although the project meets all the criteria, the most significant contribution it brings is to the EU's security of supply. - The project group increases the remaining flexibility for Romania. - The project group partially mitigates risk of demand curtailment in case of Ukrainian disruption in Romania. - The project group allows for partially mitigates risk of demand curtailment in Romania in case of disruption of the single largest infrastructures in Romania (VIP Mediesu Aurit - Isaccea (RO-UA)).

<b>Current TYI</b>	NDP : TYNI	OP 2020 -	Annex A
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	Delays since last TYNDP
Delay Since Last TYNDP	3 years for Phase 2
Delay Explanation	The main delay encountered is related to permit granting for part of the investment (i.e. the last sector of the main gathering pipeline). The construction of the main gathering pipeline was essential for the entire project and a pre-requisite for implementing the rest of the project (dehydration and compression station and subsequent expansion to 600 mcm of the capacity). The permit was eventually obtained in September 2017. In addition, the lack of visibility and certainty on tariff methodology represents an important drawback when it comes for taking the FID and obtaining the necessary financing sources.
	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	In addition to those mentioned in the additional comments to the specific criteria, the project is even more important in the current rather potentially unstable geo-political context in the far Eastern Europe in which having sufficient capacities of the gas storage facilities may become critical for ensuring security of supply both in Romania and the neighboring countries, particularly during the periods with high / peak demands.
Benefit Description	By increasing storage deliverability, transmission capacity in Southern Romania is relieved thus creating the premises for potential exports towards Bulgaria and Southern Europe in general and increasing resilience in general in various supply disruption scenarios thus contributing to a more integrated European gas market. On the other hand, insufficient storage capacity may create uncertainty in terms of energy pricing and hence the region might face more volatile winter gas prices and, at least on the short and medium term, may become too dependent on energy imports. The implementation of the project would also increase the competition on the Romanian storage market considering that currently there are only 2 players: Depomures, the private operator with ~10% market share and Romgaz, state owned, with ~90% market share. Also, increased flexible storage services coupled with higher regional market integration and liberalization are key in the light of the future expected developments.
	Barriers
Barrier Type	Description
Regulatory	Since the storage in Romania is regulated, the tariff methodology and concerned regulation must be clear and incentivising allowing to recover all investments costs engaged; hence the authorities should take an engagement to keep such a regulation stable on the medium to long term.
Permit Granting	The permit granting process has been delayed due to difficulties in obtaining the building permit from local administration for the last section of the main collector pipeline, which eventually delayed the implementation of the entire project.
inancing	Availability of funds and associated conditions
Regulatory	Low rate of return
Regulatory	Low or zero-priced short-term capacity

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	CBCA	Financia	l Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturing Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	No accision yer taken
Countries Net Cost Bearen			NO
Additional Comments		Comments	
		General Comments	

# Development on the Romanian territory of the NTS (BG-RO-HU-AT)-Phase I

TRA-F-358	Project	Pipeline including CS	FID
Update Date	22/09/2020		Advanced
Description	<ul> <li>The project consists in the building of a gas transmission pipeline connectin and the construction of three gas compressor stations along the pipeline role</li> <li>Podişor – Recaş 32" x 63 bar gas transmission pipeline approximately 479</li> <li>three gas compressor stations (Podişor CS, Bibeşti CS and Jupa CS), each seensure bi-directional gas flow.</li> <li>After the implementatiopn of the project the following transmission capacitie</li> <li>towards Hungary: 1.75 bcm/year;</li> <li>towards Bulgaria: 1.5 bcm/year.</li> </ul>	ute (Jupa CS, Bibești CS and Podișor CS) as follow km long; tation being equipped with two compressors, wit	IS:
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Csanadpalota	SNTGN Transgaz S.A.	2020	RO	HU	47.75 GWh/d
	SNTGN Transgaz S.A.	2019	RO	BGn	20.80 GWh/d
Ruse (BG) / Giurgiu (RO)	SNTGN Transgaz S.A.	2020	RO	BGn	20.75 GWh/d

Sponsors			General Information	NDP and PCI Information		
SNTGN Transgaz S.A.	100%	Promoter	SNTGN Transgaz S.A.	Part of NDP	Yes (Development Plan for the National	
		Operator	SNTGN Transgaz S.A.		GTS 2018-2027)	
		Host Country	Romania	NDP Number	7.1.1	
		Status	In Progress	NDP Release Date	14/12/2018	
		Website	<u>Project's URL</u>	NDP Website	NDP URL	
			, i i i i i i i i i i i i i i i i i i i	Currently PCI	Yes (6.24.1.2 (2020))	
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		12/2013
Feasibility	01/2014	12/2014
FEED	07/2015	02/2017
Permitting	01/2014	02/2018
Supply Contracts		08/2017
FID		11/2016
Construction	12/2017	12/2020
Commissioning	2019	2020
Grant Obtention Date	09/09/2016	09/09/2016

Pipelines and Compressor Sta	ations				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Phase I: Podisor-Recas		800	479	28	2020
	Total		479	28	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Security of Supply, inter alia through appropriate connections and div	ersification of supply sources	s, supplyir	ng counterparts and r	routes

Specific Criteria Fulfilled Comments Phase I – Security of supply

	Delays since last TYNDP				
Delay Since Last TYNDP	Stage 1- 9 months delay in commissioning Stage 2 – 21 months in commissioning				
Delay Explanation	Due to delays occurred in the tendering procedures, the promotion of pieces of laws required for the implementation, the discovery of archaeological sites along the pipeline route and the unfavourable weather conditions, it is currently estimated that even if parts of the project will be completed in 2019, the entire project will be completed by 2020.				
	Expected Gas Sourcing				

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		Benefits	
Main Driver	Regulation SoS		
Main Driver Explanation			
Benefit Description			

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	12/10/2015	Grants for studies	Yes
Decision Date	06/10/2015	Grants for studies amount	Mln EUR 1.5
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Hungary, Romania	Grants for works amount	Mln EUR 179.3
Countries Net Cost Bearer	Hungary;#Romania	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

# Development on the Romanian territory of the Southern Transmission Corridor

TRA-A-362	Project	Pipeline including CS	Non-FID
Update Date	28/10/2019		Advanced
Description	<ul> <li>Pipeline with a total length of approximately 308.3 km, it is a telescopic pipeline service of 63 bar. The two sections of the pipeline are:</li> <li>Section I, Black Sea shore – Amzacea, 32.4 km long, will have a diameter of</li> <li>Section II, Amzacea – Podişor, 275.9 km long, will have a diameter of Ø 40'</li> </ul>	<sup>5</sup> Ø 48″ (Dn1200);	transmit gas at a
PRJ Code - PRJ Name	- //		

Sponsors		General Information		NDP and PCI Information		
А		Promoter	SNTGN Transgaz SA	Part of NDP	Yes (The National Gas Transmission	
SNTGN Transgaz SA	100%	Operator	SNTGN Transgaz S.A.		System Development Plan 2018-2027)	
Default		Host Country	Romania	NDP Number	7.2	
	250/	Status	Planned	NDP Release Date	14/12/2018	
GOGC (GE)	25%	Website	Project's URL	NDP Website	<u>NDP URL</u>	
MVM (HU)	25%	T COOLC	<u> </u>	Currently PCI	Yes (6.24.4.5 (2020))	
ROMGAZ (RO)	25%			Priority Corridor(s)		
SOCAR (AZ)	25%					

Current TYNDP : TYNDP 2020 - Annex A	Current
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Schedule	Start Date	End Date
Pre-Feasibility		06/2014
Feasibility	07/2014	01/2016
FEED	06/2016	02/2018
Permitting	01/2015	05/2018
Supply Contracts		
FID		12/2019
Construction	12/2019	12/2021
Commissioning	2021	2021
Grant Obtention		
Date		

Pipelines and Compressor Sta	tions				
Pipeline Section Pipeline Comment			Length (km)	Compressor Power (MW)	Comissioning Year
Black Sea shore - PodişorThe pipeline is telescopic, the diameter is reduced to 1,000 mm			308		2021
	Total		308		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterpart appropriate connections and diversification of supply sources, supplying counterpart emissions, supporting intermittent renewable generation and enhancing deployment	s and routes,	Sustainab		
Specific Criteria Fulfilled Comm	nents Security of supply, Market Integration, Sustainability, Competition				
	Delays since last TYNDP				
Delay Since Last TYNDP					
Delay Explanation	Because of the postponement of the final investment decision of the titleholders of t	he Black Sea b	locks		

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### Black Sea

		Benefits
Main Driver	Market Demand	
Main Driver Explan	nation	
	- Increase of competition through the diversification of gas	ources and transmission routes, and the emerging of new players on the regional gas market,
Benefit Description	with positive effects on the gas price, decreasing thus marke	t concentration for each impacted country; - Increase of sustainability through diminishing

**Expected Gas Sourcing** 

CO2 emissions, as a result of replacing gas with liquid (oil) or solid fossil fuels (coal) with higher CO2 emissions.

	CBCA	Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culturizzin Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF		
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer		Comments		
Additional Comments		General Comments		



14.00 GWh/d

	Falticeni UGS				
UGS-N-399	Project		Storage Facilit	:y N	lon-FID
Update Date	28/08/2019			A	dvanced
Description	The project aims to transform one or several depleted gas fields in gas storage of 1.4 mmc/day and withdrawal capacity of approximately 2 mil mc/day	facilities of app	proximately 200 mil m	nc total capacity ar	n injection rate
PRJ Code - PRJ Name	-				
Capacity Increments Varia	nt For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL	2029	STcRO	RO	18.00 GWh/d
VIP Romgaz UGS (RO)	SNGN ROMGAZ SA - FILIALA DE				

INMAGAZINARE GAZE NATURALE

DEPOGAZ PLOIESTI SRL

2029

RO

Sponsors		General Information		NDP and PCI Information	
SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL	00% Promoter	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE	Part of NDP NDP Number	No ((2) no NDP exists in the country,	
		NATURALE DEPOGAZ PLOIESTI SRL	NDP Release Date		
		SNGN ROMGAZ SA - FILIALA DE	NDP Website		
	Operator	INMAGAZINARE GAZE	Currently PCI	No	
	Operator	NATURALE DEPOGAZ PLOIESTI SRL	Priority Corridor(s)		
	Host Country	Romania			
	Status	Planned			
	Website	Project's URL			

STcRO

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Schedule	Schedule Start Date End	
Pre-Feasibility		
Feasibility	03/2020	03/2021
FEED	02/2024	02/2025
Permitting	03/2025	03/2026
Supply Contracts		10/2027
FID		11/2023
Construction	09/2026	03/2029
Commissioning	2029	2029
Grant Obtention Date		

			Technical Information	n (UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor (%)	Comments	Commisioning Year
Falticeni UGS	Depleted Field	No	Falticeni new UGS	200	2.0	1.4	90	This is a one phase project. Expected Load Factor to be updated by the Feasibility Study	2027
			Expected Gas Sour	rcing					
Romania									

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	Benefits
Main Driver	Others
Main Driver Explanation	The project aims at supplying with gas, directly or indirectly, the northern part of the country. it meets the market integration, security of supply and sustainability criteria
Benefit Description	Its main regional benefits are: (a) SoS in the region, (b) increase the flexibility of the storage system,
	Barriers
Barrier Type	Description
Regulatory	Lack of stability of the methodologies regarding tariffs computation - under current regulations the project would increase the storage tariffs at a level which makes the storage business less attractive and don't respond to the increasing demands of the gas market
Political	Frequent changes in legislation
Market	Reduced market demand from the companies acting on the gas market due to availability of gas imports
Financing	Due to the characteristics of the storage business, financial institutions are not interested to support such project yet
Regulatory	Low rate of return
Financing	Amortization rates
Financing	Availability of funds and associated conditions
Market	Lack of market maturity
Market	Lack of market support

	CBCA	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	Yes, for work only
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

# Further enlargement of the BG—RO—HU—AT transmission corridor (BRUA) phase 3

TRA-N-959	Project	Pipeline including CS	Non-FID
Update Date	22/11/2019		Non-Advanced
Description	<ul> <li>Development of gas transmission capacity on the Oneşti – Coroi – Haţeg Sea shore or from other on-shore blocks.</li> <li>The development of this gas transmission corridor requires:</li> <li>the rehabilitation of some of the NTS existing pipelines;</li> <li>replacement of some of the NTS existing pipelines with new pipelines or</li> <li>development of 4 or 5 new compressor stations having a total installed</li> </ul>	r the building of new pipelines installed in parallel	
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Granadhalata 2	SNTGN Transgaz S.A.	2023	HU	RO	128.73 GWh/d
Csanadpalota 2	SNTGN Transgaz S.A.	2023	RO	HU	128.73 GWh/d

Sponsors			General Information	NDP and PCI Information		
SNTGN Transgaz SA	100%	Promoter	SNTGN Transgaz SA	Part of NDP	Yes (The National Gas Transmission	
		Operator	SNTGN Transgaz S.A.		System Development Plan 2018-2027)	
		Host Country	Normania		7.5	
		Status	Planned	NDP Release Date	14/12/2018	
		Website		NDP Website	<u>NDP URL</u>	
				Currently PCI	No	
				Priority Corridor(s)	NSIE	

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Schedule Start Da	te End Date	Third-Party Access
sibility		Considered TPA Regime
sibility		Considered Tariff Regime
		Applied for Exemption
itting		Exemption Granted
y Contracts		
		Exemption in entry direction
truction		Exemption in exit direction
iissioning 20	23 2023	
t Obtention		

Pipeline Section	Section Pipeline Comment		Length (km)	Compressor Power (MW)	Comissioning Year
Onesti - Nadlac	adlac existing pipelines + rehabilitation + new pipelines 813 843			82	2023
	Total		843	82	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterp appropriate connections and diversification of supply sources, supplying counterpar emissions, supporting intermittent renewable generation and enhancing deploymer	rts and routes,	Sustainab		-
	emissions, supporting intermittent renewable generation and emianeing deployment		5		
Specific Criteria Fulfilled Comr			5		
Specific Criteria Fulfilled Comr			5		

Caspian Region, LNG (), Black Sea or other on-shore blocks

Market Demand

Main Driver

Main Driver Explanation

Benefit Description

	CBCA	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	but we do plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

Benefits

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# Ghercesti underground gas storage in Romania

UGS-N-398	Project	Storage Facility	Non-FID
Update Date	28/08/2019		Advanced
Description	Ghercesti Underground Storage in Romania consists in the increase of working ca 450 Mcm/cycle, and enhanced withdrawal capacity of up to 5 million cm/day. Th module, - one dehydration unit; - 80 km of connecting pipeline; The geological s the project is to: (a) fulfilling of N-1 rule at regional level, (b) increase the flexibilit flexibility of the transmission system, (d) reduce dependency on Russian gas etc.	e required investment consists of: - construct suitability is backed up by existing reservoir	ction of two compressor studies. The rationale of
PRJ Code - PRJ Name	- / 2		

Point	Operato	pr	Year	From Gas System	To Gas System	Capacity
	DEPOGAZ PLOIESTI SRL SNGN ROMGAZ SA - FILIALA DE		2026	STcRO	RO	28.00 GWh/d
VIP Romgaz UGS (RO)			2026	RO	STcRO	18.00 GWh/d
Sponsors		General Information		NDP and	d PCI Information	
SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SR	Promoter	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL	NDP	of NDP / Number Release Date	No ((2) no NDP exis	ts in the country)
	Operator	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL	Curre Priori	Website ntly PCI ty Corridor(s)		No NSIE
	Host Country	Romania				
	Status	Planned				
	Website	Project's URL				

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	02/2020	02/2021
FEED	06/2021	06/2022
Permitting	07/2022	12/2023
Supply Contracts		03/2023
FID		03/2021
Construction	01/2024	12/2026
Commissioning	2026	2026
Grant Obtention		
Date		

			Technical Information	(UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor (%)	Comments	Commisioning Year
Ghercesti	Depleted Field	No	Ghercesti underground gas storage in Romania	450	3.0	0.0	70	This is a one phase project. Expected Load Factor to be updated by the Feasibility Study	2027
			Fulfilled Criteria						
Specific Criteria Fulfilled	appropriate connect	ions and diversifi	ification of supply sources cation of supply sources, newable generation and e	supplying o	ounterparts a	and routes,	Sustainability		-

Specific Criteria Fulfilled Comments

**Expected Gas Sourcing** 

### Romania

	Benefits
Main Driver	Others
Main Driver Explanation	The project aims at supplying directly or indirectly at least two Member States and although it meets the competition, market integration, security of supply and sustainability criteria, the project's main contribution is to the European security of supply, given its complementarity to future major pipeline projects in Romania developed by TSO creating on one hand interconnections with the NTS of neighboring Member States (HU and BG) and on the other hand access to the newly discovered gas resources in the Black Sea, which are expected to be monetized soon.
Benefit Description	Its main regional benefits are: (a)SoS will benefit from the increase of withdrawal capacity , (b) increase the flexibility of the storage system, (c) creating additional capacities for energy transition from coal to gas, (d) support for Romania's gas export potential.
	Barriers
Barrier Type	Description
Regulatory	Lack of stability of the methodologies regarding tariffs computation - under current regulations the project would increase the storage tariffs at a level which makes the storage business less attractive and don't respond to the increasing demands of the gas market
Political	Frequent changes in legislation
Market	Reduced market demand from the companies acting on the gas market due to availability of gas imports
Financing	Due to the characteristics of the storage business, financial institutions are not interested to support such project yet.
Regulatory	Low rate of return
Financing	Amortization rates
Market	Lack of market maturity
Market	Lack of market support

No, we have not applied for CEF
No
Mln EUR 0.0
No
Mln EUR 0.0
Yes, for work only
No

## Interconnection of the NTS with the DTS and reverse flow at Isaccea

TRA-F-139		Project		Pipeline inclu	iding CS FID	
Update Date			22/11/2019		Advanced	
Description	The project consists in the fol Phase I: NTS Interconnection with th Repair works to the Dn 800 Phase II: Upgrading and extension of Upgrading the Gas compress Modifications inside the TN Works in the TN Şendreni.	ne international gas t mm Cosmești - One f the gas compresson ssor station Onești;	r station Siliștea;	area of the Isaccea met	ering station;	
PRJ Code - PRJ Name	-					
Sponsors		General Information		NDP and PCI Information		
Transgaz	100%	Promoter Operator Host Country Status Website	SNTGN Transgaz SA SNTGN Transgaz S.A. Romania In Progress <u>Project's URL</u>	Part of NDP NDP Number NDP Release Date NDP Website Currently PCI Priority Corridor(s)	Yes (The National Gas Transmission System Development Plan 2018-2027 7.3 14/12/2018 <u>NDP URI</u> NG	

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Schedule	Start Date	End Date	Third-Party Access
Pre-Feasibility		06/2014	Considered TPA Regime
Feasibility	06/2017	12/2017	Considered Tariff Regime
FEED	01/2018	12/2020	Applied for Exemption
Permitting	12/2017	12/2019	Exemption Granted
Supply Contracts			
FID		04/2018	Exemption in entry direction
Construction	05/2018	12/2020	Exemption in exit direction
Commissioning	2020	2020	
Grant Obtention			
Date			

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Onesti - Cosmesti	Phase I: The length of the route from Onesti to Isacce approx 200 km, but repair/upgrading works are envisaged only for 66.0 km.	ea is 813	66		0
	Phase II: Gas Compressor Station Silistea: the existing gas compressor station is equipped with three compressor units: one with a power of 3.2 MW which will be decommissioned and two with a power of 2.9 MW / compressor group which will be maintained.			9	0
	Total		66	9	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Security of Supply, inter alia through appropriate connections and diversification of Sustainability, inter alia through reducing emissions, supporting intermittent renew gas	1 1 1 P			

Irrent TYNDP : TYN	DP 2020 - Annex A		Page 711 of 773
	Delays since	last TYNDP	
Delay Since Last TYND	OP 12 months		
Delay Explanation	Obtaining the necessary permits, authorizations and a	greements, extension of the duration of the	e tender procedure
	Expected G	as Sourcing	
Black Sea			
	Bene	efits	
Main Driver	Regulation-Interroperability		
Main Driver Explanatio	on		
Benefit Description			
	Barr	iers	
Barrier Type	Description		
Permit Granting	The permitting process is long and complicated		
Financing	Availability of funds and associated conditions		
-	СВСА	Finan	cial Assistance
1	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	Nc
Submissin Date	not	Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taker
Countries Net Cost Be	arar	Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

# New NTS developments for taking over gas from the Black Sea shore

TRA-F-964	Project	Pipeline including CS	FID
Update Date	22/11/2019		Advanced
Description	e project consists in the construction of a new 25 km pipeline from the Bl DN 500 and a design pressure of 55 bar.	lack Sea shore up to the international transit pipel	ine T1 with a diameter
PRJ Code - PRJ Name -			

Sponsors			Gei	neral Information	NDF	P and PCI Information
SNTGN Transgaz SA		100%	Promoter	SNTGN Transgaz SA	Part of NDP	Yes (The National Gas Transmission
	1		Operator	SNTGN Transgaz S.A.		System Development Plan 2018-2027)
			Host Country	Romania		7.6
			Status	Planned	NDP Release Date	14/12/2018
			Website		NDP Website	<u>NDP URL</u>
					Currently PCI	No
					Priority Corridor(s)	NSIE
Schedule	Start Date	End Date			Thirc	I-Party Access Regime
Pre-Feasibility		09/2016			Considered TPA Regin	me <i>Regulated</i>
Feasibility	10/2016	05/2017			Considered Tariff Regi	ime Regulated
FEED	08/2017	01/2018			Applied for Exemption	n <i>No</i>
Permitting	03/2017	12/2017			Exemption Granted	No
Supply Contracts		10/2018				
FID		02/2019			Exemption in entry dir	rection 0.00%
Construction	03/2019	12/2020			Exemption in exit dire	ction 0.00%
Commissioning	2021	2021				
Grant Obtention Date						

Pipelines and Compressor S	tations				
Pipeline Section	Pipeline Comment	Diamete	-	Compressor Power	
/adu-Gradina		(mm) 508	(km) 25	(MW)	Year 2021
	Total	506	25		2021
		l Criteria	25		
			ee Ceevrit	n of Currents, inter alia	the way works
Specific Criteria Fulfilled	Competition, inter alia through diversification of supp appropriate connections and diversification of supply	sources, supplying counterparts and routes	, Sustaina		
	emissions, supporting intermittent renewable generat	tion and enhancing deployment of renewab	le gas		
Specific Criteria Fulfilled Com	nments				
	Expected G	as Sourcing			
Black Sea					
	Ben	efits			
Main Driver Mai	rket Demand				
Main Driver Explanation					
Benefit Description					
	СВСА	Financ	ial Assista	ance	
Decision	No, we have not submitted an investment request yet,	Applied for CEF		(3) No, we have not	applied for C
	and we do not plan to submit it	Grants for studies			Ι
Submissin Date		Grants for studies amount			Mln EUR (
Decision Date		Grants for works			
Vebsite		Grants for works amount			Mln EUR (
Countries Affected		Intention to apply for CEF		No, we do n	ot plan to app
Countries Net Cost Bearer		Other Financial Assistance			I
Additional Comments		Comments			
		General Comments			

# NTS developments in North-East Romania

TRA-F-357	Project	Pipeline including CS	FID
Update Date	18/11/2019		Advanced
Description	The Project "NTS development in the North East area of Romaniei in order to capacities to the Republic of Moldova" consists in the construction of a new ga with the Technological Node Leţcani in the Oneşti – Gherăeşti – Leţcani directi The project implies the construction of new objectives and the construction of Technological Node Oneşti and up to the Technological Node Leţcani and of t	as transmission pipeline to connect the Technolo ion. f two pipeline sections with a total length of 165	ogical Node Onești
PRJ Code - PRJ Name	- //		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Ungheni	SNTGN Transgaz S.A.	2021	RO	MD	42.11 GWh/d

Sponsors		Gener	al Information	N	DP and PCI Information
SNTGN Transgaz S.A.	100%	Promoter		Part of NDP	Yes (The National Gas Transmission
		Operator	SNTGN Transgaz S.A.		System Development Plan 2018 - 2027)
		Host Country	Romania	NDP Number	7.4
		Status	Planned	NDP Release Date	14/12/2018
		Website	Project's URL	NDP Website	<u>NDP URL</u>
				Currently PCI	No
				Priority Corridor(s)	

Current TYNDP : TY	NDP 2020 - Ann	ex A
Schedule	Start Date	End Date
Pre-Feasibility		02/2014
Feasibility	02/2014	01/2018
FEED	01/2016	01/2018
Permitting	01/2016	01/2018
Supply Contracts		
FID		12/2018
Construction		
Commissioning	2021	2021
Grant Obtention		
Date		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Onesti - Gheraesti - Letcani		711	165	18	2021
	Total		165	18	

 Delays since last TYNDP

 Delay Explanation
 Obtaining the necessary endorsements, agreements and permits, extension of the procurement procedure durations.

**Expected Gas Sourcing** 

European gas market, Black Sea

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		Ben	efits	
Main Driver	Others			
Main Driver Explanation	To improve gas	s supply in the area, as well as to ensure transmiss	ion capacities to the Republic of Moldova	
Benefit Description	additional gas	ion of this project a constant gas flow is ensured t quantities, wich may contribute to the developme ply of the Republic of Moldova.		<u> </u>
		Bar	riers	
Barrier Type	Description			
Permit Granting	The permitting	process is long and complicated		
Political	Area with pote	ntial conflicts Requires the conclusion of an Interg	overnmental Agreement	
Financing	Availability of f	unds and associated conditions		
		Intergovernme	ntal Agreements	
Agreement		Agreement Description		Is Signed Agreement Signature Da
Memorandum of Under	standing	5	e Ministry of Economy, Commerce and Business Economy from the Republic of Moldova related ion of the high pressure gas transmissi	Yes 21/05/2015
		CBCA	Financial As	sistance
		have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CE
Decision	and we h	have not yet decided whether we will submit or	Grants for studies	Λ
Submissin Date		not	Grants for studies amount	Mln EUR 0
Decision Date			Grants for works	Λ
Website			Grants for works amount	Mln EUR 0
Countries Affected			Intention to apply for CEF	No, we do not plan to app
Countries Affected	or		Other Financial Assistance	٨
Additional Comments	CI		Comments	
Additional Comments			General Comments	

# NTS developments in North-Vest Romania

TRA-N-598		Project			Pipeline including	g CS N	Non-FID
Update Date		15/08/	/2019			A	dvanced
Description	the aim to create new gas trai the construction of a gas trai the construction of a gas trai the construction of a gas trai	ement of the objectives related to nsmission capacities or to increas ansmission pipeline and of the re ansmission pipeline and of the re ansmission pipeline and of the re ompressor station at Medieşu Au	se the existing ones. The lated equipment in the c lated equipment in the c lated equipment in the c	project lirectior lirectior	consists in: 1 Horia – Medieșu Au 1 Sărmășel – Medieșu	ırit;	Romania, with
PRJ Code - PRJ Name	-						
Capacity Increments Varia	ant For Modelling	<b>a</b>			5 6 6 4	7.0.0.1	
Point		Operator		Year	From Gas System RO	To Gas System	Capacity
VIP Mediesu Aurit - Isacce	ea (RO-UA)	SNTGN Transgaz S.A.		2026	RO	UAe	77.18 GWh/d
Sponsors		General Inform	mation		NDP and	PCI Information	
SNTGN Transgaz SA	100%	Promoter Operator Host Country Status Website	SNTGN Transgaz SA SNTGN Transgaz S.A. Romania Planned	NDP NDP NDP Curre	of NDP	lo ((1) the NDP wa earlier date and th posed for inclusion	he project will be

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Schedule	Start Date	End Date		Third-Party Access Reg
Pre-Feasibility		12/2016	Consid	Considered TPA Regime
Feasibility	07/2019	07/2020	Consid	Considered Tariff Regime
FEED	07/2020	12/2023	Applie	Applied for Exemption
Permitting	07/2020	12/2023	Exemp	Exemption Granted
Supply Contracts				
FID		12/2020	Exemp	Exemption in entry direction
Construction	01/2021	12/2026	Exemp	Exemption in exit direction
Commissioning	2026	2026		
Grant Obtention				
Date				

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Abramut-Mediesu Aurit		700	134		2026
Bors-Abramut		700	28		2025
Horia-Bors		700	112		2022
Huedin-Alesd		500	73	10	2025
Sarmasel-Mediesu Aurit		400	171		2026
	Total		518	10	

**Expected Gas Sourcing** 

Caspian Region, Russia, LNG (), Black Sea, EU Hubs

		Ben	efits	
Main Driver	Regulation SoS			
Main Driver Explanation	Increase in the gas transm the direction Ukraine- Me		he country to ensure gas supply to the nev	w developments and to enable reverse flow in
Benefit Description				
	СВСА		Finar	ncial Assistance
Decision Submissin Date Decision Date Website Countries Affected Countries Net Cost Bear Additional Comments	and we have not ye	ubmitted an investment request yet, it decided whether we will submit or not	Applied for CEF Grants for studies Grants for studies amount Grants for works Grants for works amount Intention to apply for CEF Other Financial Assistance Comments General Comments	(3) No, we have not applied for CE N Min EUR 0 Min EUR 0

		Romania-Serbia I	nterconnection				
TRA-A-1268		Project		Pip	eline including	g CS	Non-FID
Jpdate Date	15/08/2019					No	n-Advanced
Description	the Petrovaselo area, the cou	rcution of a gas transmission pip nty of Timiş. In the connection p ias Metering Station, 18 line valv	ooint a pig receivinf/launc	hing station	will be installed.	On the Romania	n territory the
PRJ Code - PRJ Name	•						
Capacity Increments Varia	nt For Modelling						
	nt For Modelling	Operator		Year Fr	om Gas System	To Gas System	n Capacity
Point	nt For Modelling	Operator SNTGN Transgaz S.A.		Year         Fr           2020	rom Gas System RO	To Gas System RS	n Capacity 46.27 GWh/d
Capacity Increments Varia Point RO/SB IP	nt For Modelling	•					
Point RO/SB IP	nt For Modelling	SNTGN Transgaz S.A.	rmation	2020	RO RS	RS	46.27 GWh/d 46.27 GWh/d
Point RO/SB IP Sponsors	nt For Modelling 100%	SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Info Promoter Operator	SNTGN Tranzgaz SA SNTGN Transgaz S.A.	2020 2020 A Part of NI	RO RS NDP and	RS RO PCI Information Yes (TH SMISSION SYSTEI	46.27 GWh/d 46.27 GWh/d
Point RO/SB IP Sponsors		SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Info Promoter Operator Host Country	SNTGN Tranzgaz SA SNTGN Transgaz S.A. Romania	2020 2020 A Part of NI	RO RS NDP and DP TRAN	RS RO PCI Information Yes (TH SMISSION SYSTEI	46.27 GWh/d 46.27 GWh/d N N N N N DEVELOPMENT
Point RO/SB IP Sponsors		SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Info Promoter Operator Host Country Status	SNTGN Tranzgaz SA SNTGN Transgaz S.A.	2020 2020 A Part of NI	RO RS NDP and DP <i>TRAN</i>	RS RO PCI Information Yes (TH SMISSION SYSTEI	46.27 GWh/d 46.27 GWh/d N NE NATIONAL GAS M DEVELOPMENT PLAN 2018-2027
Point RO/SB IP Sponsors		SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Info Promoter Operator Host Country	SNTGN Tranzgaz SA SNTGN Transgaz S.A. Romania	2020 2020 A Part of NI	RO RS NDP and DP <i>TRAN</i> . nber vase Date	RS RO I PCI Information Yes (TH SMISSION SYSTEI	46.27 GWh/d 46.27 GWh/d N NE NATIONAL GAS M DEVELOPMENT PLAN 2018-2027 7.1
Point		SNTGN Transgaz S.A. SNTGN Transgaz S.A. General Info Promoter Operator Host Country Status	SNTGN Tranzgaz SA SNTGN Transgaz S.A. Romania	2020 2020 A Part of NI NDP Num NDP Rele	RO RS NDP and DP <i>TRAN</i> . nber ease Date posite	RS RO I PCI Information Yes (TH SMISSION SYSTEI	46.27 GWh/d 46.27 GWh/d 10 12 NATIONAL GAS 14/12/2010 14/12/2010

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Schedule	Start Date	End Date
Pre-Feasibility		02/2018
Feasibility	02/2018	11/2018
FEED	03/2018	01/2019
Permitting	03/2018	10/2019
Supply Contracts		
FID		
Construction		
Commissioning	2020	2020
Grant Obtention		
Date		

Pipelines and Compr	ressor Stations						
			Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
			Romanian section of the interconnection pipeline	600	85		2020
		Total			85		
_			D av affe				
			Benefits				
Main Driver	Regulation SoS						
Main Driver Explanati	ion						
Benefit Description							
			Barriers				
Parrier Turpa	Description					10	

Barrier Type	Description	
Permit Granting	The permitting process is long and complicated	
Financing	Availability of funds and associated conditions	

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CBCA	Finan	cial Assistance
No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
	Grants for studies	No
not	Grants for studies amount	Mln EUR 0.0
	Grants for works	No
	Grants for works amount	Mln EUR 0.0
	Intention to apply for CEF	
		No
		No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not Crants for studies amount Grants for works

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# Sarmasel undeground gas storage in Romania

UGS-N-371	Project	Storage Facility	Non-FID					
Update Date	28/08/2019		Non-Advanced					
	Sarmasel Underground Storage in Romania consists in the increase of working 0.65 Bcm/cycle, an enhanced withdrawal capacity of up to12 million cm/day and the second structure of the second structure							
	The required investment consists of: - construction of one more compressor module,							
	<ul> <li>refurbishment of surface infrastructure for all injection-withdrawal wells;</li> </ul>							
Description	<ul> <li>recompletion of all wells and installation of safety devices for each of them;</li> <li>drilling new additional wells;</li> <li>increasing the cushion gas.</li> <li>The geological suitability is backed up by existing reservoir studies.</li> </ul>							
	The rationale of the project is to: (a) decongest existing storage capacities in So (b) increase the flexibility of the storage system, contribute to the sustainability Russian gas etc.	the second s						
PRJ Code - PRJ Name	-							

Capacity Increments Variant For Modelling								
Point	Operator	Year	From Gas System	To Gas System	Capacity			
	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL		STcRO	RO	45.00 GWh/d			
VIP Romgaz UGS (RO)	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL	2024	RO	STcRO	34.00 GWh/d			

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Current IYNDP : IYI	NDP 2020 - Annex	( A				Page 725 of 773
Sponsors				General Information	NDP	and PCI Information
SNGN ROMGAZ SA GAZE NATURALE DE		100%	Promoter	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL	Part of NDP NDP Number NDP Release Date	No ((2) no NDP exists in the country)
			Operator	SNGN ROMGAZ SA - FILIALA DE INMAGAZINARE GAZE NATURALE DEPOGAZ PLOIESTI SRL	NDP Website Currently PCI Priority Corridor(s)	Yes (6.20.6 (2020))
			Host Country	Romania		
			Status	Planned		
			Website	Project's URL		
Schedule	Start Date	End Date			Third-	Party Access Regime
Pre-Feasibility		06/2016			Considered TPA Regim	e Regulated
Feasibility	03/2019	03/2020			Considered Tariff Regir	ne <i>Regulated</i>
FEED	06/2020	04/2021			Applied for Exemption	No
Permitting	04/2021	10/2021			Exemption Granted	No
Supply Contracts		12/2021				
FID		06/2020			Exemption in entry dire	ection 0.00%
Construction	01/2022	10/2024			Exemption in exit direct	tion 0.00%
Commissioning	2024	2024				

Grant Obtention Date 2024 2024 01/12/2021 01/12/2021

			Technical Information (	UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor (%)	Comments	Commisioning Year
UGS SARMASEL	Depleted Field	No	Sarmasel underground gas storage in Romania	650	3.2	4.0	70	This is a one phase project. Expected Load Factor to be updated by the Feasibility Study	2024
			Fulfilled Criteria						
	Competition, inter ali	a through divers	sification of supply sources	. supplying	i counterpart	s and route	es. Security of	Supply, inter alia	a through
Specific Criteria Fulfilled	appropriate connecti	ons and diversifi	ication of supply sources, s	supplying c	ounterparts a	and routes,	Sustainability	1 N N N	
Specific Criteria Fulfilled Comment	emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas TYNDP views RO as gas source during 2020-2030, but afterwards there is major impact on RO: (1) Disruption Rate doubling from 10% to 20% in case of UA import route disruption, and (2) N-1 which cannot be fulfilled anymore, dropping to 83% for Low Infrastructure and to 85% for Adv. Infra. CBA assessment shows cross-border impact of the Sarmasel storage on SE Europe in terms of security of supply, in case of UA roud disruption for all neighbouring countries: BG, HU, RS. CBA results show that irrespective of the geographical location of the storage or the distance to transit lines or the interconnection systems between countries, there is an impact on neighbouring countries through the transmission system in case of UA disruption. There is an impact of the project between 2and 4 % on DR for all scenarios and type of infrastructure. On N-1 the project impact varies between 3-4 % in 2030. It provides stability and flexibility to the entire transmission system, a shown in RO TSO NTS Dev PI.							nd to 85% for ase of UA route rage or the h the rpe of	
			Delays since last TYN	DP					
Delay Since Last TYNDP	FID has changed from	n Q1 2018 to 01,	/01/2019						
Delay Explanation									
			Expected Gas Sourci	ng					
Romania								_	

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	Benefits				
Main Driver	Others				
Main Driver Explanation	<ul> <li>The project aims at supplying directly or indirectly at least two Member States and although it meets the competition, market integration, security of supply and sustainability criteria, the project's main contribution is to the European security of supply, given its complementarity to future major pipeline projects in Romania developed by SNTGN Transgaz S.A creating on one hand interconnections with the NTS of neighboring Member States (HU and BG) and on the other hand access to the newly discovered gas resources in the Black Sea, which are expected to be monetized soon.</li> <li>Its main regional benefits are: (a) decongestion of existing storage capacities in South Romania which may become available for neighboring countries, (b) increase the flexibility of the storage system, (c) contribution to the sustainability and flexibility of the transmission system especially of high pressure pipelines, (d) reduction of dependency on Russian gas, and (e) support for Romania's gas export potential.</li> </ul>				
Benefit Description					
	Barriers				
Barrier Type	Description				
Regulatory	- lack of stability of the methodologies regarding tariffs computation - under current regulation the project could increase the storage tariffs at a level which make the storage business less attractive. The methodology does not respond to the increasing demands of the gas market for multiple types of tariffs				
Political	Frequent changes in legislation				
Market	Reduced market demand from the companies acting on the gas market due to availability of gas imports				
Financing	Due to the characteristics of the storage business, financial institutions are not interested to support such project yet.				
Market	Lack of market maturity				
Financing	Amortization rates				
Regulatory	Low rate of return				
Market	Lack of market support				

	СВСА		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 0.6
Website		Grants for works	No
Countries Affected		Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for work only
Additional Comments		Other Financial Assistance	No
		Comments	We have applied for CEF grant for studies but it was not approved
		General Comments	We have applied for CEF grant for studies but it was not approved,
			approved,

# Upgrading GMS Isaccea 1 and GMS Negru Voda 1

TRA-F-1277	Project Pipeline i	including CS FID
Update Date	18/11/2019	Advanced
Description	The project "Upgrading GMS Isaccea 1 and GMS Negru Vodă 1" consists in the construction of two new g locations of the Metering Stations	as metering stations on the existing
PRJ Code - PRJ Name	-	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Isaccea (RO) - Orlovka (UA) I	SNTGN Transgaz S.A.	2021	RO/TBP	UAe	28.92 GWh/d

Sponsors		G	eneral Information	NDP and PCI Information		
SNTGN Transgaz SA	100%	Promoter	SNTGN Transgaz SA	Part of NDP	Yes (The National Gas Transmission	
		Operator	SNTGN Transgaz S.A.		System development Plan 2018 - 2027)	
		Host Country	Romania	NDP Number	7.8	
		Status		NDP Release Date	14/12/2018	
		Website		NDP Website	<u>NDP URL</u>	
				Currently PCI	No	
				Priority Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2018	08/2018
FEED	01/2018	12/2019
Permitting	01/2018	12/2019
Supply Contracts		
FID		12/2018
Construction	12/2018	12/2020
Commissioning	2021	2021
Grant Obtention		
Date		

Pipelines and Compressor S	tations				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
A	The project refers only to the upgrading of the two Gas Metering Stations				2021
	Total				
	Delays since last TYNDP				
Delay Since Last TYNDP					
Delay Explanation	Obtaining the necessary permits, agreements and approvals, extension of the duration	of the tend	er procec	lures	
	Expected Gas Sourcing				
Caspian Region, Russia					

**Regulation SoS** 

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Benefits

Main Driver

Main Driver Explanation

Benefit Description

	CBCA	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we do not plan to submit it	Grants for studies	No
Submissin Date		Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No decision yet taken
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

## Project GO4LNG LNG terminal Gothenburg

LNG-A-32	Project	LNG Terminal	Non-FID
Update Date	22/11/2019		Advanced
Description	A small-scale LNG terminal, including connection to the transmission grid, place bunkering and regasification.	ced in the Gothenburg harbour, with flexible se	nd out by rail, truck,
PRJ Code - PRJ Name	-		

Capacity Increments Variant For I	Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
Gothenburg LNG	Swedegas AB	2022	LNG_Tk_SE	SE	26.00 GWh/d

Sponsors				General Information	NDP	and PCI Information
Swedegas AB		100%	Promoter	Swedegas AB	Part of NDP	No ((2) no NDP exists in the country)
	- Y'		Operator	Swedegas AB	NDP Number	
			Host Country	Sweden	NDP Release Date	
			Status	Planned	NDP Website	
			Website	Project's URL	Currently PCI	No
					Priority Corridor(s)	BEMIP
Schedule	Start Date	End Date			Third	-Party Access Regime
Pre-Feasibility		01/2012			Considered TPA Regim	ne Regulated
Feasibility	01/2012	06/2012			Considered Tariff Regi	me Regulated
FEED	01/2020	05/2020			Applied for Exemption	No No
Permitting	10/2013	05/2014			Exemption Granted	No
Supply Contracts		05/2020				
FID		06/2020			Exemption in entry dir	ection 0.00%
Construction	06/2020	04/2023			Exemption in exit direc	ction 0.00%
Commissioning	2022	2022				
Grant Obtention Date						

			Technical Info	rmation (LN	IG)				
egasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Fact (%)
Sothenburg LNG termind	ıl Yes	Development	9,999.0	75,000	2.40	25,000	-	2023	100
			Fulfilled	l Criteria					
pecific Criteria Fulfilled	lifting of Sup inter a	petition, inter alia throug the isolation of at least oply, inter alia through a alia through reducing en	one Member State and ppropriate connections	reducing en and diversif	ergy infrastruc ication of supp	ture bottlenecks, bly sources, supply	nteroperability	v and system flexibil rts and routes, Susta	ity, Securi
pecific Criteria Fulfilled	Comments								
			Delays since	e last TYNDF	)				
elay Since Last TYNDP									
Pelay Explanation	Delaye	ed because of market de	evelopment is slower that	an expected.	Discussions o	n-going with key	potential playe	rs.	
			Expected G	as Sourcing					
NG (EU,LNG,NO)									
			Ben	efits					
lain Driver	Market Demand								
lain Driver Explanation									
enefit Description									
			Bar	riers					
	Description								
arrier Type		aturity							

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date	17/09/2015	Grants for studies amount	Mln EUR 1.8
Website	<u>CBCA URL</u>	Grants for works	No
Countries Affected	Denmark, Sweden	Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer	Sweden	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	Yes
		Comments	TEN-T subsidy. Though Swedegas only spent 100kEUR of the total subsidy (due to delay in the project and loss of subsidy)
		General Comments	

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Construction

Date

Commissioning

Grant Obtention

1

10/2024

2025

10/2025

2025

## CS Ajdovščina, 1st phase of upgrade

TRA-N-92	Project	Pipeline including CS	Non-FID
Update Date	22/11/2019		Non-Advanced
Description	Adjustment to the operating parameters of the transmission system of the Italia	an TSO and increasing the transmission capac	city.
PRJ Code - PRJ Name	-		

Sponsors				General Information	NDP	and PCI Information
			Promoter	Plinovodi d.o.o.	Part of NDP	Yes (TYNDP for the period 2019-2028)
Plinovodi		100%	Operator	Plinovodi d.o.o.	NDP Number	C1
Paldiski LNG Term	inal		Host Country	Slovenia	NDP Release Date	26/11/2018
Balti Gaas LLC		100%	Status	Planned	NDP Website	NDP URL
			Website	Project's URL	Currently PCI	Yes (6.23 (2020))
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third-	Party Access Regime
Pre-Feasibility					Considered TPA Regime	e Regulated
Feasibility	11/2014	02/2015			Considered Tariff Regin	ne Regulated
FEED	09/2021	12/2023			Applied for Exemption	No
Permitting	10/2022	10/2024			Exemption Granted	No
	10/2022	10/2024 10/2025			Exemption Granted	No

Exemption in exit direction 0.00%

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Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Ajdovščina, 1st phase of upgrade	Power up to 5 MW.			5	0
	Total			5	
	Fulfilled Criteria				
	Supply, inter alia through appropriate connections and d ty, inter alia through reducing emissions, supporting inte			•	
	Expected Gas Sourcing				
Algeria, Caspian Region, Russia, LNG (HR,IT), UG	S in Hungary				
	Benefits				

Main Driver	Market Demand
Main Driver Explanation	
Benefit Description	

	Intergovernmental Agreements		
Agreement	Agreement Description	Is Signed Agr	eement Signature Date
Agreement between PMs of Estonia and Finland	Agreement in regards to the gas infrastructure in the countries.	Yes	17/11/2014
Memorandum of Understanding	MoU between Estonia and Finland and LNG project promoters	Yes	28/02/2014

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	CBCA	Financia	al Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturin Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	No
Countries Net Cost Bearer		Comments	100
Additional Comments			
		General Comments	

## CS Kidričevo, 2nd phase of upgrade

TRA-N-94	Project	Pipeline including CS	Non-FID
Update Date	15/08/2019		Advanced
Description	Upgrade of CS for higher operational pressure in the existing M1/1 and M2/1 bidirectional gas route Austria - Slovenia - Croatia. The project is a part of the PCI 6.26 Cluster Croatia - Slovenia - Austria at Roge		on in the frame of the
PRJ Code - PRJ Name	-		

Sponsors			Genera	al Information	NDP a	and PCI Information
Plinovodi		100%	Promoter	Plinovodi d.o.o.	Part of NDP	Yes (TYNDP for the period 2019-2028)
1	1		Operator	Plinovodi d.o.o.	NDP Number	С5
			Host Country	Slovenia	NDP Release Date	26/11/2018
			Status	Planned	NDP Website	<u>NDP URL</u>
			Website	Project's URL	Currently PCI	Yes (6.26.1.2 (2020))
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third-F	Party Access Regime
Pre-Feasibility		01/2015			Considered TPA Regime	e Regulated
Feasibility	04/2015	05/2015			Considered Tariff Regim	ne Regulated
FEED	07/2020	07/2022			Applied for Exemption	No
Permitting	07/2021	12/2022			Exemption Granted	No
Supply Contracts		12/2023				
FID		09/2021			Exemption in entry direc	ction 0.00%
Construction	07/2022	12/2023			Exemption in exit directi	ion 0.00%
Commissioning	2023	2023				
Grant Obtention Date						

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Kidričevo, 2nd phase of upgrad	e Up to three compressor units with total power of up to 30 MW.			30	0
	Total			30	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Market Integration, inter alia through lifting the isolation of at least one Member State interoperability and system flexibility, Security of Supply, inter alia through appropriate supplying counterparts and routes				
	Upgrade of CS for higher operational pressure in the existing M1/1 and M2/1 pipelines	s, higher flow	v and bid	lirectional operation	The project
specific Criteria Fulfilled Comments	is aims to assure additional necessary compressor power for the PCI 6.26 Cluster Croatia contribute to the facilitation of market integration and provide infrastructure allowing t	- Slovenia -	Austria a	t Rogatec. The projec	ct will
Specific Criteria Fulfilled Comments		- Slovenia -	Austria a	t Rogatec. The projec	ct will
	contribute to the facilitation of market integration and provide infrastructure allowing t	- Slovenia -	Austria a	t Rogatec. The projec	ct will
	contribute to the facilitation of market integration and provide infrastructure allowing t	- Slovenia -	Austria a	t Rogatec. The projec	ct will
Caspian Region, Russia, LNG (HR)	contribute to the facilitation of market integration and provide infrastructure allowing t Expected Gas Sourcing Benefits	- Slovenia -	Austria a	t Rogatec. The projec	ct will
Caspian Region, Russia, LNG (HR) Main Driver Market De	contribute to the facilitation of market integration and provide infrastructure allowing t Expected Gas Sourcing Benefits	- Slovenia -	Austria a	t Rogatec. The projec	ct will
Caspian Region, Russia, LNG (HR) Main Driver Market De	contribute to the facilitation of market integration and provide infrastructure allowing t Expected Gas Sourcing Benefits emand	- Slovenia -	Austria a	t Rogatec. The projec	ct will
Caspian Region, Russia, LNG (HR) Main Driver Market De Main Driver Explanation Also esser	contribute to the facilitation of market integration and provide infrastructure allowing t Expected Gas Sourcing Benefits emand	- Slovenia -	Austria a	t Rogatec. The projec	ct will
Caspian Region, Russia, LNG (HR) Main Driver Market De Main Driver Explanation Also esser	contribute to the facilitation of market integration and provide infrastructure allowing t Expected Gas Sourcing Benefits emand	- Slovenia -	Austria a	t Rogatec. The projec	ct will

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	CBCA	Financia	l Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	and we have not yet decided whether we will submit or	Grants for studies	No
Culturing Data	not	Grants for studies amount	Mln EUR 0.0
Submissin Date		Grants for works	No
Decision Date		Grants for works amount	Mln EUR 0.0
Website		Intention to apply for CEF	No decision yet taken
Countries Affected		Other Financial Assistance	
Countries Net Cost Beare	r		No
Additional Comments		Comments	
		General Comments	

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# M3 pipeline reconstruction from CS Ajdovščina to Šempeter/Gorizia

TRA-N-108		Project			Pipeline including	g CS N	Ion-FID
Update Date			26/11/2019			Non	-Advanced
Description	Interconnector with the Italian	n TSO. Adjustment to op	erating parameters of the transm	nission s	system of the Italian T	SO.	
PRJ Code - PRJ Name	-						
Capacity Increments Variant	For Modelling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
		Plinovodi d.o.o		2025	IT	SI	0.00 GWh/d
Gorizia (IT) /Šempeter (SI)					Comment: Total cap	pacity is 49 GWh/d	
		Plinovodi d.o.o		2025	SI	IT	0.00 GWh/d
					Comment: Total cap	pacity is 49 GWh/d	
Sponsors		Gene	ral Information		NDP and	PCI Information	
Plinovodi	100%	Promoter	Plinovodi d.o.o	. Part o	of NDP Yes	s (TYNDP for the pe	eriod 2019-2028)
		Operator	Plinovodi d.o.o	NDP	Number		C2
		Host Country	Slovenic	NDP	Release Date		26/11/2018
		Status	Planned	NDP	Website		NDP URL
		Website	<u>Project's URI</u>	<u>Curre</u>	ently PCI		Yes (6.23 (2020))
				Prior	ity Corridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	11/2014	02/2015
FEED	09/2021	12/2023
Permitting	10/2022	10/2024
Supply Contracts		10/2025
FID		09/2020
Construction	10/2024	10/2025
Commissioning	2025	2025
Grant Obtention		
Date		

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissionin Year
M3 pipeline reconstruction frc Šempeter/Gorizia	om CS Ajdovščina to	500	12		0
	Total		12		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Fulfilled Criteria Security of Supply, inter alia through appropriate connections and diversif Sustainability, inter alia through reducing emissions, supporting intermitte gas				
Specific Criteria Fulfilled Specific Criteria Fulfilled Comr	Security of Supply, inter alia through appropriate connections and diversif Sustainability, inter alia through reducing emissions, supporting intermitte gas				
	Security of Supply, inter alia through appropriate connections and diversif Sustainability, inter alia through reducing emissions, supporting intermitte gas				

Algeria, Caspian Region, Russia, LNG (HR,IT), UGS in Hungary

	Be	nefits	
Main Driver	Others		
Main Driver Explanat	ion Adjustment of IP boundary conditions (pressure).		
Benefit Description			

Decision     and we have not yet decided whether we will submit or not     Grants for studies     MIn EUR O       Submissin Date     Grants for studies amount     MIn EUR O       Decision Date     Grants for works     MIn EUR O       Website     Grants for works amount     MIn EUR O       Countries Affected     Other Financial Assistance     Mo decision yet take		CBCA	Fin	ancial Assistance
Website     Intention to apply for CEF     No decision yet take       Countries Affected     Other Financial Assistance     No	Submissin Date	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF Grants for studies Grants for studies amount Grants for works	(3) No, we have not applied for CEF No Mln EUR 0.0 No Mln EUR 0.0
Additional Comments General Comments	Countries Affected Countries Net Cost Bearer		Intention to apply for CEF Other Financial Assistance Comments	No decision yet taken No

		M3/1 Šempete	er - Vodice				
TRA-N-299		Project			Pipeline including	J CS N	Ion-FID
Update Date		26/11/	/2019			A	dvanced
		n TSO, cross-border transmission. on corridor Hungary-Slovenia-Ita					
PRJ Code - PRJ Name	-						
Capacity Increments Variant F	or Modelling				E 0 0 4	<b>T C C i</b>	<b>c</b>
Point		Operator		Year	From Gas System	To Gas System	Capacity
		Plinovodi d.o.o.		2026	II Comment: Total capa	SI	49.00 GWh/c
Gorizia (IT) /Šempeter (SI)		Plinovodi d.o.o.		2026	SI	IT	51.60 GWh/c
					Comment: Total capa		
Sponsors		General Infor				PCI Information	
Plinovodi	100%	Promoter	Plinovodi d.o.o.			(TYNDP for the pe	
		Operator	Plinovodi d.o.o.			C7, C	8, C9 (3 section
		Host Country			Release Date		26/11/201
		Status	Planned				<u>NDP UR</u>
		Website	<u>Project's URL</u>		ty Corridor(s)		N NSI
				PHON	ty contaor(s)		INSII

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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	11/2014	02/2015
FEED	03/2021	03/2024
Permitting	03/2022	03/2024
Supply Contracts		01/2026
FID		09/2020
Construction	03/2024	12/2026
Commissioning	2026	2026
Grant Obtention		
Date		

Pipelines and Compressor Stati		Diameter	l enath	Compressor Power	Comissioning
Pipeline Section	Pipeline Comment	(mm)	(km)	(MW)	Year
M3/1a Šempeter - Ajdovščina		800	30		2026
M3/1b Ajdovščina - Kalce		800	24		2026
M3/1c Kalce - Vodice		800	47		2026
	Total		101		
	Fulfilled Criteria				
Specific Criteria Fulfilled	Security of Supply, inter alia through appropriate connections and diversif Sustainability, inter alia through reducing emissions, supporting intermitte			0	
Specific Criteria Fulfilled Specific Criteria Fulfilled Comme	Security of Supply, inter alia through appropriate connections and diversif Sustainability, inter alia through reducing emissions, supporting intermitte gas			0	
	Security of Supply, inter alia through appropriate connections and diversif Sustainability, inter alia through reducing emissions, supporting intermitte gas			0	
	Security of Supply, inter alia through appropriate connections and diversif Sustainability, inter alia through reducing emissions, supporting intermitte gas			0	
	Security of Supply, inter alia through appropriate connections and diversit Sustainability, inter alia through reducing emissions, supporting intermitte gas ents Expected Gas Sourcing			0	

Main Driver Market Demand

Main Driver Explanation

Benefit Description

No, we have not submitted an investment req and we have not yet decided whether we will sSubmissin DateDecision Date	<i>Ibmit or</i> <i>not</i> Grants for studies Grants for studies amount	(3) No, we have not applied for CEF No Mln EUR 0.0
Submissin Date	not Grants for studies amount	
	Grants for studies amount	Mln EUR 0.0
Jecision Date	Grants for works	No
	Grants for works amount	Mln EUR 0.0
Website	Intention to apply for CEF	No decision yet taken
Countries Affected	Other Financial Assistance	No
Countries Net Cost Bearer	Comments	
Additional Comments	General Comments	

Benefits

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# Capacity increase at IP Lanžhot entry

TRA-F-902		Project		Pipe	eline including	g CS	FID
Update Date			18/11/2019		~	A	dvanced
Description	incremental capacity will be se Republic. This solution represe mitigating impact on environ	ecured by construction of ents prerequisite for marke ment via utilization of exist transit capacity for deliver	Entry - Eustream) is the upgrad a new compressor station in the et integration in the Central Eur ting transmission corridor.Proje y of gas for the region of CEE/S ne.	e territory of opean regic ct is also de	f western Slovaki on and requested veloped in the co	a near the border flexibility for tran ontext of Eastring	with the Czech smission project, the aim
PRJ Code - PRJ Name	-						
Capacity Increments Varia	nt For Modelling	Operator		Year Fro	om Gas System	To Gas System	Capacity
Lanžhot		eustream, a.s.		2019	CZ	SK	884.00 GWh/o
Lanzhot		custicam, a.s.		2015	CL	510	004.00 000170
Sponsors		Genera	l Information		NDP and	PCI Information	
eustream, a.s.	100%	Promoter	eustream,a.s. (a joint-stock company)	Part of ND	OP Yes	(National Develop	ment Plan 2018 2027
		Operator	eustream, a.s.	NDP Num	ber		4.1.1.3. Lanžho
		Host Country	Slovakia	NDP Relea	ase Date		30/11/201
		Status	Planned	NDP Web	site		<u>NDP UR</u>
		Website	Project's URL	Currently	PCI		N
				Priority Co	orridor(s)		

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Schedule	Start Date	End Date
Pre-Feasibility		06/2015
Feasibility	06/2015	10/2015
FEED	09/2015	07/2017
Permitting	08/2017	02/2018
Supply Contracts		01/2017
FID		12/2017
Construction	02/2018	11/2019
Commissioning	2019	2019
Grant Obtention		
Date		

Pipeline Comment	Diameter Length Compressor Power Comissioning (mm) (km) (MW) Year
	46 2019
Total	46
Delays since last TYNDP	
Expected Gas Sourcing	
	Total Delays since last TYNDP

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	Ben	efits	
Main Driver	Market Demand		
Main Driver Explanation	Capacity was auctioned via the PRISMA platform in the yearly auc	tion in March 2017 .	
Benefit Description	Effort to utilize existing gas infrastructure at maximum mitigating Czech Republic, Slovakia, Austria, Italy and other countries in the in the context of Eastring project, the aim is to provide sufficient to countries, as well as ensuring security of supplies to Ukraine as we	region supporting efforts of CZ and AT ma uture transit capacity for delivery of gas fo	rket integration (TRU option project). Project is r the region of CEE/SEE region, namely Balkan
	Barr	iers	
Barrier Type	Description		
Regulatory	Capacity quotas		
Regulatory	Low rate of return		
	СВСА	Finan	cial Assistance
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CE
Decision	and we do not plan to submit it	Grants for studies	( <i>b)</i> , , , , , , , , , , , , , , , , , , ,
Submissin Date		Grants for studies amount	Mln EUR 0.
Decision Date		Grants for works	N
Website		Grants for works amount	Mln EUR 0.
Countries Affected		Intention to apply for CEF	No, we do not plan to appl
Countries Net Cost Bear	er	Other Financial Assistance	N N
	Current technical capacity at the Czech side is 913,7	Comments	
	GWh/d. Incremental capacity on the Czech side based on Capacity increase at IP Lanžhot entry realization will be 333 GWh/d	General Comments	
	Current technical capacity at the Slovak side is 697		
Additional Comments	GWh/d. Incremental capacity on the Slovak side based		
	on Capacity increase at IP Lanžhot entry realization will be 884 GWh/d		
	It means that incremental capacity which should be taken into account for modelling is 549,7 GWh/d.		

	G2F - Gas to Future		
ETR-N-315	Project	Energy Transition Related Project	Non-FID
Update Date	15/08/2019		Advanced
Description	Project Gas to Future (G2F) aims to store renewable energy in form of the storages. The unique structure as well as the location of the UGS with all t countries. The project is split in 2 phases. In the first phase, the H2 will be whole NAFTA capacity to the volume of 2% of hydrogen and during the se capacity will allow to install and use more renewable energy without any r supply. The project counts to install the electrolysis units to transform electrolysis units to transform electrolysis units to reduce CO2 emission	the interconnection allows to store and distribute H2 stored with natural gas continuously increasing the a econd phase the hydrogen content will increase to 10 negative impact to the electrical grid as well as will pr ctricity to gas (H2). For storing of the H2 will be used	for neighbouring amount of H2 stored in 0% of H2 vol. That rovide energy safety of
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	NAFTA a.s.	2025	STcSKm	IB-STcSKmm	1.32 GWh/d
	Comment	hydrogen to be withdrawr	n from the P2G facility	& existing storage	
UGS Lab (SK) (Nafta)	NAFTA a.s.	2025	IB-STcSKmm	STcSKm	1.32 GWh/d
	Comme	ent: hydrogen to be injected	from the P2G facility	to existing storage	

Sponsors			General Information
NAFTA a.s.	100%	Promoter	NAFTA a.s. (joint stock company)
		Operator	NAFTA a.s.
		Host Country	Slovakia
		Status	Planned
		Website	

Start Date	End Date
	12/2020
04/2021	04/2022
01/2023	12/2023
05/2020	03/2024
	04/2024
05/2024	06/2025
2025	2025
	04/2021 01/2023 05/2020 05/2024

nical Information (ETR)		
eters	Technical Information Comment	Commissio ning Year
aily use and therefore mostly we would like to ure, so the investment costs should be lower of the new technology. The injected hydrogen to d be at the rate of 1.32 GWh/day. In order to inject it in system at 2% vol. of hydrogen in	none	2025
gen volume of 10% in whole NAFTAs storage ydrogen in this phase should be according to .6 GWh/day. Once again, project will benefit by of existing NAFTAs storage facilities. Expected	none	2035
	eters project we would like to use our existing gas aily use and therefore mostly we would like to ure, so the investment costs should be lower of the new technology. The injected hydrogen to d be at the rate of 1.32 GWh/day. In order to inject it in system at 2% vol. of hydrogen in expected to install P2G technology with power will continue with Hydrogen production in gen volume of 10% in whole NAFTAs storage hydrogen in this phase should be according to 6 GWh/day. Once again, project will benefit by of existing NAFTAs storage facilities. Expected gy should be at level of 332 MW.	project we would like to use our existing gas aily use and therefore mostly we would like to ure, so the investment costs should be lower of the new technology. The injected hydrogen to d be at the rate of 1.32 GWh/day. In order to inject it in system at 2% vol. of hydrogen in expected to install P2G technology with power t will continue with Hydrogen production in gen volume of 10% in whole NAFTAs storage bydrogen in this phase should be according to 6.6 GWh/day. Once again, project will benefit by of existing NAFTAs storage facilities. Expected

## Measures for the reduction of methane emissions

ETR-N-920	Project	Energy Transition Related Project	Non-FID
Update Date	11/06/2020		Advanced
Description	Reduction of methane emissions is a project aimed at the reduction of methat transmission system, in order to mitigate the impact on climate change.	ane emissions that are created within the Slovak r	natural gas
PRJ Code - PRJ Name	-		

Sponsors			Ger	neral Information
eustream, a.s.		100%	Promoter	eustream, a.s.
	1		Operator	eustream, a.s.
			Host Country	Slovakia
			Status	Planned
			Website	
Schedule	Start Date	End Date		
Pre-Feasibility				
Feasibility				
FEED	01/2022	06/2022		
Permitting	07/2022	03/2023		
Supply Contracts		06/2023		
FID		12/2022		
Construction	07/2023	12/2024		
Commissioning	2024	2024		
Grant Obtention				
Date				

	Technical Information (ETR)		
Section/Phase Name	Main Technical Parameters	Technical Information Comment	Commissic ning Year
Basic Variant	Reduction of methane emissions (other pollutants)		2024

Trans-Caspian								
TRA-A-339		Project			Pipeline including CS		Non-FID	
Update Date			24/10/2019			Non	-Advanced	
Description	economically justified scenar transport up to 15 bcm/y to 30 bcm/y and feed the Whit currently doing the Pre-FEED	rios of TCP's step by s wards Turkey (TANAP e Stream pipeline from O study and evaluating	West pipeline in Turkmenistan. It step expansion are possible. The fi ) starting from 2022. For the seco m Georgia to Constanta, Romania g an option of 2 phased developm propression station and terminal is	rst stage a nd stage (2 . From Con nent, each	ssociated with one pip 2023), the capacity is in Istanta gas will flow to for 15 bcm/y, with two	beline string is intended to be inconversed by be been been been been been been bee	ended to reased to up to en. We are	
PRJ Code - PRJ Name	-							
Capacity Increments Va	ariant For Modelling							
Point		Operator		Year 2022	From Gas System TM	To Gas System AZ/SCP	Capacity 505.00 GWh/d	
		Comment the syste are Turkmer Compar Brexit). If o	Caspian Pipeline Company OU The data regarding capacity and m provides only the TCP/SCP as "p de facto the exit data of TCP 1st s nistan. The capacity is 505 GWh/d. my Limited respectively OU since the one selects this operator (W-Stream possible to file data in box 082 and Operator since allowing	commission point", only tring. The e (N.B. Oper e seat of th n Caspain p d box 83. Th	ning year belong to TC the entry data can be entry point of TCP 1st s ator will be W-Stream be company had to be bipeline Company Limu herefore "White Stream	CP 1st string. Since indicated - which string is located in Caspian pipeline moved because of ited) in box 081 it n" was selected as	-	
TCP/SCP		W-Stream	Caspian Pipeline Company OU	2023	ТМ	AZ/SCP	505.00 GWh/c	
		Comment the syste are Turkmer Compar Brexit). If o	The data regarding capacity and m provides only the TCP/SCP as "p de facto the exit data of TCP 1st s nistan. The capacity is 505 GWh/d. ny Limited respectively OU since th one selects this operator (W-Stream possible to file data in box 082 and	point", only tring. The e (N.B. Oper e seat of th n Caspain p	the entry data can be entry point of TCP 1st ator will be W-Stream be company had to be pipeline Company Limi	indicated - which string is located in Caspian pipeline moved because of ited) in box 081 it		

Operator since allowing to file in the required data into the foreseen boxes.

		ilex / t					ruge i so or i i s
Sponsors				Ger	neral Information	NDP a	nd PCI Information
W-STREAM PIPELIN	NE COMPANY LIN	IITED	90%	Promoter	W-Stream Caspian Pipeline Company OU	Part of NDP	No ((2) no NDP exists in the country)
Georgian Oil and G	ias Corporation (C	GOGC)	10%	Operator Host Country Status Website	W-Stream Caspian Pipeline Company OU Turkmenistan Planned <u>Project's URL</u>	NDP Number NDP Release Date NDP Website Currently PCI Priority Corridor(s)	Yes (7.1.1 (2020))
Schedule	Start Date	End Date				Third-P	Party Access Regime
Pre-Feasibility		01/2013				Considered TPA Regime	Regulated
easibility	05/2018	04/2020				Considered Tariff Regime	e Negotiated
EED	04/2020	12/2020				Applied for Exemption	No
Permitting	08/2019	12/2020				Exemption Granted	Not Relevant
Supply Contracts		06/2021					
ID		01/2021				Exemption in entry direc	tion 0.00%
Construction	04/2021	09/2022				Exemption in exit direction	on 0.00%
Commissioning	2022	2023					
Grant Obtention Date	25/01/2018	25/01/2018					

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
sub-sea (string 1)	175 MW total for two strings	915	300	175	2022
sub-sea (string 2)	175 MW total for two strings	915	300	175	2023
	Total		600	350	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas
Specific Criteria Fulfilled Comments	30+ bcma of Turkmen gas, supplied via two different routes to different areas in the EU with expected growing import needs will significantly contribute to the enhancement of the level of competition, positively affect prices, improve Security of Supply, stimulate market integration and facilitate deployment of RES. Turkmen gas is readily available through wells with established production, including wells in the shut-in condition and connected to the 30 bcma throughput East-West pipeline with the Caspian shore. The overall transportation scheme is designed to maximize the use of pipelines already in operation or pipelines being constructed, thus in combination with relatively low production costs, this ensures competitive prices for gas for shippers. The TCP 1st and 2nd string will contribute to material reduction of share of the Russian supplies in affected countries.
	Delays since last TYNDP
Delay Since Last TYNDP	
Delay Explanation	The progress of the Trans Caspian Pipeline system was not that fast as previously expected because of lack of clarity regarding legal status of the Caspian Sea. Since the signature of the Caspian Sea convention - signed mid of 2018 - the perceived risks by potential investors has decreased, subsequently interest in the Trans Caspian Pipeline system has increased. Nevertheless, it takes some time to fully built up the necessary confidence of investors consequently it will be difficult to catch up regarding initial time schedule to the full extend, thus a rescheduling of the Trans Caspian Pipeline was advisable.

#### **Expected Gas Sourcing**

Caspian Region, Turkmenistan/Central Asia

	Benefits
Main Driver	Market Demand
Main Driver Explanatior	Gas from Turkmenistan can be the most competitively priced gas on the market in the European Union and the Energy Community. TCP could also further improve the economics of Azeri gas transportation via TANAP and enable the White Stream Pipeline, subsequently further increase market integration, competition and security of gas supply.
Benefit Description	TCP 1st and TCP 2nd string will indirectly and directly improve competition in the gas markets of the EU and the Energy Community, improve the security of gas supply, market integration and facilitate the deployment of RES at bigger scales in the EU as well as in the Energy Community.

	Barriers
Barrier Type	Description
Permit Granting	The project is at a too early stage at the moment regarding permit granting
Political	The progress of the Trans Caspian Pipeline system was not that fast as previously expected because of lack of clarity regarding legal status of the Caspian Sea. Since the signature of the Caspian Sea convention - signed mid of 2018 - the perceived risks by potential investors has decreased, subsequently interest in the Trans Caspian Pipeline system has increased. Nevertheless, it takes some time to fully built up the necessary confidence of investors consequently it will be difficult to catch up regarding initial time schedule to the full extend, thus a rescheduling of the Trans Caspian Pipeline was advisable.

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
	not	Grants for studies	Yes
Submissin Date		Grants for studies amount	Mln EUR 1.9
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bearer		Other Financial Assistance	No
	TCP 1st and 2n string are not located in any of the EU-	Comments	
Additional Comments	MS nor do they impact any of the EU-MS respectively Contracting Parties to the Energy Community directly.	General Comments	

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# TANAP X- Expansion of Trans Anatolian Natural Gas Pipeline Projec

TRA-A-782	Project	Pipeline including CS	Non-FID
Update Date	18/10/2019		Advanced
Description	TANAP X intends for the transportation of additional 9 bcma of the natural gas through Turkey to Europe.The TANAP (Trans-Anatolian Natural Gas Pipeline) P by opening up the Southern Gas Corridor. It constitutes a significant part of the Expansion) and TAP (Trans Adriatic Pipeline) pipelines and provides a platform initially upon gas supplies from Azerbaijan's Shah Deniz gas field. The TANAP pipeline length within the borders of Turkey is about 1850 km on to includes an outside pipe diameter of 56 and 48 inches, across land and two 36 Dardanelle crossing through the Sea of Marmara.	roject will contribute to the European gas supp e gas supply value chain together with SCPX (S to foster gas to gas competition in European g the section up to Greece connection to TAP Pip	ly security and diversity outh Caucasus Pipeline- jas market based eline Project. TANAP
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Kipi (TR) / Kipi (TAP)	TANAP TSO	2025	TR/TNP	GR/TAP	286.00 GWh/d
Türkgözü	TANAP TSO	2025	GE/SCP	TR/TNP	286.00 GWh/d

Sponsors			General Information	N	IDP and PCI Information	
"SOUTHERN GAS CORRIDOR" CLOSED JOINT STOCK COMPANY	51%	Promoter	SOCAR (The State Oil Company of the Azerbaijan Republic)	Part of NDP	No ((4) there is no obligation at natic level for such a project to be part of	
BORU HATLARI İLE PETROL TAŞIMA A.Ş. (BOTAS)	30%	Operator	TANAP TSO		Λ	NDP)
	5070	Host Country	Turkey	NDP Number		
BP PIPELINES (TANAP) LIMITED	12%	Status	In Progress	NDP Release Date		
SOCAR Turkey Energy A.S.	7%	Website	Project's URL	NDP Website		
-			-	Currently PCI		No
				Priority Corridor(s)		

<b>Current TYNI</b>	<b>OP : TYNDP</b>	2020 -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		08/2021
Feasibility	08/2021	12/2021
FEED	01/2022	05/2022
Permitting	05/2022	07/2022
Supply Contracts		09/2022
FID		12/2022
Construction	02/2023	12/2025
Commissioning	2025	2025
Grant Obtention Date	01/03/2016	01/03/2016

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Eskishehir (Turkey)-Greece Border		1,219	460	70	2025
Georgia/Turkey border- Eskishehir		1,442	1,347	125	2025
	Total		1,807	195	

#### **Fulfilled Criteria**

Specific Criteria Fulfilled

lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through

Specific Criteria Fulfilled Comments TANAP brings new alternative supply of natural gas from new supllier. It plays crucial role in diversification and security of supply to the EU, fosters sustainability and competition. It also develops gas network and fosters gasification of Central South and Southen Europe Region.

Delays since last TYNDP

Delay Since Last TYNDP

**Delay Explanation** 

# Caspian Region

		Benefits					
Main Driver	Others						
Main Driver Explanation	Diversification of suplly sources and routes New supply source to the European Union Market demand Competition Access to new markets						
Benefit Description	Diversification of supply Diversification of routes Benefits sustainability Emission Reduction Benefit infrastructure bottleneck Enabling other PCI and non-PCI projects Significant cross-border effect Possibility of further expansion						
		Barriers					
Barrier Type	Description						
Others	Lack of support from Member States when applying for Support Letter for Grants. Relevant Member States authorities should be more aware of the Projects which bring gas volumes to EU markets.						
Financing	Low oil prices in t	he world, which constitute the income of TANAP's major shareholder SGC.					
Financing	Availability of fun	ds and associated conditions					
Market	Lack of market m	aturity					
Market	Lack of market su	pport					
		Intergovernmental Agreements					
Agreement		Agreement Description	Is Signed	Agreement Signature Date			
Intergovernmental Agreement between Turkey and Azerbaijan		Intergovernmental Agreement (IGA) between the Government of the Republic of Turkey and the Government of the Republic of Azerbaijan Concerning the Trans Anatolian Natural Gas Pipeline System	Yes	26/06/2012			

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Expected Gas Sourcing

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 15.4
Website		Grants for works	No
Countries Affected		Grants for works amount	Mln EUR 0.0
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies only
Additional Comments	Our Project does not have CDCA desicion by NRA or	Other Financial Assistance	No
Additional comments	ACER	Comments	
		General Comments	

### Trans-Balkan Bi-directional Flow

TRA-F-1169		Project		Pipeline including	J CS	FID
Update Date		15/06/2020			A	dvanced
Description	Corridor. The Trans-Balka some reconstructions. The with Romania. In case of c of Balkan Region and wou Romania to CEE Region, in	ey element of energy security of the Balkans and Son route consists of three high diameter pipelines, whe Ukrainian GTS and Moldavian GTS can transport up construction of TANAP and Turkish stream, this projected ensure utilization of the existing infrastructure. The alia to provide the offshore gas production compression of the Balkan and CEE regions; - to enter alia to provide the Balkan and t	hich can transpo p to 20 bcm fror ect would becon he key overall ol npanies with the	rt bi-directionally up to n/to UA-PL, UA-SK and ne a strategic one as it ojectives are: - to facil access to the gas infra	o 20 bcm of natur d UA-HU borders could ensure secu itate export of nat astructure and the	al gas after to/from the IPs urity of supply cural gas from
PRJ Code - PRJ Name	2					
Capacity Increments V	/ariant For Modelling					
	Variant : Phase 1	Phase 1 - establishment of physical ar year, which would not require buildin			p to 1.5 bcm per	
Point		Operator	Year	From Gas System	To Gas System	Capacity
Grebenyky		LLC Gas TSO of Ukraine	2020	UA	MD	43.10 GWh/d
Стеренуку				Comment: Entry to Uk	kraine-reverse flow	/
Capacity Increments V	/ariant(s) For Information Only					
	Variant : Phase 3	Phase 3 -establishment of physical an maximum capacity (approximately 20		a Transit 1-2-3 pipelir	nes up to their	
Point		Operator	Year	From Gas System	To Gas System	Capacity
Careboundar		LLC Gas TSO of Ukraine	2024	UA	MD	574.10 GWh/c
Grebenyky				Comment: Entry to Uk	kraine-reverse flow	/
Capacity Increments V	/ariant(s) For Information Only					
	Variant : Phase 2	Phase 2 - establishment of physical a capacity of 5 bcm per year	nd virtual flow v	ia Transit 1 pipeline u	p to its maximum	1
Point		Operator	Year	From Gas System	To Gas System	Capacity
Crobonylay		LLC Gas TSO of Ukraine	2021	UA	MD	143.50 GWh/c
Grebenyky				Comment: Entry to Uk	kraine-reverse flow	/

Date

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Sponsors			Gene	ral Information	NDP and PCI Information		
PJSC "UKRTRANSGA	AZ"	57%	Promoter	LLC Gas TSO of Ukraine	Part of NDP	No ((2) no NDP exists in the country)	
			Operator		NDP Number		
			Host Country	Ukraine	NDP Release Date		
			Status	Planned	NDP Website		
			Website		Currently PCI	No	
					Priority Corridor(s)		
Schedule	Start Date	End Date			Third-Pa	arty Access Regime	
Pre-Feasibility		08/2019			Considered TPA Regime	Regulated	
Feasibility	08/2019	08/2019			Considered Tariff Regime	Regulated	
FEED	08/2019	08/2019			Applied for Exemption	No	
Permitting	08/2019	09/2019			Exemption Granted	No	
Supply Contracts		09/2019					
FID		09/2019			Exemption in entry direct	ion 0.00%	
Construction	10/2019	11/2019			Exemption in exit directio	on 0.00%	
Commissioning	2020	2020					
Grant Obtention							

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urrent TYNDP : TYNDF					Pag	ge 765 of 773
Pipelines and Compress	Phase 1	Phase 1 - establishment of physical and virtual flow via Transit 1 pipeline up to 1.5 bcm per year, which would not require building additional infrastructure				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissionir Year
Phase 1		From the Ukrainian side it is necessary to reconstruct the GMS Grebenyky. On the Moldavian side, it is necessary to reconstruct the GMS Kaushany.	800	355	0	2020
	Tota	l		355	0	
Pipelines and Compress	sor Stations - Alternative Variant					
	Phase 2	Phase 2 - establishment of physical and virtual flow via Transit 1 pipeline up to its maximum capacity of 5 bcm per year				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioni Year
Phase 2		Phase 2 also requires some reconstruction works by Romanian TSO. From Ukrainian side is necessary reconstruction of CS and GMS Orlovka and the CS Berezivka. On the Moldavian side, it is necessary to reconstruct the CS Vulkaneshty.	800	355	20	2021
	Tota	l		355	20	
Pipelines and Compress	sor Stations - Alternative Variant					
	Phase 3	Phase 3 -establishment of physical and virtual flow via Transit 1-2-3 pipelines up to their maximum capacity (approximately 20 bcm per year)				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissionii Year
Phase 3		Phase 3 -establishment of physical and virtual flow via Transit 1-2-3 pipelines up to their maximum capacity (approximately 20 bcm per year)	1,400	449	305	2024
	Tota			449	305	

#### LNG (GR)

		Benefits
Main Driver	Market Demand	
Main Driver Explanat	ion	
Benefit Description		

**Expected Gas Sourcing** 

	СВСА	Finan	cial Assistance
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF
Decision	but we do plan to submit it	Grants for studies	No
Submissin Date	01/07/2018	Grants for studies amount	Mln EUR 0.0
Decision Date		Grants for works	No
Website		Grants for works amount	Mln EUR 0.0
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

		ls	landmagee Gas Storage Facility				
UGS-A-294		F	Project		Storage Facilit	:y N	lon-FID
Update Date			28/09/2020			A	dvanced
Description			ndmagee Energy Limited plans to create seven Northern Ireland's ability to meet the increasing				
PRJ Code - PRJ Name	•						
Capacity Increments Varia	nt For Modelling						
Point		Op	perator	Year	From Gas System	To Gas System	Capacity
		Isl	andmagee Storage Ltd	2022	STcUKn	UKn	90.00 GWh/d
		Isla	andmagee Storage Ltd	2022	UKn	STcUKn	132.00 GWh/d
Islandmagee			Comment: The project is a gas storage fac ncremet as stated. The facility is planned to inj so the increment could be as low as 0 per day local demand and it has been difficult to	iect at 1 ⁄ or pea	12mcm a day and with Ik at the stated 132. T	ndraw at 22mcm a This will depend on	
		Isla	andmagee Storage Ltd	2026	STcUKn	UKn	175.00 GWh/d
		Isl	andmagee Storage Ltd	2026	UKn	STcUKn	65.00 GWh/d
Sponsors			General Information		NDP and	PCI Information	
InfraStrata plc	100%	Promoter	Islandmagee Storage Limited	Part	of NDP	Yes (Northern Irela	
		Operator	Islandmagee Storage Ltd				Statement)
		Host Cour	try United Kingdom		Number		n.a.
		Status	Planned		Release Date		
		Website	Project's URL		Website		<u>NDP URL</u>
					ently PCI		No
				Priori	ity Corridor(s)		NSIW

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Schedule	Start Date	End Date	Third-Party Access
asibility			Considered TPA Regime
lity			Considered Tariff Regime
	01/2018	12/2018	Applied for Exemption
ing			Exemption Granted
Contracts		06/2019	
		09/2019	Exemption in entry direction
truction	10/2019	05/2022	Exemption in exit direction
nissioning	2022	2026	
)btention	17/06/2016	17/06/2016	

			Technical Information	n (UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	LOAU FACTOR	Comments	Commisioning Year
Islandmagee Gas Storage Facility	Salt Cavern	Yes	Project Construction	420	22.0	12.0	20	The project is post FEED and currently in FID. Gas offtake agreement is in place with Vitol.	2022

#### **Fulfilled Criteria**

Specific Criteria Fulfilled

Competition, inter alia through diversification of supply sources, supplying counterparts and routes, Market Integration, inter alia through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks, interoperability and system flexibility, Security of Supply, inter alia through appropriate connections and diversification of supply sources, supplying counterparts and routes, Sustainability, inter alia through reducing emissions, supporting intermittent renewable generation and enhancing deployment of renewable gas

Specific Criteria Fulfilled Comments

urrent TYNDP : TYNDI	2020 - Annex A	Page 769 of 773				
	Delays since last TYNDP					
Delay Since Last TYNDP	approx 3 years					
Delay Explanation	The project has been rescheduled due to the availability of finance and	d the difficult trading conditions within the UK gas market.				
	Expected Gas Sourcing					
he project will source it	ts gas from the main UK network supply					
	Benefits					
/lain Driver	Others					
Main Driver Explanation	The main project drivers are the security of gas supply for NI/IE and the ability to a single connector at Moffat that provides gas and any disruption to this would have					
Benefit Description	nefit Description The facility will remove the bottleneck between NI & IE markets caused by pressure differentials between the two networks, by environmentation of the sufficient to enable export of gas from NI to IE. The project will end energy isolation due to greater connectivity we currently fully import dependent. The facility will permit exports to be delivered from NI, enhancing free flow of gas to meet local alternative source of gas supply to IE. The facility will enhance physical and price security of supply for the NI, IE and GB markets, support to renewable electricity generation in both ROI and NI by increasing the availability of flexible gas supplies to support gas will be increasingly required to operate in conjunction with intermittent wind generation.					
	Barriers					
Barrier Type	Description					
ermit Granting	PCI projects cannot currently benefit from accelerated permitting without a local B	Executive in place.				
Political	The UK government does not place enough importance on the availability of gas difficult to manage.	storage and as such the economic conditions for such a facility are				
Regulatory	Low rate of return					
larket	Lack of market support					
Regulatory	Low or zero-priced short-term capacity					
Financing	Availability of funds and associated conditions					

	CBCA	Financial Assistance		
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision;#(2) Yes, we have applied for CEF, but we have not received a decision yet	
Submissin Date		Grants for studies	Yes	
Decision Date		Grants for studies amount	Mln EUR 4.6	
Website		Grants for works	No	
Countries Affected		Grants for works amount	Mln EUR 0.0	
Countries Net Cost Bearer		Intention to apply for CEF		
Additional Comments		Other Financial Assistance	No	
		Comments		
		General Comments		
		General Comments		

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# Physical reverse flow from NI to GB and IE via SNIP pipeline

TRA-N-27		Project		Pipeline inclue	ding CS	Non-FID
Update Date			22/11/2019		Νο	n-Advanced
lescription	Installation of bi-drectional compression on Scotland to Northern Ireland pipeline (SNI metering and flow control and moving gas odourisation point to a new point(s) downs					
PRJ Code - PRJ Name -						
Capacity Increments Variant For	Modelling					
Point		Operator		Year From Gas Syste	em To Gas System	Capacity
Moffat		Premier Tra	ansmission Ltd	2021 UKn	Y-UKm	131.00 GWh/c
Sponsors		G	eneral Information	NDP and PCI Information		
Premier Transmission Ltd	100%	Promoter	Premier Transmission Limited	Part of NDP	Yes (Northern Ireland Gas Capaci	
		Operator	Premier Transmission Ltd		Staten	nent - section 3.21
		Host Country	United Kingdom	NDP Number		5.1.
		Status	Planned	NDP Release Date		04/12/201
		Website	Project's URL	NDP Website		<u>NDP UR</u>
				Currently PCI		Ν
				••••••		

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Schedule	Start Date	End Date	
Pre-Feasibility		10/2019	Conside
easibility	10/2019	10/2019	Considered
EED	01/2020	01/2020	Applied for E
ermitting	10/2019	09/2020	Exemption Gra
upply Contracts		01/2020	
D		12/2020	Exemption in ent
onstruction	01/2021	09/2022	Exemption in exit
mmissioning	2021	2021	
rant Obtention			
ate			

Pipelines and Compressor Station	IS The second	Diameter			
Pipeline Section	Deline Section Pipeline Comment			Compressor Power (MW)	Comissioning Year
SNIP-Scotland to Northern Ireland		600		10	0
	Total			10	
	Fulfilled Criteria				
Specific Criteria Fulfilled Specific Criteria Fulfilled Comment	Competition, inter alia through diversification of supply sources, supplying a appropriate connections and diversification of supply sources, supplying co emissions, supporting intermittent renewable generation and enhancing de s	unterparts and routes,	Sustainat		-
	Delays since last TYNDP				
Delay Since Last TYNDP	Approx 2 years				
Explanation This project is linked to the Islandmagee gas storage project and has been subsequently delayed, in line with the gas storage project bein delayed – caused by the absence of competitive transmission tariffs for gas storage.			oject being		

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Benefits				
Main Driver	Market Demand			
Main Driver Explanation	Required by Islandmagee Gas Storage Project			
Benefit Description	This project will open up the GB-NI-Republic of Ireland corridor, and the Republic of Ireland-NI-GB corridor, both currently unavailable. All three markets would have the ability for physical bi-directional links for the first time. The project will allow future gas finds in Northern Ireland to be accessed by GB and RoI. The project will allow GB and RoI to access flexible gas storage planned for Northern Ireland – which is essential for Northern Ireland gas storage to be feasible. The planned upgrade will allow security of supply benefits due to the ability to use the planned gas storage facility. It will also provide back-up support for renewable generation.			

CBCA		Financial Assistance		
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
Decision	and we have not yet decided whether we will submit or	Grants for studies	No	
Culoris Data	not	Grants for studies amount	Mln EUR 0.0	
Submissin Date		Grants for works	No	
Decision Date		Grants for works amount	Mln EUR 0.0	
Website		Intention to apply for CEF		
Countries Affected		Other Financial Assistance	No	
Countries Net Cost Bearer		Comments		
Additional Comments		General Comments		