

#### GAS REGIONAL INVESTMENT PLAN 2014-2023

### **Central Eastern Europe**



#### **ANNEX B: INFRASTRUCTURE PROJECTS**



## Austria Gas Connect Austria Gmbh



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	2
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	+58,00
Applied for Exemption ?	No	Construction		Total CS Power (MW)	+24,00
Exemption granted ?	Not relevant	Commissioning	2019	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Reinthal - Bidirectional Austrian-Czech Interconnector	Yes	exit	255,13	Hub Austria	Hub Czech Republic
	Yes	entry	255,13	Hub Czech Republic	Hub Austria

The Bidirectional-Austrian-Czech-Interconnector (BACI) will be the first bidirectional connection between the Austrian and the Czech Market.

#### **EXPECTED BENEFITS**

Security of Supply, Market Integration, Diversification of Sources, Diversification of Routes

#### COMMENTS ABOUT THE PROJECT FINANCING

Public financing

Private financing

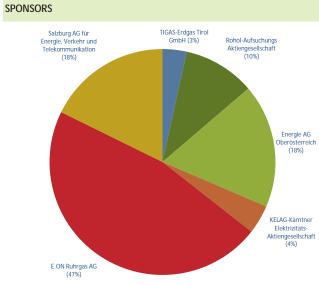
## Austria Tauerngasleitung GmbH

#### **TRA-N-035**

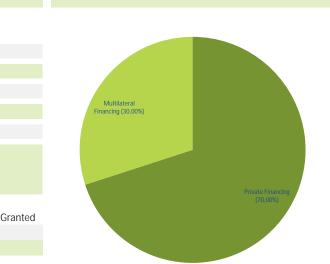
#### Tauerngasleitung Gas Pipeline Project\*

Non-FID

#### **Pipeline including CS**



GENERAL INFORMATIO	N		FINANCING		
Promoter	Tauerngasle	eitung GmbH			
Operator	ç	eitung GmbH			
TEN-E Project ?	Project of cor	nmon interest			
Interested by PCI ?	Y	es	Multilateral Financing (30,00%)		
IGAs	No	None			
Web Link	www.tauerngasleitung.at				
TEN-E Requests	Date of Request 28.04.2010	Year Funding Granted 2011			
	26.04.2006	2007			



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	Not yet
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	2014 Q4
FID	2014 Q2
Construction	2015 Q1
Commissioning	2018/4
Last completed Phase :	Planned

\* In 2013, the sponsor's shareholders announced that they intended to amend the sponsor's ownership structure through a tendering process. The TGL GmbH has been finally liquidated on 11.4.2014.

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+290,00
Total CS Power (MW)	+66,00
Expected Load Factor	

#### PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Tarvisio - IT / Arnoldstein (Transit) - TGL	Yes	exit	314,96	Tauerngas Leitung (Austria)	Hub Italia
	Yes	entry	65,40	Hub Italia	Tauerngas Leitung (Austria)
Haiming-Oberkappel (OGE) - DE / Burghausen (Transit) - TGL	Yes	exit	33,82	Tauerngas Leitung (Austria)	Hub Germany (NCG)
Haiming (OGE) - DE / Burghausen-Auerbach (Austrian Storage) - TGL	Yes	entry	143,82	Hub Germany (NCG)	Storage Austria
Haiming (bayernets) - DE / Burghausen-Auerbach (Austrian Storage) - TGL	Yes	exit	136,65	Storage Austria	Hub Germany (NCG)
Haiming (bayernets) - DE / Burghausen (Transit) - TGL	Yes	entry	180,74	Hub Germany (NCG)	Tauerngas Leitung (Austria)
	Yes	exit	30,14	Tauerngas Leitung (Austria)	Hub Germany (NCG)
Haiming (bayernets) - DE / Burghausen (Austrian Hub) - TGL	Yes	entry	148,61	Hub Germany (NCG)	Hub Austria

#### DESCRIPTION OF THE PROJECT

Pipeline (incl. compressor stations) in North-South direction. TGL allows feed significant volumes from different sources from South-East regions towards Central Europe.

#### **EXPECTED BENEFITS**

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional, Back-up for renewables, Power-to-gas, Biogas, SoS: Investments will be necessary, especially in crossborder gas transmission capacity, with a view to diversifying sources of supply, and gas transmission systems in general, especially where capacities may be needed in an emergency to supply areas with capacity shortfalls. The TGL is in line with these objectives, which focus mainly on security of supplies. Market Integration: By linking the Central European (Southern Germany) with the South-East European (mainly Italy) natural gas market, the TGL increases interoperability between gas markets in Europe which are still separate, develop new natural gas sources for these markets and therefore significantly improve competition within a European single market for natural gas. Diversification of European natural gas supplies: By creating the infrastructure required for a functioning North-South/South-North system to develop the North African and Arab supply region, including liquefied natural gas (LNG) for the Mediterranean region, the TGL will reduce dependence on individual suppliers in the North and East.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
	Own financing 30%. Loans 70% of which 70-80% fromcommercial banks and the rest from multilateral financing	20-30% of 70% of the overall external financing needs

## Bulgartransgaz EAD

#### **UGS-N-141** Construction of new gas storage facility on the territory of Bulgaria **Non-FID** Storage Facility GENERAL INFORMATION **SPONSORS** FINANCING Promoter Bulgartransgaz EAD Operator Bulgartransgaz EAD **TEN-E Project ?** Project of Common Interest Interested by PCI ? Yes IGAs None http://www.bulgartransgaz.bg/en/index.php Web Link

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		Storage facility	Not defined yet
Considered Tariff Regime	Regulated	FID		Working volume (mcm)	
Applied for Exemption ?	Not relevant	Construction		Total CS Power (MW)	
Exemption granted ?	Not relevant	Commissioning	2020	Deliverability (mcm/d)	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

Bulgartransgaz EAD (100%)

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Provision is made for the construction of new gas storage facility on the territory of Bulgaria with a view to ensuring security of supply and a stimulus to gas market liberalisation. Different opportunities for the construction of a new gas storage in suitable geological structures are considered - in salt caverns, depleted gas field (inland or offshore) or aquifer.

#### **EXPECTED BENEFITS**

Security of Supply, Market integration, N-1 National, N-1 Regional (Central Eastern Europe, South Eastern Europe, Balkan Region), Проектът е важен от гледна точка на очакваните допълнителни обеми алтернативен природен газ от Каспийския регион и от LNG терминалите в региона и ще обслужва не само националния, но и регионалния газов пазар след планираното изграждане на новите междусистемни връзки със съседните страни.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

#### Interconnection Turkey-Bulgaria Non-FID **TRA-N-140 Pipeline including CS** GENERAL INFORMATION FINANCING **SPONSORS** Bulgartransgaz EAD Promoter Operator Bulgartransgaz EAD TEN-E Project ? Project of Common Interest Interested by PCI ? Yes IGAs 2 Web Link http://www.bulgartransgaz.bg/en/index.php

THIRD-PARTY ACCESS REGIME		SC
Considered TPA Regime	Not applicable	En
Considered Tariff Regime	Not applicable	FII
Applied for Exemption ?	Not relevant	Сс
Exemption granted ?	Not relevant	Сс
% Exemption in entry direction	0%	La
% Exemption in exit direction	0%	

section on the territory of Bulgaria (100%)

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	2
FID		Total Pipeline Length (km)	+205,00
Construction		Total CS Power (MW)	
Commissioning	2016	Expected Load Factor	
Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector ITB (Turkey - Bulgaria)	Yes	entry	92,00	Hub Turkey (Imports)	Hub Greece

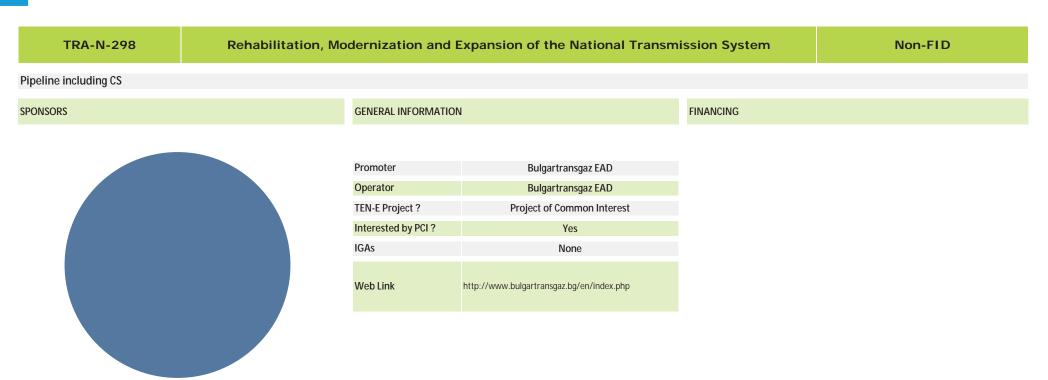
#### DESCRIPTION OF THE PROJECT

The interconnection is foreseen to be built as a development to the existing connection of Bulgartransgaz EAD and Botas S.A. – Turkey systems by creating the technical opportunity for enabling bi-directional physical flow of natural gas between both systems. Thus a significantly greater security of gas supply to our country can be achieved, meeting the N-1 security standard and diversification of natural gas supply sources. Preliminary plans are for a staged project development, with the commissioning in 2014 or 2015 of the first stage depending on the development of the Turkish gas transmission system.

#### **EXPECTED BENEFITS**

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional (Central and Eastern Europe, South Eastern Europe, Balkan Region), The interconnection Turkey-Bulgaria is a key project whose realization shall lead to the increase of the security of supply and the opportunity for diversification of gas supply not only to Bulgaria, but to the Central and South-Eastern Europe region as well. The project contributes directly to the diversification of gas sources: alternative gas producers - countries from the Caspian region, Turkish LNG terminals and Middle East.,

Private financing	Multilateral financing
r	ivate financing



2015

2017

THIRD-PARTY ACCESS REGIME		SCHEDULE	
Considered TPA Regime	Not applicable	End of permitting phase	
Considered Tariff Regime	Not applicable	FID	
Applied for Exemption ?	Not relevant	Construction	
Exemption granted ?	Not relevant	Commissioning	
% Exemption in entry direction	0%	Last completed Phase :	
% Exemption in exit direction	0%		

Bulgartransgaz EAD (100%)

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	
Total Pipeline Length (km)	
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

A set of activities involving rehabilitation, modernisation and expansion of the existing national gas transmission infrastructure with a view to guaranteeing the possibility of the national gas transmission system to ensure the transport of sufficient natural gas volumes through the territory of the country using the planned new interconnections to other countries from the region of South Eastern, Central and Eastern Europe and in the context of the large cross-border gas projects in the region. The project mostly include compressor stations modernisation (CS Valchi Dol and CS Polski Senovets) as well as in-line inspections, complete overhauls and replacement of gas pipeline sections of the main gas pipelines that are part of the annularly built gas transmission system and construction regulating lines at the exits of gas pipeline branches off the main and transit gas pipeline to enhance its reliability, security and capacity.

#### **EXPECTED BENEFITS**

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional (Central and Eastern Europe, South Eastern Europe, Balkan Region), The modernisation, rehabilitation and expansion of the existing gas transmission network are directly linked to the planned new interconnections with Greece (IGB), Romania (IBR), Turkey (ITB) and Serbia (IBS), the integration of the national and the transit gas transmission system on the territory of Bulgaria and the development of the large cross-border gas projects in the region. The efficient use of the new entry and exit points from/to Bulgartransgaz gas transmission networks is directly linked to the territory of Bulgaria to ensure sufficient capacity and suitable technical conditions to accommodate the transport of the planned new natural gas quantities and to the available storage capacity and and the expansion of the gas storage facility in Chiren unique on the territory of the country accordingly.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

UGS-N-138	UG	Non-FID		
Facility				
RS	GENERAL INFORMAT	ION	FINANCING	
	Promoter	Bulgartransgaz EAD		
	Operator	Bulgartransgaz EAD		
	TEN-E Project ?	Project of Common Interest		
	Interested by PCI ?	Yes		
	IGAs	None		
	Web Link	http://www.bulgartransgaz.bg/en/index.php		
Bulgartransgaz EAD (100%)				

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	Not relevant
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INF
End of permitting phase		Storage facility
FID	2014	Working volum
Construction		Total CS Power
Commissioning	2017	Deliverability (
Last completed Phase :		

TECHNICAL INFORMATION	
Storage facility	UGS Chiren
Working volume (mcm)	+450,00
Total CS Power (MW)	+5,80
Deliverability (mcm/d)	+5,80

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - BG - Chiren - Bulgartransgaz	Yes	exit	65,00	Hub Bulgaria (NGTS)	Storage Bulgaria (NGTS)
	Yes	entry	65,00	Storage Bulgaria (NGTS)	Hub Bulgaria (NGTS)
	Yes	exit	65,00	Hub Bulgaria (NGTS)	Storage Bulgaria (NGTS)
	Yes	entry	65,00	Storage Bulgaria (NGTS)	Hub Bulgaria (NGTS)

The project for expansion of the existing gas storage facility Chiren consists of staged capacity increse of the gas storage facility – higher stored gas volumes, higher pressures in the gas reservoir and reaching higher average daily withdrawal and injection flow rates.

Two options of reaching maximum capacities are mainly under consideration:

- up to 130 bar fomation pressure, active gas 720 mcm and daily production and withdrawal flow 10 mcm.

- up to 150 bar formation pressure, active gas 1000 mcm and daily production and withdrawal flow 10 mcm.

#### EXPECTED BENEFITS

Security of Supply, Market integration, N-1 National, N-1 Regional (Central Eastern Europe, South Eastern Europe, Balkan Region), In this moment UGS Chiren covers mainly seasonal fluctuations in domestic consumption and ensures the security of supply. Additional stored volumes and higher withdrawal and injection rates will serve Bulgarian and regional gas markets (Greek, Romanian, Macedonian and Serbian) via the existing and the new interconnections - IBR, IGB, IBS and ITB. The expansion of the UGS together with the planned gas pipeline projects is of high importance for the implementation of the Infrastructure Standard N-1 (Regulation EU No 994/2010).

DMMENTS ABOUT THE PROJECT FINANCING						
Public financing	Private financing	Multilateral financing				

## Bulgaria ICGB EAD



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Yes
Exemption granted ?	Not yet
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase	2014 Q1	# of Pipelines, nodes, CS	2
FID	2014 Q2	Total Pipeline Length (km)	+182,00
Construction	2014 Q3	Total CS Power (MW)	+10,00
Commissioning	2016/1	Expected Load Factor	
Last completed Phase :	Permitting		

PROJECTED CAPACITY INCREASES Capacity (GWh/d) From Zone To Zone Interconnection Modelled Direction Komotini - TAP / IGB Yes 82,00 Trans-Adriatic Pipeline (Greece) Interconnector Greece-Bulgaria (Bulgaria) entry 82,00 Interconnector Greece-Bulgaria Trans-Adriatic Pipeline (Greece) Yes exit Stara Zagora - IGB / BG Yes 82,00 Hub Bulgaria (NGTS) Interconnector Greece-Bulgaria (Bulgaria) entry Interconnector Greece-Bulgaria Hub Bulgaria (NGTS) Yes exit 82,00

#### DESCRIPTION OF THE PROJECT

An onshore natural gas pipeline that will connect Komotini in Greece to Stara Zagora in Bulgaria. The IGB pipeline is being developed by ICGB AD, with shareholders IGI-Poseidon S.A. and Bulgarian Energy Holding EAD

#### **EXPECTED BENEFITS**

Security of Supply, Market integration (Greece, Bulgaria, Romania, Hungary, FYROM, Serbia), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Greece, Bulgaria), N-1 Regional (NSI East Gas), Back-up for renewables, Power-to-gas, The project will contribute significantly in the itegration of the market area, specifically the South Eastern Europe, and will allow to alleviate to a great extend the dependency of countries in the area to a single source/counterpart.Taking into account that the objective of the project is to bring additional import quantities of natural gas in Bulgaria and South Eastern Europe it significantly improves the resilience of the system in both short (the additional quantities will be able to cover daily peak demands) and long term.

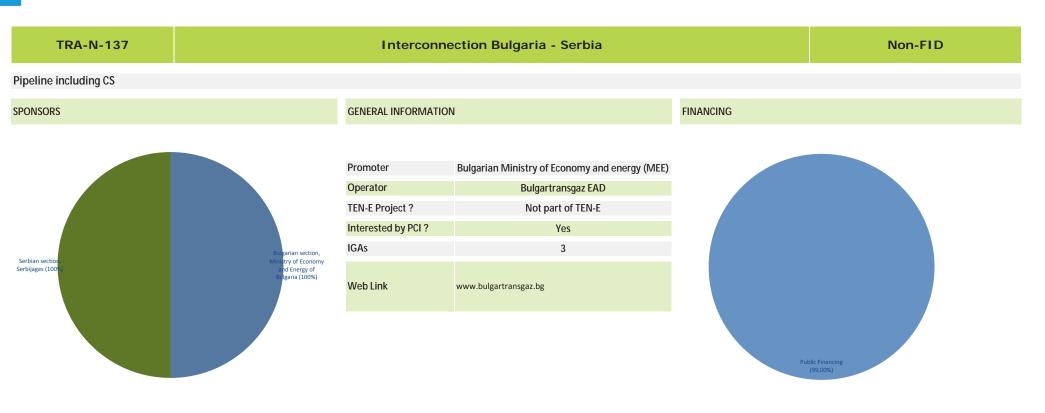
Specifically for the long term, the diversification in route, supply source as well as counterparts will have a great positive impact on the resilience of the system and will be able to cater to any forecasted increase in demand over the coming years.

The impact of the project in the systems flexibility under disruption (n-1 rule) will be significant taking into account that it will create a new interconnections carrying gas from a new source allowing new counterparts to enter the market. A possible disruption in any of the other import sources (including the regional disruption of Russian gas) will NOT AFFECT this one having a great positive impact on the remaining flexibility of the system.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

## Bulgaria Ministry of Economy and Energy of Republic of Bulgaria

#### BULGARIA



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		-
End of permitting phase	2014	Ŧ
FID	2014	-
Construction	2015	
Commissioning	2015	I
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+155,00
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone Interconnector BG RS Hub Serbia Yes exit 51,00 Hub Bulgaria (NGTS) Yes 51,00 Hub Serbia Hub Bulgaria (NGTS) entry

#### **DESCRIPTION OF THE PROJECT**

This is the first interconnection between the gas transmission systems of Serbia and Bulgaria. The project establishes a connection between the Bulgarian and Serbian gas markets that currently are not connected.

#### **EXPECTED BENEFITS**

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional, The projects listed above should enhance the system flexibility and contribute to the security of supply within the region (increased interconnection between Bulgaria and Serbia),

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
Competitiveness of the Bulgarian Economy Operational Programme		

# Bulgarian Shareholder Bulgarian

(Bulgarian Shareholder Bulgarian Energy Holding EAD)

TRA-N-308	South Stream Bulgaria - Stage I				
e including CS					
RS	GENERAL INFORMATIO	N	FINANCING		
	Promoter	South Stream Bulgaria AD (Bulgarian			
	Operator	Bulgartransgaz EAD			
	TEN-E Project ?	Not part of TEN-E			
	Interested by PCI ?	Not defined yet			
	IGAs	None			
	Web Link				
Pulastransas FAD					
Bulgartransgaz EAD (100%)					

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION
Considered TPA Regime	Not applicable	End of permitting phase		# of Pipelines, nodes, CS
Considered Tariff Regime	Not applicable	FID		Total Pipeline Length (km)
Applied for Exemption ?	Not relevant	Construction		Total CS Power (MW)
Exemption granted ?	Not relevant	Commissioning	2015	Expected Load Factor
% Exemption in entry direction	0%	Last completed Phase :		
% Exemption in exit direction	0%			

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
South Stream into Bulgaria (BG)	Yes	entry	162,50	South Stream (Russia)	Hub Bulgaria (NGTS)

First stage of the South Stream interconnection to the Bulgarian network, as understood by ENTSOG based on e-mail exchange.

#### **EXPECTED BENEFITS**

#### COMMENTS ABOUT THE PROJECT FINANCING

#### Public financing

Private financing

TRA-N-309		Non-FID			
eline including CS					
NSORS	(	GENERAL INFORMATION		FINANCING	
	F	Promoter	South Stream Bulgaria AD (Bulgarian		
	(	Operator	Bulgartransgaz EAD		
	l l l l l l l l l l l l l l l l l l l	FEN-E Project ?	Not part of TEN-E		
		nterested by PCI ?	Not defined yet		
	1	GAs	None		
	, i i i i i i i i i i i i i i i i i i i	Web Link			
Bulgartransgaz EAD (100%)					

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION
Considered TPA Regime	Not applicable	End of permitting phase		# of Pipelines, nodes, CS
Considered Tariff Regime	Not applicable	FID		Total Pipeline Length (km)
Applied for Exemption ?	Not relevant	Construction		Total CS Power (MW)
Exemption granted ?	Not relevant	Commissioning	2016	Expected Load Factor
% Exemption in entry direction	0%	Last completed Phase :		
% Exemption in exit direction	0%			

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
South Stream into Bulgaria (BG)	Yes	entry	62,10	South Stream (Russia)	Hub Bulgaria (NGTS)

Second stage of the South Stream interconnection to the Bulgarian network, as understood by ENTSOG based on e-mail exchange.

#### **EXPECTED BENEFITS**

#### COMMENTS ABOUT THE PROJECT FINANCING

#### Public financing

Private financing

RA-N-310	South Stre	eam Bulgaria - Stage III		Non-FID
cluding CS				
	GENERAL INFORMATIC	N	FINANCING	
	Promoter	South Stream Bulgaria AD (Bulgarian		
	Operator	Bulgartransgaz EAD		
	TEN-E Project ?	Not part of TEN-E		
	Interested by PCI ?	Not defined yet		
	IGAs	None		
	Web Link			

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION
Considered TPA Regime	Not applicable	End of permitting phase		# of Pipelines, nodes, CS
Considered Tariff Regime	Not applicable	FID		Total Pipeline Length (km)
Applied for Exemption ?	Not relevant	Construction		Total CS Power (MW)
Exemption granted ?	Not relevant	Commissioning	2017	Expected Load Factor
% Exemption in entry direction	0%	Last completed Phase :		
% Exemption in exit direction	0%			

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
South Stream into Bulgaria (BG)	Yes	entry	15,50	South Stream (Russia)	Hub Bulgaria (NGTS)

Third and final stage of the South Stream interconnection to the Bulgarian network, as understood by ENTSOG based on e-mail exchange.

#### **EXPECTED BENEFITS**

#### COMMENTS ABOUT THE PROJECT FINANCING

#### Public financing

Private financing



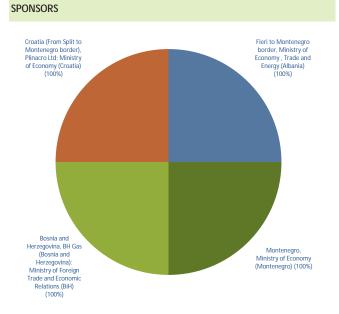
#### **TRA-N-068**

#### Ionian Adriatic Pipeline

GENERAL INFORMATION

Non-FID

#### **Pipeline including CS**



Promoter	Plinacro Ltd
Operator	Plinacro Ltd
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	2
Web Link	www.plinacro.hr

FINANCING

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		
End of permitting phase		Ŧ
FID		
Construction	2015	
Commissioning	2020	I
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	3
Total Pipeline Length (km)	+540,00
Total CS Power (MW)	
Expected Load Factor	

#### PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Ionic-Adriatic Pipeline - IAP / AB	Yes	exit	30,00	Ionic-Adriatic Pipeline (Croatia)	Hub Albania
Trans-Adriatic Pipeline - TAP / Ionic-Adriatic Pipeline - IAP	Yes	entry	150,00	Trans-Adriatic Pipeline (Greece)	Ionic-Adriatic Pipeline (Croatia)
Ionic-Adriatic Pipeline - IAP / Split - HR	Yes	entry	75,00	Ionic-Adriatic Pipeline (Croatia)	Hub Croatia
Ionic-Adriatic Pipeline - IAP / BH	Yes	exit	30,00	Ionic-Adriatic Pipeline (Croatia)	Hub Bosnia Herzegovina
Ionic-Adriatic Pipeline - IAP / ME	Yes	exit	15,00	Ionic-Adriatic Pipeline (Croatia)	Hub Montenegro

#### DESCRIPTION OF THE PROJECT

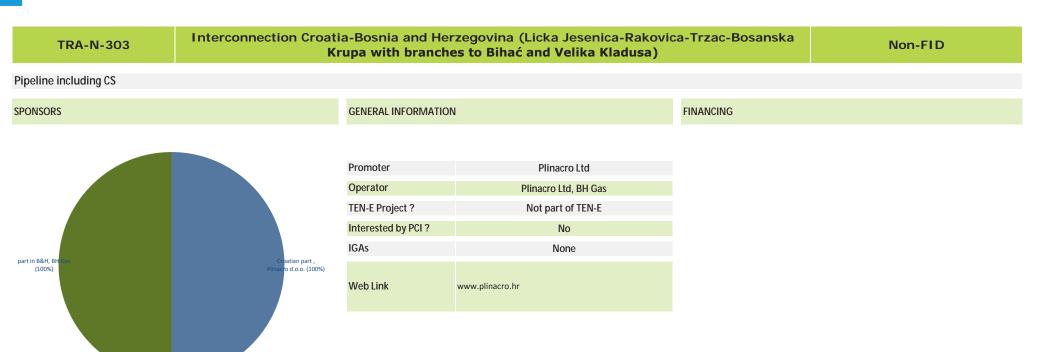
The pipeline will cross the territory along the Adriatic coast from Fieri in Albania via Montenegro to Split in Croatia and will be linked to the existing Croatian gas transmission system (main direction Bosiljevo – Split). The Ionian-Adriatic Pipeline is considered a part of the Energy Community Gas Ring, which is the concept of gasification for the entire region, proposed by the WB Study and accepted by the Gas Fora of the Energy Community.

#### **EXPECTED BENEFITS**

Security of Supply, Market integration (Market Integration benefits for Croatia

and the region (Albania, Montenegro, Bosnia and Herzegovina and neighbouring countries), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional (Balkan region), Back-up for renewables,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	2
FID		Total Pipeline Length (km)	+30.00
Construction		Total CS Power (MW)	
Commissioning	2023	Expected Load Factor	
Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Rakovica (HR) / Trzac (BA)	Yes	exit	45.00	Hub Croatia	Hub Bosnia and Herzegovina

#### DESCRIPTION OF THE PROJECT

Interconnection Croatia-Bosnia and Herzegovina on route Licka Jesenica-Rakovica in Croatia to border with Bosnia and Herzegovina. Bosnian part is from Trzac to Bosanska Krupa with branches to Bihać and Velika Kladusa.

#### **EXPECTED BENEFITS**

Security of Supply, Market integration, Diversification of sources, N-1 National (for B&H), N-1 Regional, The aim of the project is to assess the feasibility of providing gas supply to the Una-Sana Canton in B&H from the Croatian gas supply network. This supply network will be from the Lička Jesenica gas transmission node in Croatia via Lika to the HR/B&H 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 B&H will allow additional gasification in the part of Croatia along the pipeline route.,

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing Multilateral financing					

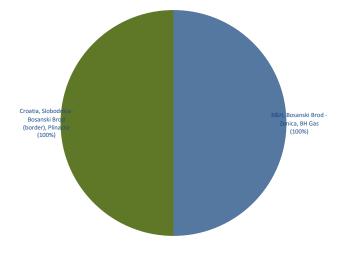


GENERAL INFORMATION

Non-FID

#### Pipeline including CS

**SPONSORS** 



Promoter	Plinacro Ltd		
Operator	Plinacro Ltd, BH Gas		
TEN-E Project ?	Not part of TEN-E		
Interested by PCI ?	NO		
IGAs	2		
Web Link	www.plinacro.hr		

FINANCING

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORM
End of permitting phase		# of Pipelines, node
FID		Total Pipeline Leng
Construction	2018	Total CS Power (M
Commissioning	2019	Expected Load Fact
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+6,00
Total CS Power (MW)	
Expected Load Factor	+0,90

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Slobodnica- Bosanski Brod-Zenica	Yes	exit	44,00	Hub Croatia	Hub Bosnia Herzegovina

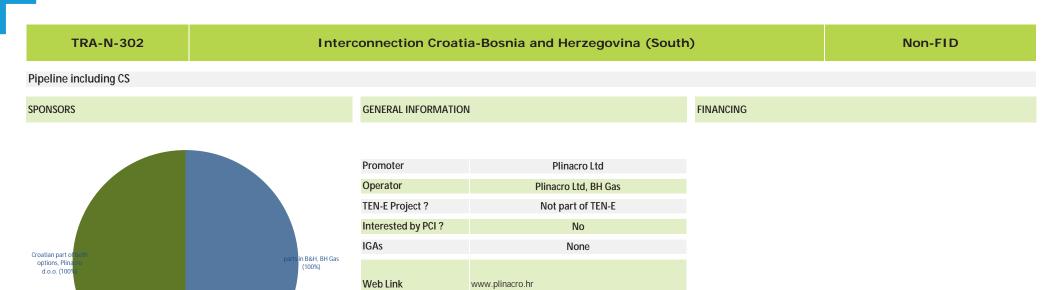
#### DESCRIPTION OF THE PROJECT

The pipeline covers the countries Croatia and Bosnia and Herzegovina and it will be the part of Energy Community Ring. The pipeline goes from Slavonski Brod (Slobodnica) in Croatia, it will cross the Sava river to Bosanski Brod in Bosnia and Herzegovina with furter extension to Zenica.

#### **EXPECTED BENEFITS**

Market integration, Reverse Flows, N-1 Regional (For Bosnia and Herzegovina), Back-up for renewables, It will be new interconnection, new entry point and transmission route for the needs of B&H; it will be SoS and diversification of supply route for Bosnia and Herzegovina,

COMMENTS ABOUT THE PROJECT FINANCING						
Public financing	Private financing	Multilateral financing				



THIRD-PARTY ACCESS REGIME				
Considered TPA Regime	Regulated			
Considered Tariff Regime	Regulated			
Applied for Exemption ?	No			
Exemption granted ?	No			
% Exemption in entry direction	0%			
% Exemption in exit direction	0%			

SCHEDULE		TECHNICAL INFORMATION		
End of permitting phase		# of Pipelines, nodes, CS	3	
FID		Total Pipeline Length (km)	+29.00	
Construction		Total CS Power (MW)		
Commissioning	2018	Expected Load Factor		
Last completed Phase :	Planned			

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Zagvozd-Imotski-Posušje	Yes	exit	45.00	Ionic-Adriatic Pipeline (Croatia)	Hub Bosnia and Herzegovina

South Interconnection of Croatia and B&H - the pipeline is actually branch from planned regional Ionic Adriatic Pipeline - IAP.

### **EXPECTED BENEFITS**

Security of Supply, Market integration, Diversification of sources, N-1 National (for B&H), N-1 Regional, The aim of the project is to establish a new supply route for B&H providing a diversified and reliable natural gas supply.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



THIRD-PARTY ACCESS REGIME				
Considered TPA Regime	Regulated			
Considered Tariff Regime	Regulated			
Applied for Exemption ?	No			
Exemption granted ?	No			
% Exemption in entry direction	0%			
% Exemption in exit direction	0%			

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	2
FID		Total Pipeline Length (km)	+102,00
Construction	2018	Total CS Power (MW)	
Commissioning	2023	Expected Load Factor	
Last completed Phase :	Planned		

 PROJECTED CAPACITY INCREASES

 Interconnection
 Modelled
 Direction
 Capacity (GWh/d)
 From Zone
 To Zone

 Slobodnica - Sotin (HR) / Bačko Novo Selo (RS)
 Yes
 exit
 176,00
 Hub Croatia
 Hub Serbia

### DESCRIPTION OF THE PROJECT

Covering Croatia and Serbia, connecting the Croatian gas transmission system to the Serbian gas transmission system Slobodnica - Sotin (Croatia) - Bačko Novo Selo (Serbia)

### **EXPECTED BENEFITS**

Market integration, Reverse Flows, Diversification of routes, N-1 Regional (For Serbia), Back-up for renewables, It will be new entry point and transmission route for the needs of Serbia,

COMMENTS ABOUT THE PROJECT FINANCING						
Public financing	Private financing	Multilateral financing				

TRA-N-086	Interconnection	Croatia/Slovenia	(Bosiljevo - Karlovac - Lučko - Zab	ook - Rogatec)	Non-FID
Pipeline including CS					
PONSORS		GENERAL INFORMATIO	Ν	FINANCING	
		Promoter	Plinacro Ltd		
		Operator	Plinacro Ltd		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	Yes		
		IGAs	None		
		Web Link	www.plinacro.hr		
Plinacro (1	20%)				

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL
End of permitting phase		# of Pipelin
FID	2017	Total Pipel
Construction		Total CS Pc
Commissioning	2018	Expected L
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	5
Total Pipeline Length (km)	+296,00
Total CS Power (MW)	
Expected Load Factor	+0,90

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Rogatec	No	exit	165,00		
	Yes	entry	165,00	Hub Slovenia	Hub Croatia

Upgrading of the existing interconnection Croatia/Slovenia

### **EXPECTED BENEFITS**

Security of Supply, Market integration (croatian market and the markets in CEE region), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (for Croatia and Slovenia), N-1 Regional, Back-up for renewables, It will be significantly increase the capacity of the interconnection of the Croatian and Slovenian gas transmission systems in this direction. It will increase the capacity along the route, provide enhanced access to Baumgarten and Italien gas market.,

COMMENTS ABOUT THE PROJECT FINANCING			
Public financing	Private financing	Multilateral financing	



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	2
FID		Total Pipeline Length (km)	+220.00
Construction		Total CS Power (MW)	
Commissioning	2027	Expected Load Factor	+0.90
Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Casalborsetti	No	entry	506.00	Hub Italia	Hub Croatia
	No	exit	506.00	Hub Croatia	Hub Italia

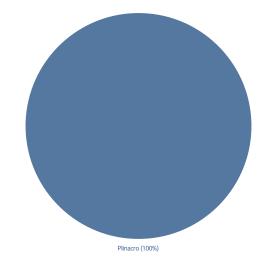
Covering the territory from the gas node Omišalj on the island of Krk (Croatian Gas Transmission System) via Adriatic Sea to Casal Borsetti (Italian Gas Transmission System)

### **EXPECTED BENEFITS**

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (For Croatia), N-1 Regional, Back-up for renewables, It will be new cross border transmission between Croatia and Italy; fits in the idea of Adriatic Gas Ring,

COMMENTS ABOUT THE PROJECT FINANCING				
Public financing	Private financing	Multilateral financing		

## LNG-N-082 Non-FID LNG Terminal SPONSORS GENERAL LINFORMATION FINANCING



Promoter	Plinacro Ltd
Operator	LNG Hrvatska d.o.o.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Not applicable
Considered Tariff Regime	Not applicable
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	
FID	
Construction	
Commissioning	2017
Last completed Phase :	Planned

TECHNICAL INFORMATION	
Regasification facility	LNG RV Croatia
Expected volume (bcm/y)	+2,00
Total CS Power (MW)	
Send-out (mcm/d)	+5,50
Ship size (m3)	
Reloading ability?	No

 PROJECTED CAPACITY INCREASES

 Interconnection
 Modelled
 Direction
 Capacity (GWh/d)
 From Zone
 To Zone

 LNG RV (Regasification Vessel) to Croatia
 Yes
 exit
 60,50
 LNG Terminals Croatia
 Hub Croatia

### **DESCRIPTION OF THE PROJECT**

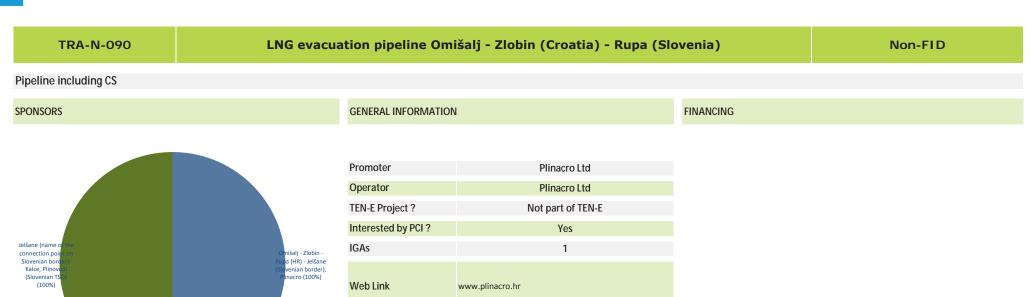
The LNG RV will be situated in Omišalj on the island of Krk, Republic of Croatia.

It is considered a part of the Energy Community Gas Ring, which is the concept of gasification for the entire region, proposed by the WB Study and accepted by the Gas Fora of the Energy Community.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (Croatia, markets of Central and Western Europe (Austria, Slovenia, Hungary, Slovakia, Check Republic) as well as the Balkan countries (Serbia, B&H, Montenegro...)), Diversification of sources, Diversification of routes, N-1 National (for Croatia), N-1 Regional, Back-up for renewables,

COMMENTS ABOUT THE PROJECT FINANCING			
Public financing	Private financing	Multilateral financing	



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	3
FID		Total Pipeline Length (km)	+103.60
Construction	2017	Total CS Power (MW)	
Commissioning	2018	Expected Load Factor	+0.90
Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Rupa (HR) / Jelšane (SI)	Yes	exit	506.00	Hub Croatia	Hub Slovenia

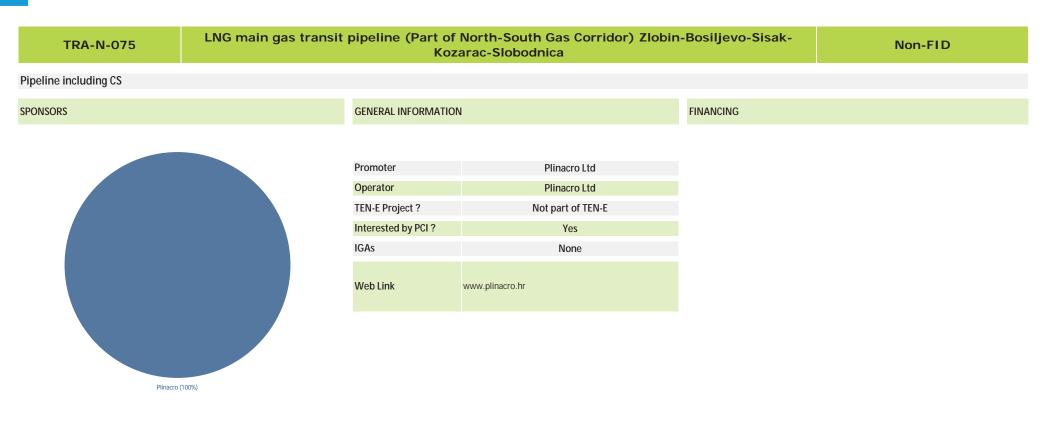
### DESCRIPTION OF THE PROJECT

The pipeline will cross the territory from the LNG terminal in Omišalj on the island of Krk to Rupa in Slovenia and will be linked to the Slovenian gas transmission system.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (croatian market, slovenian market and the markets in CEE region and Italy), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (for Croatia and Slovenia), N-1 Regional, Back-up for renewables, It will be significantly increase the capacity of the interconnection of the Croatian and Slovenian gas transmission systems in this direction. It will increase the capacity along the route, provide enhanced access to Baumgarten and Italien gas market. The project will significantly increase the flexibility of the system for Croatia.,

COMMENTS ABOUT THE PROJECT FINANCING				
Public financing	Private financing	Multilateral financing		



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	
FID		Total Pipeline Length (km)	
Construction	2017	Total CS Power (MW)	
Commissioning	2019	Expected Load Factor	
Last completed Phase :	Planned		

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	5
Total Pipeline Length (km)	+692.00
Total CS Power (MW)	
Expected Load Factor	+0.90

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

The pipeline will be construted on the territory of Croatia from the gas node Zlobin via Bosiljevo, Sisak, the gas node Kozarac to Slobodnica. It will be the "backbone" of the croatian gas system.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (Croatia, Hungary, Bosnia and Herzegovina, Serbia), Reverse Flows, Diversification of routes, N-1 National (for Croatia), Back-up for renewables, This main transit gas pipeline is the future strategic gas transmission connector of great significance and is an integral part of the North – South European Corridor designated the North-South (Baltic – Adriatic) Gas Connection. Its purpose is linking the Polish and Croatian LNG (Liquefied Natural Gas) solutions under the umbrella of the European Commission (EC). This project is foreseen under the Gas Forum administered by the Energy Community Secretariat, and although in Croatia, is regionally significant. The main transit gas pipeline Zlobin-Bosiljevo-Sisak-Kozarac-Slobodnica:

- is a continuation of the existing Hungarian – Croatian interconnection (gas pipeline Varosföld-Dravaszerdahely-Donji Miholjac-Slobodnica)

- will be connected to the future Ionian Adriatic Pipeline (IAP)

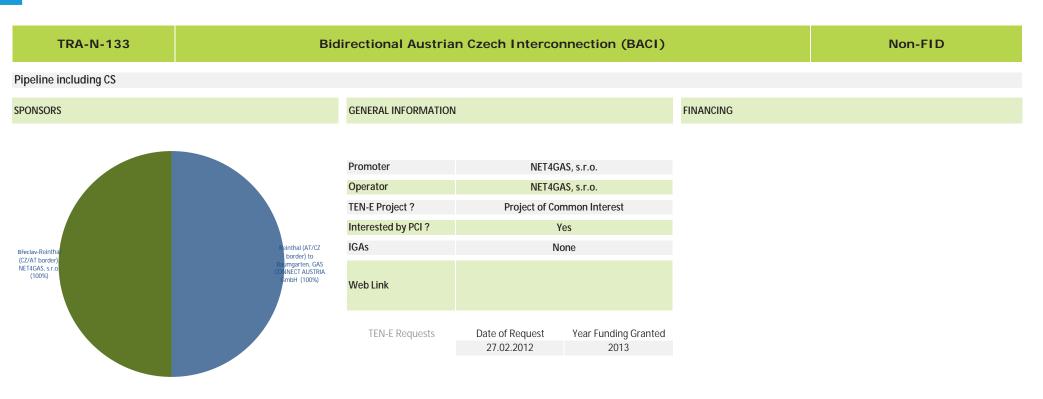
- will be connected to the future LNG terminal in Omišalj.,

### COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

### Czech Republic NET4GAS, s.r.o.

### CZECH REPUBLIC



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	+58,00
Applied for Exemption ?	No	Construction		Total CS Power (MW)	+24,00
Exemption granted ?	No	Commissioning	2019	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) From Zone To Zone Interconnection **Reinthal - Bidirectional Austrian-Czech Interconnector** Yes entry 254,00 Hub Austria **Hub Czech Republic** Yes exit 254,00 Hub Czech Republic Hub Austria

### DESCRIPTION OF THE PROJECT

The BACI will be a new infrastructure directly connecting the Austrian and Czech market. It will be connected to the existing Czech transmission system via CS Břeclav (NET4GAS, s.r.o.) and to the Austrian transmission system via Baumgarten (GAS CONNECT AUSTRIA GmbH). The BACI will enable capacity transmission for the first time between these two member states and it will facilitate better market integration and security of gas supply also for adjacent countries like Hungary, Poland, Germany, Italy, France, Slovenia, Croatia and Slovakia due to the creation of additional transportation opportunities. The project will also increase the overall flexibility of the Czech, Austrian and also Polish system by diversification of gas supply routes and by connecting UGS in the Czech Republic and Austria.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (CEE Region), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (CZ, AT), N-1 Regional (CEE Region), Back-up for renewables, Power-to-gas, Biogas, The Bidirectional Austrian-Czech interconnector (BACI) ensures transmission capacity between the two member states and facilitates 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. BACI enhances the market development due to access to underground gas storages both on the Austrian and Czech side and therefore enhances 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 new LNG regasification plants, Nord Stream, South Stream and unconventional gas sources.

With BACI the CEE region would become less vulnerable to a supply disruption through the Ukraine and Belarus route and therefore the region will have an increased security of supply.

DMMENTS ABOUT THE PROJECT FINANCING				
Public financing	Private financing	Multilateral financing		

### CZECH REPUBLIC



Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	1
FID		Total Pipeline Length (km)	+110,00
Construction		Total CS Power (MW)	+2,00
Commissioning	2022	Expected Load Factor	
Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Oberkappel (Net4Gas)	Yes	entry	55,00	Hub Austria	Hub Czech Republic
	Yes	exit	55,00	Hub Czech Republic	Hub Austria

### DESCRIPTION OF THE PROJECT

The project will interconnect the existing transmission pipelines in the Czech Republic with AT/DE border at Oberkappel. It will be the first interconnection between these states and it will be connected to Penta West as well as WAG pipeline (AT) and to the Southern branch of the N4G transmission system (CZ). Connection to Oberkappel is a part of the "5 Gas-market Link - 5GL" of the partners Tauerngasleitung GmbH (AT), Bayernets GmbH (DE), Plinovodi s.r.o. (SLO) and NET4GAS, s.r.o. (CZ). As part of the 5GL Project the Oberkappel project would be interconnected indirectly also to the TGL pipeline project, the storages 7Fields and Haidach (AT) as well as to the gas grid in Southern Germany at Haiming/Burghausen.

### EXPECTED BENEFITS

Security of Supply, Market integration (CEE Region), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (CZ, AT), N-1 Regional (CEE Region), Back-up for renewables, Power-to-gas, Biogas, • Increase the diversification of gas supply routes (i.e. especially Russian gas from Nord Stream and Norwegian sources to the Southern part of Europe; African, LNG and Caspian gas sources from the South / South-East to the North / North West part of Europe).

Therefore the project is also part of the 5GL Project together with TGL (AT) and Monacco (GER) as well as the planned interconnection to Slovenia that takes a comprehensive approach for completion the gas network in this region.

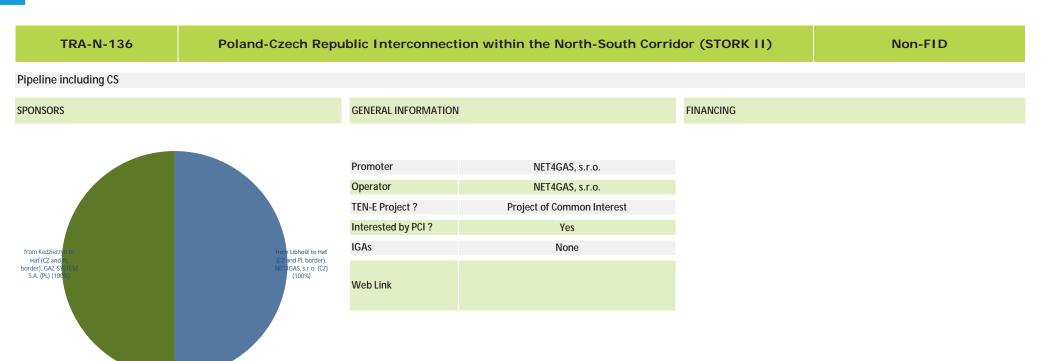
• Removing possible physical congestions on WAG and MEGAL-South.

• Increase of security of supply by enhancing the rate of interconnection of the existing transmission grids and connecting large UGS in Austria and Germany.

• Supporting the establishing of the Central-Eastern European Trading Region CEETR (AT, CZ and SK) in order to enable a functional gas market according to the targets of the European Gas Target Model.

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			

### CZECH REPUBLIC



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	+107,00
Applied for Exemption ?	No	Construction		Total CS Power (MW)	
Exemption granted ?	No	Commissioning	2019	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector CZ-PL	Yes	exit	220,50	Hub Czech Republic	Hub Poland
	Yes	entry	153,40	Hub Poland	Hub Czech Republic

### DESCRIPTION OF THE PROJECT

The STORK II interconnector pipeline will be part of the Czech and Polish transmission system and will increase cross-border capacity between these two countries by establishing a large transportation corridor that will allow flexible transport of gas in Central Europe in direction North-South. The development of the physical interconnection between Poland and Czech Republic will contribute to reinforcement of the effective operation of the gas transmission systems, efficient gas exchange between the markets, as well as increase of the security of supply not only for Poland and Czech Republic, but also for the CEE region by enabling the supply link with the European gas market (NCG, CEGH Baumgarten, Gas Pool) and global LNG market via the Terminal in Świnoujście.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (CEE Region (mainly CZ, PL)), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (CZ, PL), N-1 Regional (CEE Region), Back-up for renewables, Power-to-gas, Biogas, The project aims to increase the cross-border capacity between Poland and the Czech Republic by establishing a large transportation corridor that will allow for flexible transport of gas in Central Europe in direction North-South. Increase the security of gas supply and provide the overall flexibility for the CEE region and diversify the supply routes for the CEE region. Improve European gas grid interconnection.

Improve European gas gnu interconnection.

Increase the security and reliability of the cross-border gas transmission between the Czech Republic and Poland (fulfilment of N-1 rule in Poland).

Create a robust, well-functioning internal market in the Czech Republic and Poland and promote the competition.

Contribute to the creation of the integrated and competitive gas market in CEE region.

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			

## **5 GASCADE** Gastransport GmbH

TRA-N-324	Expansion of Nord Stream con	Non-FID		
Pipeline including CS				
SPONSORS	GENERAL INFO	RMATION	FINANCING	
	Promoter	GASCADE Gastransport GmbH		
	Operator	GASCADE Gastransport GmbH		
	TEN-E Project ?	Not part of TEN-E		
	Interested by P	CI ? No		
	IGAs	None		
	WebLink			

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	3
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	+440,00
Applied for Exemption ?	Not relevant	Construction		Total CS Power (MW)	+203,00
Exemption granted ?	Not relevant	Commissioning	2022	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Eynatten 1 (BE) // Lichtenbusch / Raeren (DE)	Yes	exit	374,00	Hub Germany (GASPOOL)	Hub Belgium (H-Zone)
Bunde (DE) / Oude Statenzijl (H) (NL) (GASCADE)	Yes	exit	234,00	Hub Germany (GASPOOL)	Hub Netherlands (VIP NL/Gaspool)

### DESCRIPTION OF THE PROJECT

Onshore project to create further gas capacities for North West Europe, in case one of an extention of the Nord Stream pipeline.

### **EXPECTED BENEFITS**

Security of Supply, Market integration, Diversification of sources,

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			

### GERMANY

TRA-N-323	Expansion of Nord Stream connection	Non-FID		
Pipeline including CS				
SPONSORS	GENERAL INFORMATIO	DN	FINANCING	
	Promoter	GASCADE Gastransport GmbH		
	Operator	NEL Gastransport GmbH		
	TEN-E Project ?	Not part of TEN-E		
	Interested by PCI ?	No		
	IGAs	None		
	Web Link			

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	
Applied for Exemption ?	Not relevant	Construction		Total CS Power (MW)	+171,00
Exemption granted ?	Not relevant	Commissioning	2022	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Greifswald / NEL	Yes	entry	857,00	Nord Stream (Russia Greifswald)	Hub Germany (GASPOOL)

Onshore project to create further gas capacities for North West Europe, in case one of an extention of the Nord Stream pipeline.

### EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources,

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			

### GERMANY

TRA-F-289		Installation of N	ord Stream onshore project	FID	
Pipeline including CS					
SPONSORS		GENERAL INFORMATION	I	FINANCING	
		Promoter	GASCADE Gastransport GmbH		
		Operator	GASCADE Gastransport GmbH		
	TEN-E Project ?	Not part of TEN-E			
		Interested by PCI ?	No		
		IGAs	None		
		Web Link			
GASCADE	(100%)				

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2013	# of Pipelines, nodes, CS	2
Considered Tariff Regime	Regulated	FID	2012	Total Pipeline Length (km)	+90,00
Applied for Exemption ?	Not relevant	Construction	2013 Q1	Total CS Power (MW)	+27,00
Exemption granted ?	Not relevant	Commissioning	2014/1	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Permitting		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone Hub Germany (GASPOOL) Hub Germany (NCG) Gernsheim Yes exit 105,60 Eynatten 1 (BE) // Lichtenbusch / Raeren (DE) 30,00 Hub Germany (GASPOOL) Hub Belgium (H-Zone) Yes exit

# DESCRIPTION OF THE PROJECT None EXPECTED BENEFITS Market integration (GASPOOL / NCG (Gernshelm)), Diversification of sources, COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Multilateral financing

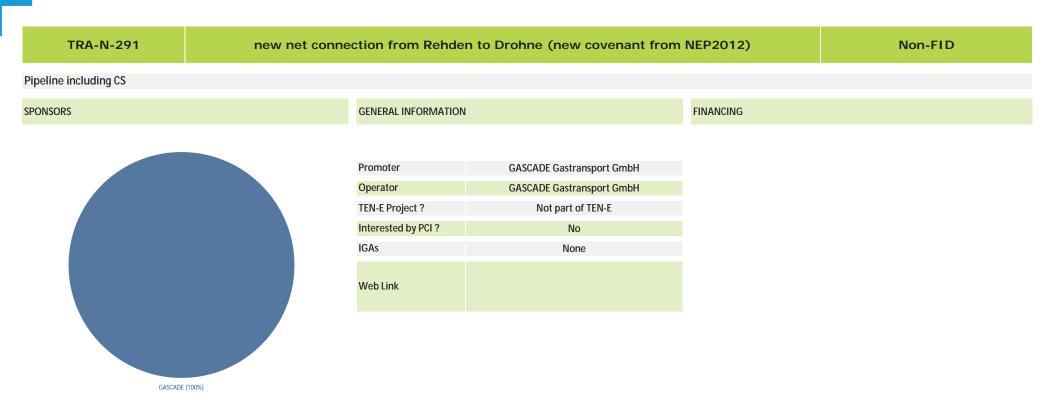
### GERMANY

TRA-F-292	Installing a reverse flow in Mallnow				FID
eline including CS					
NSORS		GENERAL INFORMATION		FINANCING	
		Promoter	GASCADE Gastransport GmbH		
		Operator	GASCADE Gastransport GmbH		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	No		
		IGAs	None		
		Web Link			
GASCADE (100%)					

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION
Considered TPA Regime	Regulated	End of permitting phase	2013	# of Pipelines, nodes, CS
Considered Tariff Regime	Regulated	FID	2013	Total Pipeline Length (km)
Applied for Exemption ?	Not relevant	Construction	2013	Total CS Power (MW)
Exemption granted ?	Not relevant	Commissioning	2014	Expected Load Factor
% Exemption in entry direction	0%	Last completed Phase :	Permitting	
% Exemption in exit direction	0%			

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Mallnow	Yes	exit	168,00	Hub Germany (GASPOOL)	Yamal (Poland)

DESCRIPTION OF THE PROJECT		
new metering station		
EXPECTED BENEFITS		
Reverse Flows, Diversification of sources,		
COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2016 Q4	# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	+26,00
Applied for Exemption ?	Not relevant	Construction	2017	Total CS Power (MW)	
Exemption granted ?	Not relevant	Commissioning	2018/1	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :			
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Drohne GASCADE / OGE	Yes	exit	144,00	Hub Germany (GASPOOL)	Hub Germany (NCG)

It is necessary to increase the capacity of the pipeline between the OGE Infrastructure (market area of NCG) and GASCADE (Market area of GASPOOL). This connection will increase the capacity by 6 GW to ensure the supply in south-west Germany.

### **EXPECTED BENEFITS**

Market integration (GASPOOL / NCG),

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

## **Gasunie Deutschland** Transport Services GmbH

### GERMANY



THIRD-PARTY ACCESS REGIME		SCHEDULE
Considered TPA Regime	Regulated	End of permitting phase
Considered Tariff Regime	Regulated	FID
Applied for Exemption ?	No	Construction
Exemption granted ?	Not relevant	Commissioning
% Exemption in entry direction	0%	Last completed Phase :
% Exemption in exit direction	0%	

	TECHNICAL INFORMATION	
	# of Pipelines, nodes, CS	1
	Total Pipeline Length (km)	+25,00
	Total CS Power (MW)	+30,00
2020/3	Expected Load Factor	+0,90
Planned		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Bunde (DE) / Oude Statenzijl (H) (NL) (GUD)	No	exit exit	676,00 169,00	Hub Germany (GASPOOL) Hub Germany (GASPOOL)	Hub Netherlands (VIP NL/Gaspool) Hub Netherlands (VIP NL/Gaspool)
	Yes	exit	338,00	Hub Germany (GASPOOL)	Hub Netherlands (VIP NL/Gaspool)

Expansion of transport capacity for transport of additional future Russian supply landing at Greifswald via (the extension of) the Nord Stream pipelines (now under study), to be further transported towards North West European markets partly via existing pipelines (western Germany, Netherlands, UK, Belgium, France).

### **EXPECTED BENEFITS**

Security of Supply,

COMMENTS ABOUT THE PROJECT FINANCING						
Public financing	Private financing	Multilateral financing				

TRA-F-231	Extension of existing gas transmission capacity in the direction to Denmark - 1. Step				FID
peline including CS					
ONSORS		GENERAL INFORMATIC	GENERAL INFORMATION		
		Promoter	Gasunie Deutschland Transport Services GmbH		
	Operator	Gasunie Deutschland Transport Services GmbH			
		TEN-E Project ?	Project of Common Interest		
		Interested by PCI ?	Yes		
		IGAs	None		
	Web Link	www.gasunie.de			
Gasunie Deu (100%					

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	
Applied for Exemption ?	Not relevant	Construction		Total CS Power (MW)	+15,00
Exemption granted ?	Not relevant	Commissioning	2014/4	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Construction		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Ellund (GUD)	Yes	exit	50,81	Hub Germany (GASPOOL)	Hub Denmark (Ellund)

# DESCRIPTION OF THE PROJECT None EXPECTED BENEFITS Security of Supply, Market integration, ) o Better connection of the depletion or Danish gas fields and market area GASPOOL in Germany): o Compensation of the depletion or Danish gas fields and better connection or gas hubs: COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing



THIRD-PARTY ACCESS REGIME		SCHEDULE
Considered TPA Regime	Regulated	End of permit
Considered Tariff Regime	Regulated	FID
Applied for Exemption ?	Not relevant	Construction
Exemption granted ?	Not relevant	Commissionin
% Exemption in entry direction	0%	Last complete
% Exemption in exit direction	0%	

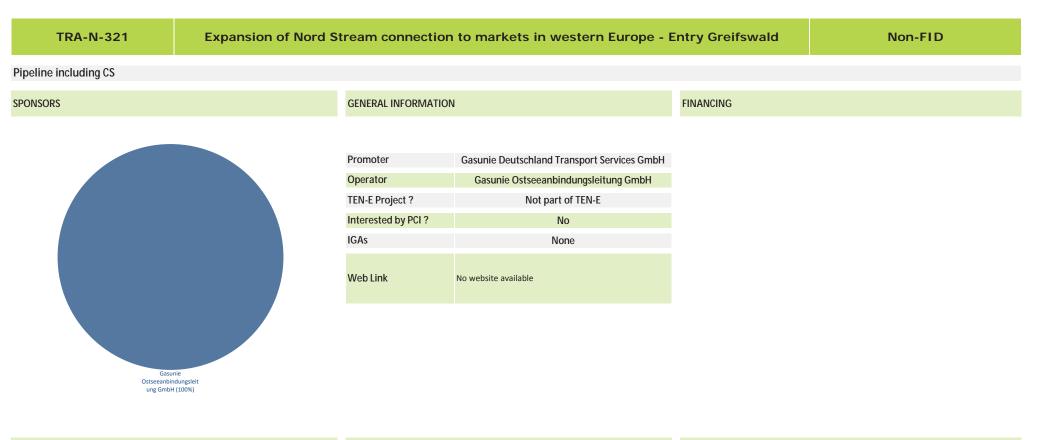
SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	2
FID		Total Pipeline Length (km)	+63,50
Construction		Total CS Power (MW)	+16,00
Commissioning	2015/2016	Expected Load Factor	
Last completed Phase :	Construction		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Ellund (GUD)	Yes	exit	40,56	Hub Germany (GASPOOL)	Hub Denmark (Ellund)

# DESCRIPTION OF THE PROJECT None EXPECTED BENEFITS Security of Supply, Market Integration, o Better connection of the gas hubs (TTF in the Netherlands and market ared GASPOOL in Germany); o Compensation of the depletion of Danish gas fields and better connection of gas hubs: o Connection of new storages to the GUD-grid. COMMENTS ABOUT THE PROJECT FINANCING Public Financing Private Financing Multilateral financing

# **Gasunie** Ostseeanbindungsleitung GmbH

## GERMANY



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%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	1
FID		Total Pipeline Length (km)	+100,00
Construction		Total CS Power (MW)	+60,00
Commissioning	2020/3	Expected Load Factor	+0,90
Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Greifswald / GOAL	No	entry	1.188,00	Nord Stream (Russia Greifswald)	Hub Germany (GASPOOL)
	Yes	entry	679,00	Nord Stream (Russia Greifswald)	Hub Germany (GASPOOL)
	No	entry	338,00	Nord Stream (Russia Greifswald)	Hub Germany (GASPOOL)

Expansion of transport capacity for transport of additional future Russian supply landing at Greifswald via (the extension of) the Nord Stream pipelines (now under study), to be further transported towards North West European markets partly via existing pipelines (western Germany, Netherlands, UK, Belgium, France).

## **EXPECTED BENEFITS**

Security of Supply,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

# 5 GRTgaz Deutschland GmbH

TRA-F-327		Gerr	nsheim-MIDAL		FID
Pipeline including CS					
SPONSORS		GENERAL INFORMATION		FINANCING	
GRTgaz De	Hutschland 296	Promoter Operator TEN-E Project ? Interested by PCI ? IGAs Web Link	GRTgaz Deutschland GRTgaz Deutschland GmbH Not part of TEN-E No None		
THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
		FID			

Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	Not relevant
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	1
FID		Total Pipeline Length (km)	
Construction		Total CS Power (MW)	+8,00
Commissioning	2013/4	Expected Load Factor	
Last completed Phase :	Construction		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Gernsheim	Yes	entry	106,60	Hub Germany (GASPOOL)	Hub Germany (NCG)

DESCRIPTION OF THE PROJECT					
None					
EXPECTED BENEFITS					
Security of Supply, Market integration, Reverse Flows, Diversification of sour	ces,				
COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			

# **5 Germany** Open Grid Europe GmbH

## GERMANY



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Not applicable
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION
End of permitting phase		Production facility
FID		Expected volume (bcm/y)
Construction		Total CS Power (MW)
Commissioning	2016/4	
Last completed Phase :	Planned	

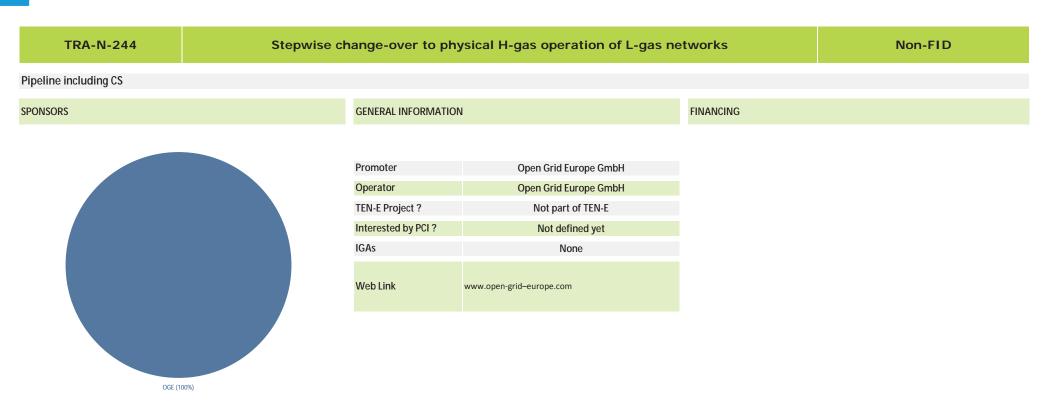
PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Identification of potential PtG locations in North-Western Germany and analysis of specific PtG concepts.

## **EXPECTED BENEFITS**

Security of Supply, Diversification of sources, Back-up for renewables, Power-to-gas, The European goal to reduce CO2 emissions and to increase the share of renewable energy sources as well as the German decision to shut off the nuclear power plants necessitate the medium and long term storage of electricity produced from fluctuating renewable sources. It is expected that PtG can provide an economic means to accomplish this goal. The study supports the PtG development by identifying suitable PtG locations and by analysing different PtG concepts.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION
Considered TPA Regime	Not applicable	End of permitting phase		# of Pipelines, nodes, CS
Considered Tariff Regime	Not applicable	FID	2020	Total Pipeline Length (km)
Applied for Exemption ?	Not relevant	Construction		Total CS Power (MW)
Exemption granted ?	Not relevant	Commissioning	2020	Expected Load Factor
% Exemption in entry direction	0%	Last completed Phase :	Planned	
% Exemption in exit direction	0%			

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Stepwise change-over to physical H-gas operation of L-gas networks (due to decreasing L-gas supply)

## EXPECTED BENEFITS

Security of Supply, Market integration, o Security of Supply

o Market Integration (Increase of competition)

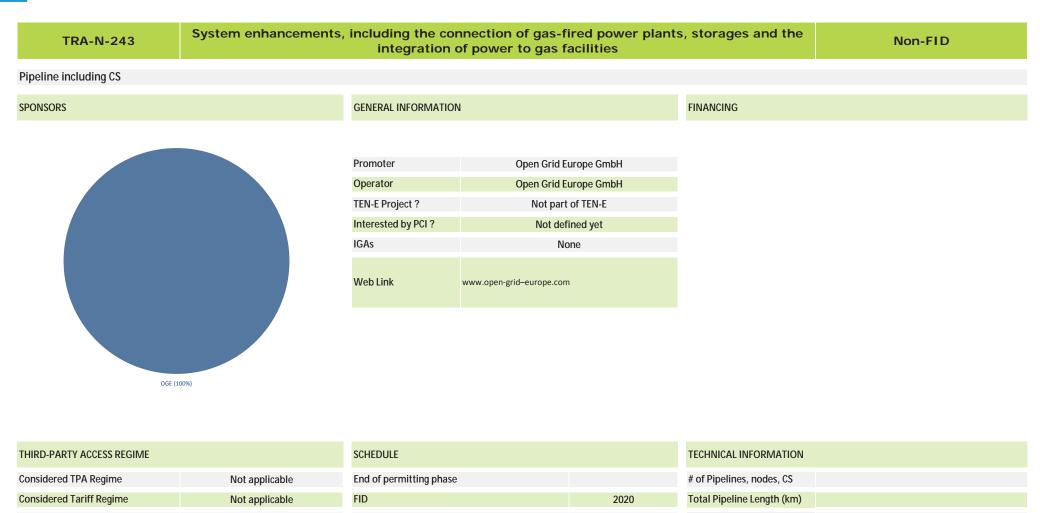
o A decline in availability of L-gas necessitates action.

Open Season 2008: The project prioritisation process has been carried out in a non-discriminatory manner based on criteria suggested by BNetzA. It takes into account the factors competition, security of supply, as well as network efficiency. Capacities were allotted to new market entrants. North-south and west-east de-bottlenecking strengthens security of supply.

Future projects: The overall economic benefit of a physical change-over from L (low calorific) to H-gas (high calorific) is higher than permanent conversion. Furthermore, enabling access of storage and gas fired power stations to the network necessitates investments. These measures also serve both market integration and security of supply.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

## GERMANY



Construction

Commissioning

Last completed Phase :

Applied for Exemption ?Not relevantExemption granted ?Not relevant% Exemption in entry direction0%% Exemption in exit direction0%

Total CS Power (MW)

**Expected Load Factor** 

2020

Planned

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

<font size=3>Extension of the gas grid infrastructure according to the outcomes of the German Network Development Plan in line with demand forecasts and the optimisation of the overall economy, including the expansion and reversion of compressor stations and a feasibility study on the integration of power to gas facilities into the transmission system.

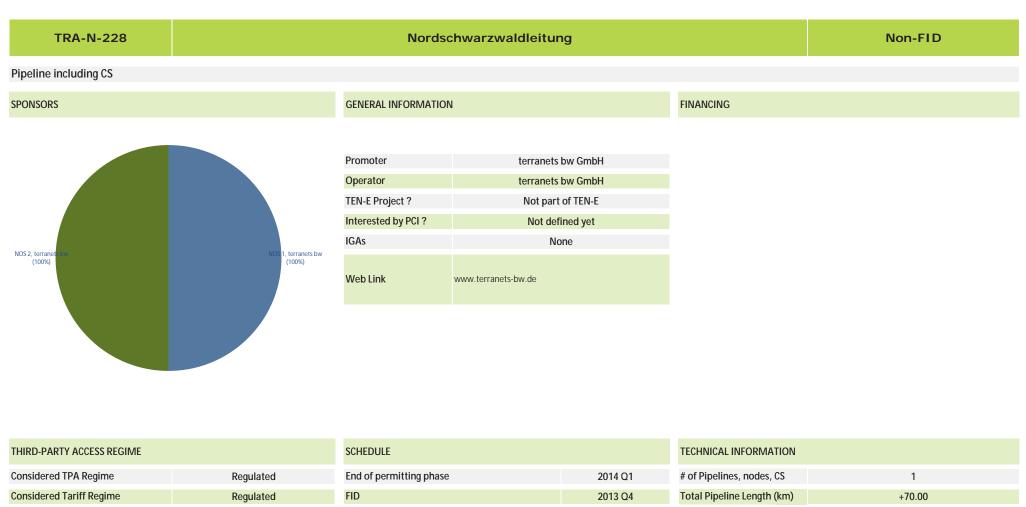
## **EXPECTED BENEFITS**

Security of Supply, Market integration, Back-up for renewables, Power-to-gas, Energy turnaround: stabilisation and better interlinkage with power grid, back-up for renewable energies,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

# **5 Germany** terranets bw GmbH

## GERMANY



Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase	2014 Q1	# of Pipelines, nodes, CS	1
FID	2013 Q4	Total Pipeline Length (km)	+70.00
Construction	2015 Q1	Total CS Power (MW)	
Commissioning	2015/4	Expected Load Factor	
Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Au am Rhein	No	entry	72.00	Hub Germany (NCG)	Hub Germany (NCG)

pipeline between Au am Rhein, coupling to TENP and Leonberg/Stuttgart

## **EXPECTED BENEFITS**

Security of Supply, Diversification of sources, Diversification of routes, Firm capacity can be provided to downstream distribution network operator. Security of Supply will be increased in south-west Germany.,

COMN	<b>MENTS ABOUT</b>	THE PROJECT FINANCING	
------	--------------------	-----------------------	--

 Public financing
 Private financing

 Multilateral financing

## **5 Germany** Storengy Deutschland GmbH

## GERMANY

UGS-F-317		FID			
torage Facility					
PONSORS		GENERAL INFORMATION		FINANCING	
		Promoter	Storengy		
		Operator	Storengy Deutschland GmbH		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	Yes		
		IGAs	None		
		Web Link			
	tschland )	SCHEDUIE			
HIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
HIRD-PARTY ACCESS REGIME	Negotiated (e.g. Exemption)	End of permitting phase		Storage facility	Peckensen Storage
HIRD-PARTY ACCESS REGIME considered TPA Regime considered Tariff Regime	Negotiated (e.g. Exemption) Negotiated (e.g. Exemption)	End of permitting phase		Storage facility Working volume (mcm)	+180.00
HIRD-PARTY ACCESS REGIME	Negotiated (e.g. Exemption)	End of permitting phase	2014/4	Storage facility	-

% Exemption in exit direction

0%

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Extension of the existing salt cavity gas storage.

## **EXPECTED BENEFITS**

Security of Supply, Market integration (Western and Central Europe), Apart from the benefits listed above, the projects will contribute to increased flexibility of the system which will have a positive impact on both market integration and security of supply. Thanks to its location (on the link between the NGC market area and the Gaspool market area), the project will have a positive expected influence on price convergence and arbitrage opportunities.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

UGS-N-005		Non-FID			
torage Facility					
PONSORS		GENERAL INFORMATION		FINANCING	
		Davasaka	01		
		Promoter Operator	Storengy Storengy Deutschland GmbH		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	Yes		
		IGAs	None		
		Web Link			
Storengy (1	Deutschland 00%)				
HIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
onsidered TPA Regime	Negotiated (e.g. Exemption)	End of permitting phase		Storage facility	Peckensen Storage
onsidered Tariff Regime	Negotiated (e.g. Exemption)	FID		Working volume (mcm)	+100.00

2017/4

Planned

Deliverability (mcm/d)

Commissioning

Last completed Phase :

Not relevant

0%

0%

Exemption granted ?

% Exemption in entry direction

% Exemption in exit direction

+3.00

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Extension of the existing salt cavity gas storage.

## **EXPECTED BENEFITS**

Security of Supply, Market integration (Western and Central Europe), Apart from the benefits listed above, the projects will contribute to increased flexibility of the system which will have a positive impact on both market integration and security of supply. Thanks to its location (on the link between the NGC market area and the Gaspool market area), the project will have a positive expected influence on price convergence and arbitrage opportunities.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



## HUNGARY

TRA-N-019		Coopel.coo	necting pipeline		Non-FID
		CSeper con			
ipeline including CS					
PONSORS		GENERAL INFORMATION		FINANCING	
F62 (1		PromoterIOperatorITEN-E Project ?IInterested by PCI ?IIGAsIWeb Linkwww	FGSZ Ltd FGSZ Ltd. Not part of TEN-E No None	Pro	ate Financing (100,00%)
HIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
HIRD-PARTY ACCESS REGIME	Regulated	SCHEDULE End of permitting phase	2016 Q1	TECHNICAL INFORMATION # of Pipelines, nodes, CS	1
	Regulated Regulated		2016 Q1 2014 Q3		1 +14,00
onsidered TPA Regime		End of permitting phase		# of Pipelines, nodes, CS	
onsidered TPA Regime onsidered Tariff Regime	Regulated	End of permitting phase	2014 Q3	# of Pipelines, nodes, CS Total Pipeline Length (km)	
onsidered TPA Regime onsidered Tariff Regime pplied for Exemption ?	Regulated No	End of permitting phase FID Construction	2014 Q3 2016 Q1	# of Pipelines, nodes, CS Total Pipeline Length (km) Total CS Power (MW)	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

New pipeline to Csepel

## **EXPECTED BENEFITS**

Back-up for renewables, o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hungarian transmission system by connecting to neighbouring systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will enhance the transmission systems security of supply position along with helping with further market integration.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

## HUNGARY

TRA-N-061		Non-FID			
Pipeline including CS					
PONSORS		GENERAL INFORMATION		FINANCING	
FGSZ Nat		PromoterIOperatorITEN-E Project ?IInterested by PCI ?IIGAsIWeb LinkI	FGSZ Ltd FGSZ Ltd. Not part of TEN-E Yes None	Bra	vate Financing. (100.00%)
THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2016 Q1	# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID	2014 Q4	Total Pipeline Length (km)	+11,00
Applied for Exemption ?	No	Construction	2016 Q1	Total CS Power (MW)	
Exemption granted ?	No	Commissioning	2017/3	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		

% Exemption in exit direction

0%

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone Hub Hungary (SK-HU Interconnector) Vecsés MGT / FGSZ Yes exit 51,00 Hub Hungary Yes 25,50 Hub Hungary (SK-HU Hub Hungary entry

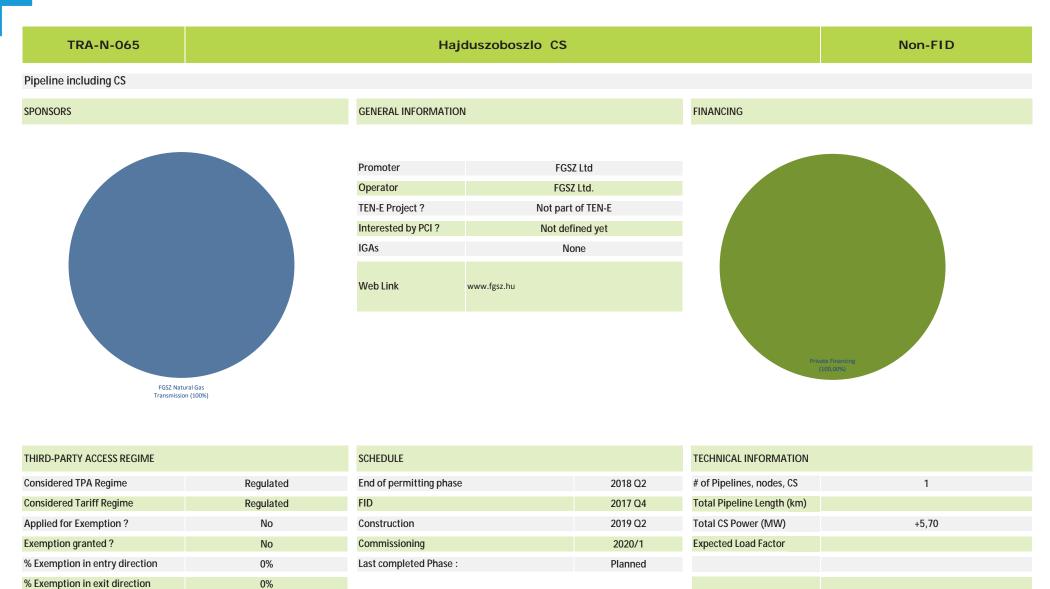
## DESCRIPTION OF THE PROJECT

New pipeline between Ercsi and Szazhalombatta nodes, DN800 PN63, 11 km

## **EXPECTED BENEFITS**

Security of Supply, Market integration (Security of Supply of Budapest region, New power plant supply at Budapest region, Increase capacity Sk>HU and HU>SK), Reverse Flows, Diversification of sources, o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hungarian transmission system by connecting to neighbouring systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will enhance the transmission systems security of supply position along with helping with further market integration.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



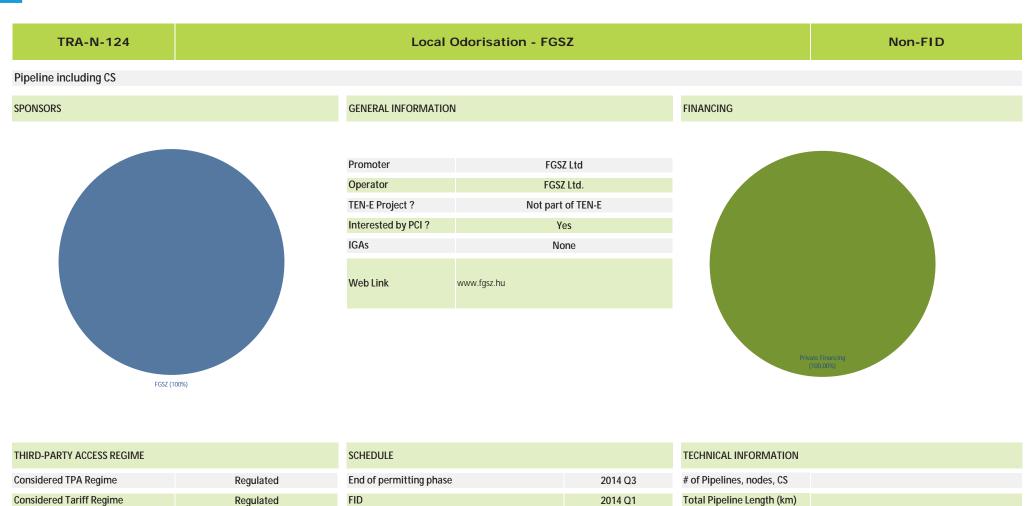
PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Equipment replacement

## **EXPECTED BENEFITS**

Security of Supply, o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hungarian transmission system by connecting to neighbouring systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will enhance the transmission systems security of supply position along with helping with further market integration. In particular, this project helps the reverse flow from Varösföld to Beregdaroc.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		<b>TECHNICAL I</b>
End of permitting phase	2014 Q3	# of Pipeline
FID	2014 Q1	Total Pipelin
Construction	2014 Q3	Total CS Pov
Commissioning	2015/3	Expected Loa
Last completed Phase :	Permitting	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	
Total Pipeline Length (km)	
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Elimination of central odorisation in the western part of Hungary, and establishment of local odorisation

## **EXPECTED BENEFITS**

Market integration (The overall flexibility of the system is enhanced through AT/HU border capacity.), o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hungarian transmission system by connecting to neighbouring systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will enhance the transmission systems security of supply position along with helping with further market integration.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

## HUNGARY

TRA-N-286	Romanian-Hungaria	n reverse flow Hungarian section	on	Non-FID
eline including CS				
NSORS	GENERAL INFORMATIC	N	FINANCING	
	Promoter	FGSZ Ltd		
	Operator	FGSZ Ltd.		
	TEN-E Project ?	Not part of TEN-E		
	Interested by PCI ?	Yes		
	IGAs	None		
	Web Link			
FGSZ Natural Gas Transmission (100%)			Private Fina (100,009	cing ()

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%
% Exemption in exit direction	0%

SCHEDULE		TEC
End of permitting phase	2014 Q1	# of
FID	2013 Q2	Tota
Construction	2014 Q1	Tota
Commissioning	2015/4	Expe
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	3
Total Pipeline Length (km)	
Total CS Power (MW)	+13,50
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Csanadpalota	Yes	entry	51,20	Hub Romania	Hub Hungary
	Yes	entry	12,60	Hub Romania	Hub Hungary
	No	exit	76,85	Hub Hungary	Hub Romania
	No	entry	76,85	Hub Romania	Hub Hungary

New compressor station at Csanádpalota.

## EXPECTED BENEFITS

Security of Supply, Market integration (RO and HU markets), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

## HUNGARY

			garian interconnector		
TRA-N-325			Non-FID		
ipeline including CS					
PONSORS		GENERAL INFORMATION		FINANCING	
		Promoter	FGSZ Ltd		
		Operator	FGSZ Ltd.		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	Yes		
		IGAs	None		
		Web Link www	v.fgsz.hu		
					vate Financing
	000()				(100,00%)
FGSZ (1	.00%)				
HIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
HIRD-PARTY ACCESS REGIME	Regulated	SCHEDULE End of permitting phase	2016 Q3	TECHNICAL INFORMATION # of Pipelines, nodes, CS	1
	Regulated Regulated		2016 Q3 2015 Q2		1 +41,00
onsidered TPA Regime		End of permitting phase		# of Pipelines, nodes, CS	
onsidered TPA Regime	Regulated	End of permitting phase FID	2015 Q2	# of Pipelines, nodes, CS Total Pipeline Length (km)	+41,00

% Exemption in exit direction

0%

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone Interconnector SI-HU Hub Slovenia Yes exit 45,25 Hub Hungary Yes 45,25 **Hub Slovenia** Hub Hungary entry

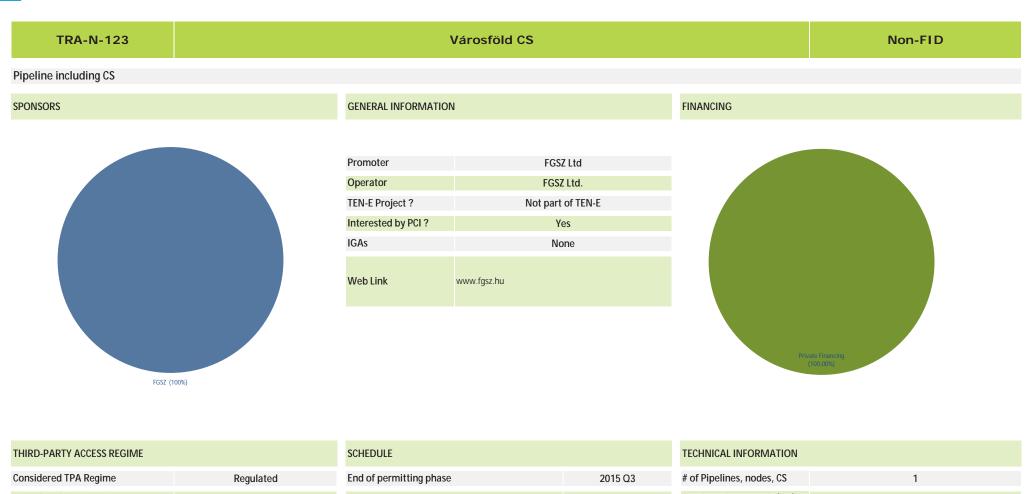
### **DESCRIPTION OF THE PROJECT**

Establishment a new pipeline connection between Hungary and Slovenia.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (Establish SL/HU border capacity, Security of Supply of Western Hungary and Slovenia), Reverse Flows, Diversification of sources, o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hungarian transmission system by connecting to neighbouring systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will enhance the transmission systems security of supply position along with helping with further market integration.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNIC
End of permitting phase	2015 Q3	# of Pipe
FID	2014 Q3	Total Pip
Construction	2016 Q1	Total CS I
Commissioning	2017/3	Expected
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total CS Power (MW)	+5,70
Expected Load Factor	

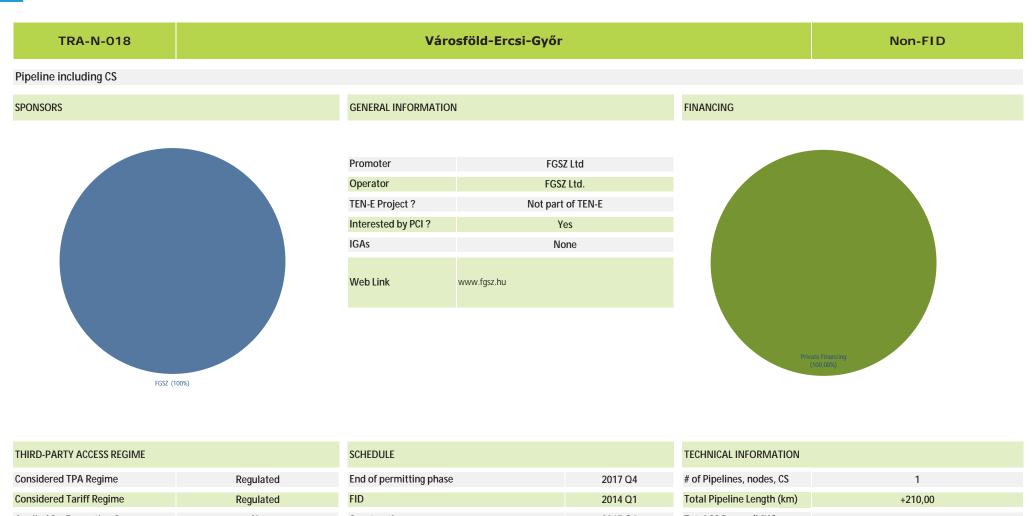
PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Mosonmagyarovar	Yes	exit	153,00	Hub Hungary	Hub Austria
	Yes	entry	25,00	Hub Austria	Hub Hungary

Compressor station extension, 5,7 MW

### **EXPECTED BENEFITS**

Market integration (Increase AT/HU border capacity, Security of Supply of Western Hungary, New power plant supply at Budapest region, Reverse filow HU>AT, Create capacity RO>AT), o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hungarian transmission system by connecting to neighbouring systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will enhance the transmission systems security of supply position along with helping with further market integration.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	2017 Q4
FID	2014 Q1
Construction	2015 Q1
Commissioning	2017/3
Last completed Phase :	Planned

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+210,00
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Vecsés MGT / FGSZ	Yes	exit	51,00	Hub Hungary	Hub Hungary (SK-HU Interconnector)
	Yes	entry	25,50	Hub Hungary (SK-HU	Hub Hungary
Mosonmagyarovar	Yes	exit	153,00	Hub Hungary	Hub Austria
	Yes	entry	25,00	Hub Austria	Hub Hungary

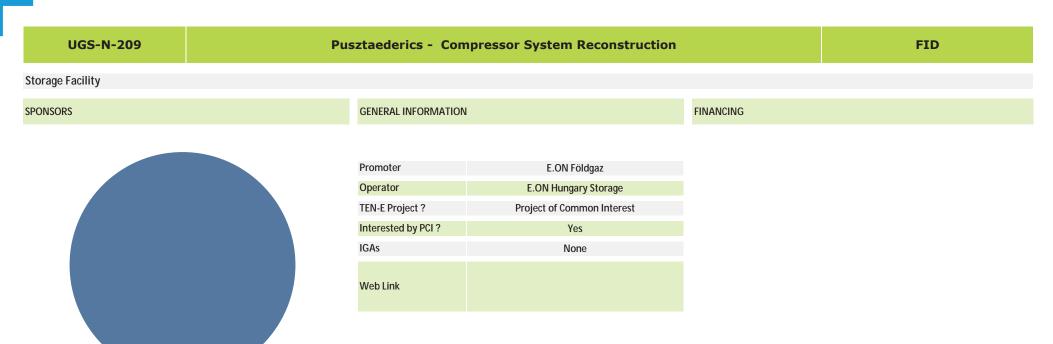
Pipeline between Városföld-Ercsi and Győr nodes, DN1000, PN100, 210 km. This project will enable the Mosonmagyarovar interconnection point to reach its full capacity of 153 GWh/d from Austria to Hungary. It will also enable the Mosonmagyarovar interconnection point to reach its full capacity of 153 GWh/d from Austria to Hungary. It will also enable the Mosonmagyarovar interconnection point to reach its full capacity of 153 GWh/d from Austria to Hungary. It will also enable the Mosonmagyarovar interconnection point to reach its full capacity of 153 GWh/d from Austria to Hungary. It will also enable the Mosonmagyarovar interconnection point to reach its full capacity of 153 GWh/d from Austria to Hungary. It will also enable the Mosonmagyarovar interconnection point to reach its full capacity of 153 GWh/d from Austria to Hungary. It will also enable the Mosonmagyarovar interconnection point to reach its full capacity of 153 GWh/d from Austria to Hungary. It will also enable the Mosonmagyarovar interconnection point to reach its full capacity of 153 GWh/d from Hungary to Austria as well.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (Increase AT/HU border capacity, Security of Supply of Western Hungary, new power plant supply, Reverse filow HU>AT, Increase capacity Sk>HU and HU>SK, Create capacity RO>AT), Reverse Flows, Diversification of sources, o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hungarian transmission system by connecting to neighbouring systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will enhance the transmission systems security of supply position along with helping with further market integration.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

## Hungarian Gas Storage



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

E.ON Hungary Storage (100%)

End of permitting phase2013 Q1Storage facilityPusztaedericsFID2012 Q4Working volume (mcm)+340,00Construction2013 Q2Total CS Power (MW)+2,50Commissioning2013Deliverability (mcm/d)+2,90	SCHEDULE		TECHNICAL INFORMATION	
Construction2013 Q2Total CS Power (MW)+2,50Commissioning2013Deliverability (mcm/d)+2,90	End of permitting phase	2013 Q1	Storage facility	Pusztaederics
Commissioning     2013     Deliverability (mcm/d)     +2,90	FID	2012 Q4	Working volume (mcm)	+340,00
	Construction	2013 Q2	Total CS Power (MW)	+2,50
	Commissioning	2013	Deliverability (mcm/d)	+2,90
Last completed Phase : FEED	Last completed Phase :	FEED		

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone UGS - HU - FGSZ/E.ON Hungary 27,50 Hub Hungary Storage Hungary Yes entry exit 31,90 Hub Hungary Yes Storage Hungary

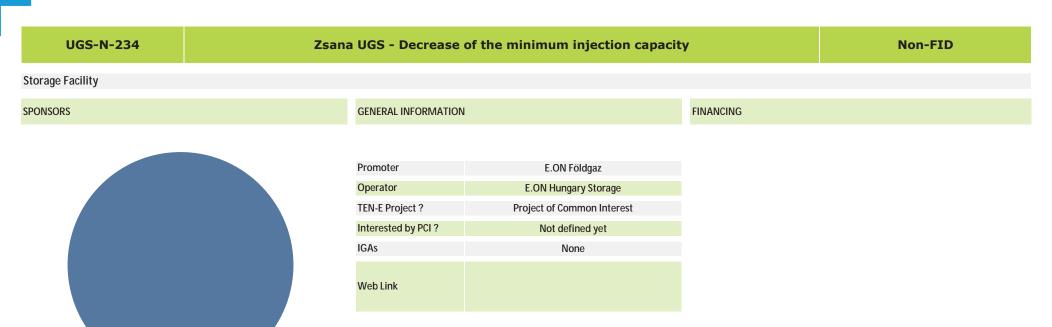
### DESCRIPTION OF THE PROJECT

To significantly increase the operational reliability and flexibility of storage services in the very crucial part of the North/South Corridor in the Region towards Slovenia, Croatia and Serbia. Also to generate ~20% increased daily injection peak (0,5 Mm3/d) and off season operation.

### **EXPECTED BENEFITS**

Market integration, Diversification of routes,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

E.ON Hungary Storage (100%)

SCHEDULE		TECHNICAL INFORMATION		
End of permitting phase	2016 Q1	Storage facility	Zsana	
FID	2015 Q4	Working volume (mcm)	+2.140,00	
Construction	2016 Q3	Total CS Power (MW)	+17,20	
Commissioning	2016/4	Deliverability (mcm/d)	+28,00	
Last completed Phase :	Market test			

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - HU - FGSZ/E.ON Hungary	Yes	entry	189,20	Hub Hungary	Storage Hungary
	Yes	exit	308,00	Storage Hungary	Hub Hungary

Flexible operation down to 0,24 Mm3/d and beyond the existing 17,0 Mm3/d.

### EXPECTED BENEFITS

Market integration, Diversification of routes,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

### **6** Hungary Magyar Gaz Tranzit Zrt.

### TRA-F-195 **AGRI Pipeline - Hungarian section** FID **Pipeline including CS** GENERAL INFORMATION FINANCING **SPONSORS** Magyar Gaz Tranzit Zrt. Promoter Operator MGT Hungarian Gas Transit Ltd. TEN-E Project ? Not part of TEN-E Interested by PCI ? Not defined yet IGAs 1 Web Link

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Not applicable
Considered Tariff Regime	Not applicable
Applied for Exemption ?	No
Exemption granted ?	no
% Exemption in entry direction	0%
% Exemption in exit direction	0%

Hungarian section, MVM,SOCAR,GOGC,R OMGAZ (100%)

SCHEDULE		TECHNICAL INFORMATION
End of permitting phase		# of Pipelines, nodes, CS 1
FID		Total Pipeline Length (km)
Construction		Total CS Power (MW)
Commissioning	2023*	Expected Load Factor
Last completed Phase :		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

The project is in feassibility phase

### EXPECTED BENEFITS

|--|--|

### Public financing

Private financing

Multilateral financing



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	regulated
Considered Tariff Regime	regulated
Applied for Exemption ?	No
Exemption granted ?	no
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase	2014	# of Pipelines, nodes, CS	2
FID		Total Pipeline Length (km)	+110,00
Construction	2013	Total CS Power (MW)	
Commissioning	2014/1	Expected Load Factor	
Last completed Phase :	Construction		

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone Balassagyarmat 127,40 Hub Hungary (SK-HU Interconnector) Yes entry Hub Slovakia exit 50,90 Hub Hungary (SK-HU Hub Slovakia Yes

### DESCRIPTION OF THE PROJECT

Hungarian section 92 km. Slovak section 18 km. DN 800, Pn 75 bar. Bidirectional transportation possibility.

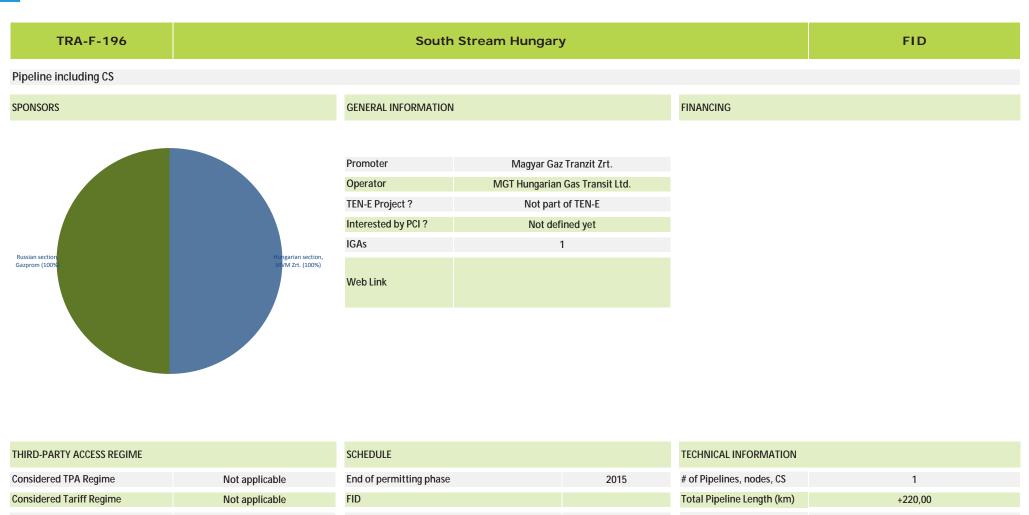
### **EXPECTED BENEFITS**

COMMENTS ABOU	JT THE PROJECT	FINANCING

### Public financing

Private financing

Multilateral financing



Considered Tariff Regime	Not applicable
Applied for Exemption ?	Not relevant
Exemption granted ?	Not relevant
% Exemption in entry direction	50%
% Exemption in exit direction	45%

SCHEDULE		TECHNICAL INFORMATION
End of permitting phase	2015	# of Pipelines, nodes, CS
FID		Total Pipeline Length (km)
Construction	2014	Total CS Power (MW)
Commissioning	2015/1	Expected Load Factor
Last completed Phase :		

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+220,00
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
South Stream (Bata, Nagykanizsa) (HU)	Yes	entry	224,00	South Stream (Russia)	Hub Hungary

Hungarian section 220 km. DN1400/1200, Pn 90 bar.

### EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING

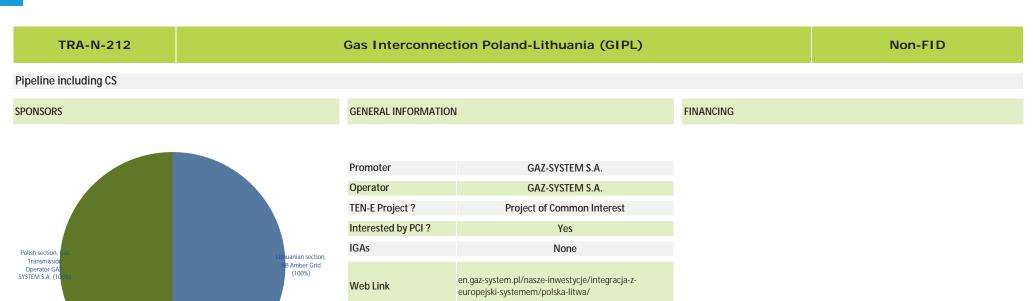
### Public financing

Private financing

Multilateral financing



### Poland Gas Transmission Operator GAZ-SYSTEM S.A.



Date of Request 30.04.2010

TEN-E Requests

THIRD-PARTY ACCESS REGIME		SC
Considered TPA Regime	Regulated	En
Considered Tariff Regime	Regulated	FII
Applied for Exemption ?	No	Co
Exemption granted ?	Not relevant	Co
% Exemption in entry direction	0%	La
% Exemption in exit direction	0%	

SCHEDULE		TECHNICAL INFO
End of permitting phase		# of Pipelines, n
FID	2015	Total Pipeline Le
Construction		Total CS Power
Commissioning	2018	Expected Load F
Last completed Phase :	Planned	

Year Funding Granted

2012

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+534,00
Total CS Power (MW)	+16,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector PL-LT	No	exit	63,70	Hub Poland	Hub Lithuania
	Yes	entry	29,00	Hub Lithuania	Hub Poland
	Yes	exit	68,00	Hub Poland	Hub Lithuania

GIPL aims to connect the gas transmission systems in Poland and Lithuania and, consiquently, enable the integration of the isolated gas markets in the Baltic States (and Finland) with the Polish and EU gas markets contributing to the creation of the regional gas market, enhancing competition and the security of gas supply. The project will also provide an access to the global LNG market for the Baltic States (via the LNG terminal in Świnoujście). The construction of GIPL, except the above benefits for security and diversification of gas supplies in the Baltic region, will allow to connect the Baltic States with the CEE countries, thus providing strategic link between the BEMIP and North-South priority corridors in this part of Europe.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (market areas in the Baltic States and Central-Eastern Europe), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Lithuania and possibly Latvia, Estonia), N-1 Regional (the Baltic Sea region), Back-up for renewables, The very aim of GIPL is the integration of the isolated gas markets of the Baltic States into the EU gas grid, by introducing the alternative gas supply route to the Baltic States. This interconnection will diversify the gas supply sources, increase the security of supply and will serve for the enhancement of competition in the gas market of 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. In the long-term perspective, it may also be used to import shale-gas from Poland, if the

production reaches into large scale level. For the Polish market players, GIPL will provide the opportunity of using Latvian Incukalns UGS. Also through GIPL, gas could be supplied to currently non-gasified areas in Poland and Lithuania.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
TEN-E (obtained for studies), support from other EU funds is expected		

### LNG terminal in Świnoujście LNG-F-246 FID LNG Terminal GENERAL INFORMATION FINANCING **SPONSORS** Promoter GAZ-SYSTEM S.A. Operator GAZ-SYSTEM S.A. TEN-E Project ? Priority Project Interested by PCI ? No IGAs None en.gaz-system.pl/terminal-Ing/ Web Link Gas Transmission Operator GAZ-SYSTEM S.A. (100%)

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%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	
FID	2010
Construction	
Commissioning	2014
Last completed Phase :	FID

TECHNICAL INFORMATION	
Regasification facility	LNG terminal in Świnoujście
Expected volume (bcm/y)	+5,00
Total CS Power (MW)	+320.000,00
Send-out (mcm/d)	+13,68
Ship size (m3)	216.000,00
Reloading ability?	No

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Swinoujscie	Yes	entry	150,48	LNG Terminals Poland	Hub Poland

### DESCRIPTION OF THE PROJECT

The LNG terminal in Śwnoujście will be the first LNG terminal in the Baltic Sea region. It will come on stream in 2014 with annual re-gasification capacity of 5 bcm/y. In the following years, depending on the increase of demand for gas, it will be possible to increase the capacity up to 7,5 bcm/y, without the need to increase the area on which the terminal will be constructed. The terminal in Świnoujście will consist of two storage tanks, each with the capacity of 160 tcm. The LNG terminal in Świnoujście will offer its regasification capacities not only to gas consumers in Poland, but also in the Baltic Sea region (supplies to be directed via Gas Interconnection Poland-Lithuania and/or LNG ships) and in Central-Eastern Europe (supplies within the North-South Gas Interconnections).

### **EXPECTED BENEFITS**

Security of Supply, Diversification of sources, Diversification of routes, N-1 National (Poland and possibly Lithuania, Latvia, Estonia, Denmark, Slovakia and Hungary), N-1 Regional (Baltic Sea region, Central-Eastern Europe), Back-up for renewables, The LNG terminal in Swinoujscie will have an impact on:

increasing security of supply in the Baltic Sea and CEE regions by diversifying supply routes, sources (the first new physical source of supply for both regions) and counterparts (access to global LNG market); creating well-interconnected gas infrastructure in the Baltic Sea and CEE regions;

eliminating the energy islands, as the terminal in Swinoujscie may play the role of regional LNG terminal for the Baltic States and Finland (transport of gas via Gas Interconnection Poland-Lithuania or transport by LNG vessels); enhancing competition on regional markets;

promoting natural gas as a reliable, competitive and environmentally-friendly source of energy e.g. in the transport sector (maritime transport);

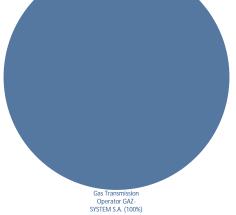
creating a physical hub in Swinoujscie and/or a virtual hub in Poland;

establishing adequate technical conditions necessary to cover the forecasted growth of the gas demand in Poland based on the development of the power generation sector and possible leverage for market coupling potential in the Baltic Sea region and in Central-Eastern Europe.

The LNG terminal in Świnoujście contributes to North-South gas interconnections in Central Eastern and South Eastern Europe, as the supplies from Świnoujście may be directed through upgraded transmission system in Poland (the North-South Corridor in Poland), PL-CZ and PL-SK interconnections towards the South, to other CEE countries.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
EEPR, ERDF (Operational Programme Infrastructure and Environment), TEN-	Equity, commercial banks	EIB, EBRD

## TRA-F-326 Physical reverse flow on the metering station in Mallnow FID Pipeline including CS SPONSORS GENERAL INFORMATION FINANCING Promoter GAZ-SYSTEM S.A. Operator GAZ-SYSTEM S.A. Operator GAZ-SYSTEM S.A. (ISO) TEN-E Project ? Not part of TEN-E



Promoter	GAZ-SYSTEM S.A.			
Operator	GAZ-SYSTEM S.A. (ISO)			
TEN-E Project ?	Not part of TEN-E			
Interested by PCI ?	No			
IGAs	None			
Web Link				

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%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION
End of permitting phase		# of Pipelines, nodes, CS
FID		Total Pipeline Length (km)
Construction	2013	Total CS Power (MW)
Commissioning	2013	Expected Load Factor
Last completed Phase :	Construction	

 PROJECTED CAPACITY INCREASES

 Interconnection
 Modelled
 Direction
 Capacity (GWh/d)
 From Zone
 To Zone

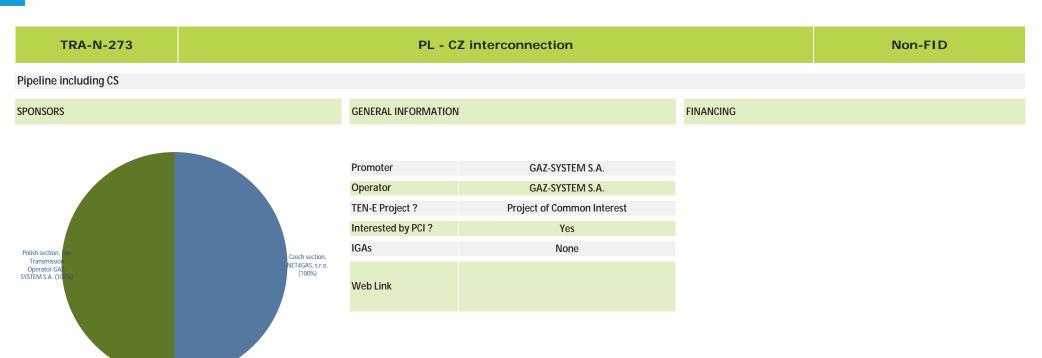
 Mallnow
 Yes
 entry
 168,00
 Hub Germany (GASPOOL)
 Yamal (Poland)

### DESCRIPTION OF THE PROJECT

The project aims to introduce physical reverse flow on the Yamal-Europe pipeline (flow in the direction from DE to PL). The project increases security of supply to Poland by diversifying supply sources and routes. Implementation of the project facilitates the access of the network users in Poland to the gas market in Germany.

### **EXPECTED BENEFITS**

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID	2017	Total Pipeline Length (km)	+107,60
Applied for Exemption ?	No	Construction		Total CS Power (MW)	+16,00
Exemption granted ?	Not relevant	Commissioning	2019	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector CZ-PL	No	entry	105,40	Hub Czech Republic	Hub Poland
	Yes	entry	195,90	Hub Czech Republic	Hub Poland
	Yes	exit	150,60	Hub Poland	Hub Czech Republic

### DESCRIPTION OF THE PROJECT

The project aims to increase the cross-border capacity between Poland and the Czech Republic by establishing a large transportation corridor that will allow for flexible transport of gas in Central-Eastern Europe within the North-South corridor.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (market areas in Central-Eastern Europe), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland, possibly Slovakia and Hungary), N-1 Regional (Central-Eastern Europe), Back-up for renewables, Implementation of PL-CZ interconnection will have an impact on:

increasing the security of gas supply and providing the overall flexibility for the CEE region and diversifying the supply routes for the CEE region;

improving European gas grid interconnection;

increasing the security and reliability of the cross-border gas transmission between the Czech Republic and Poland (fulfilment of N-1 rule in Poland);

creating a robust, well-functioning internal market in the Czech Republic and Poland and promoting the competition;

contributing to the creation of an integrated and competitive gas market in the CEE region;

establishing adequate technical conditions necessary to cover the forecasted growth of the gas demand in Poland based on the development of the power generation sector and possible leverage for market coupling potential in Central-Eastern Europe.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
Support from EU funds is expected		

### TRA-N-271

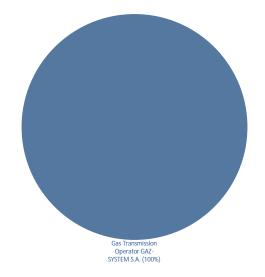
### PL - DK interconnection (Baltic Pipe)

GENERAL INFORMATION

Non-FID

### Pipeline including CS

SPONSORS



Promoter	GAZ-SYSTEM S.A.				
Operator	GAZ-SYSTEM S.A.				
TEN-E Project ?	Project of Con	nmon Interest			
Interested by PCI ?	Yes				
IGAs	None				
Web Link	en.gaz-system.pl/nasze-inwestycje/integracja-z- europejski-systemem/baltyckibaltic-pipe/				
TEN-E Requests	Date of Request 30.06.2008 24.04.2009	Year Funding Granted 2009 2010			

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%
% Exemption in exit direction	0%

SCHEDULE		٦
End of permitting phase		Ŧ
FID	2015	
Construction		
Commissioning	2020	E
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+324,00
Total CS Power (MW)	
Expected Load Factor	

FINANCING

PROJECTED CAPACITY INCREASES Interconnection Modelled Direction Capacity (GWh/d) From Zone To Zone Interconnector PL-DK Yes entry 90,40 Hub Denmark Hub Poland Yes exit 90,40 **Hub Poland** Hub Denmark

### DESCRIPTION OF THE PROJECT

Baltic Pipe aims to connect the gas transmission systems in Poland and Denmark and thus cover the higher import needs of Danish and Swedish markets originating from declining production in the Danish part of the North Sea. The project will also cover the forecasted growth of the gas demand in Poland based on the development of the power generation sector and possible leverage for market coupling potential in the Baltic States and Central-Eastern Europe.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (market areas in the Baltic Sea region and Central-Eastern Europe), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland, Denmark), N-1 Regional (the Baltic Sea region), Back-up for renewables, Baltic Pipe will have a significant impact on:

increasing security of supply in the Baltic Sea region by diversifying supply routes, sources and counterparts;

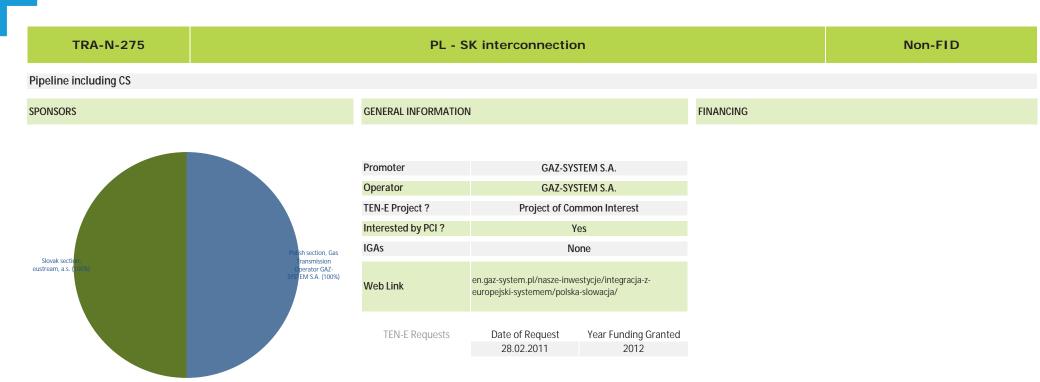
creating well-interconnected gas infrastructure in the Baltic Sea region;

enhancing competition on the regional markets;

promoting natural gas as a reliable, competitive and environmentally-friendly source of energy e.g. in the power generation sector.

The Baltic Pipe project also contributes to North-South gas interconnections in Central Eastern and South Eastern Europe, as the project which will allow to transport gas from North Sea deposits to the CEE countries, namely to the Czech Republic and Slovakia (via the North-South corridor in Poland, PL-CZ and PL-SK interconnections).,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
TEN-E (obtained), support from other EU funds is expected		



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID	2017	Total Pipeline Length (km)	+164,00
Applied for Exemption ?	No	Construction		Total CS Power (MW)	+29,10
Exemption granted ?	Not relevant	Commissioning	2019	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone	
Interconnector PL - SK	Yes	exit	141,60	Hub Poland	Hub Slovakia	
	Yes	entry	129,50	Hub Slovakia	Hub Poland	
	Yes	entry	171,70	Hub Slovakia	Hub Poland	

### DESCRIPTION OF THE PROJECT

The main goal of the project is to create an important part of the North-South gas interconnections in Central-Eastern Europe by implementing a missing interconnection between the transmission systems in Poland and Slovakia and, thus, increase the security of gas supplies in Central-Eastern Europe through the diversification of supply sources and routes, as well as integration of Sub-Carpathian Market Area and enhancing market functionality.

### EXPECTED BENEFITS

Security of Supply, Market integration (market areas in Central-Eastern Europe), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland, Slovakia and possibly Hungary), N-1 Regional (Central-Eastern Europe), Back-up for renewables, Implementation of PL-SK interconnection will have an impact on:

creating the cross-border capacity between Poland and Slovakia by establishing a large transportation corridor that will allow for flexible transport of gas in Central Europe within the North-South axis;

increasing the security of gas supply and diversification of supply routes for the CEE region;

improve European gas grid interconnection;

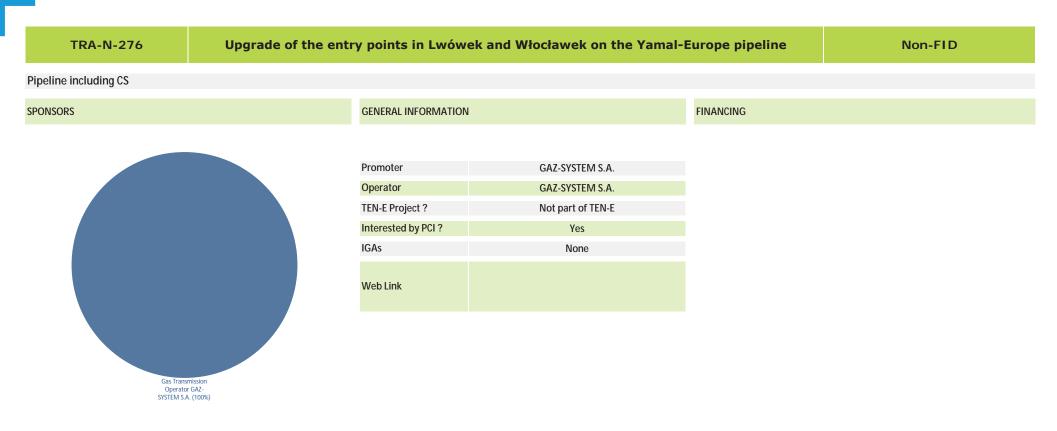
AGNANAENTS ADOLIT THE DOGLEGT FINANOING

increasing the security and reliability of the cross-border gas transmission between Slovakia and Poland (contribution to N-1 standard in Poland and Slovakia);

creating a robust, well-functioning internal market in Slovakia and Poland and promote the competition;

establishing adequate technical conditions necessary to cover the forecasted growth of the gas demand in Poland based on the development of the power generation sector and possible leverage for market coupling potential in Central-Eastern Europe.,

CONTINIENTS ADOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
TENE (obtained), support from EU funds is expected		



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%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION
End of permitting phase		# of Pipelines, nodes, CS 2
FID		Total Pipeline Length (km)
Construction		Total CS Power (MW)
Commissioning	2015	Expected Load Factor
Last completed Phase :	Planned	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Wloclawek	Yes	entry	183,00	Yamal (Poland)	Hub Poland
Lwowek	Yes	entry	36,60	Yamal (Poland)	Hub Poland

### DESCRIPTION OF THE PROJECT

The main objective of the project is to upgrade the capacity of the entry points in Lwówek and Wloclawek on the Yamal-Europe pipeline. The project will enable to benefit from the economies of scale, as relatively low investment costs will significantly increase the possibility of gas deliveries via physical reverse flow (currently virtual reverse flow is available only) on the Yamal-Europe pipeline to entry into the transmission system in Poland and later on in the Baltic States (via Gas Interconnection Poland-Lithuania) and other CEE countries (via the North-South Gas Interconnections). This will in turn enhance the access of gas markets players in these countries to well-developed market area in Germany.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (integration of market areas in the Baltic Sea region and Central-Eastern Europe with Western Europe (GASPOOL and NetConnect in Germany)), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland and possibly Lithuania, Latvia, Estonia, Slovakia, Hungary), N-1 Regional (the Baltic Sea region, Central-Eastern Europe), Back-up for renewables, The upgrade of the capacity of the entry points in Lwowek and Wloclawek on the Yamal-Europe pipeline will have an impact on:

enhancing competition in Poland and other countires in the Baltic and CEE regions by significantly facilitating the access to the Western European gas markets (in particular GASPOOL and NetConnect in Germany);

increasing security of supply in the Baltic Sea and CEE regions by diversifying supply routes and counterparts (the access to the Western European gas markets);

creating well-interconnected gas infrastructure between Western Europe (Germany), the Baltic Sea and CEE regions;

contributing to elimination of the energy islands, as the project may constitute a source of gas supplies for the Baltic States and Finland (via Gas Interconnection Poland-Lithuania);

establishing adequate technical conditions necessary to cover the forecasted growth of the gas demand in Poland based on the development of the power generation sector and possible leverage for market coupling potential in the Baltic Sea region and in Central-Eastern Europe.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
Support from EU funds is expected		

### TRA-F-248

### Upgrade of gas infrastructure in northern and central Poland

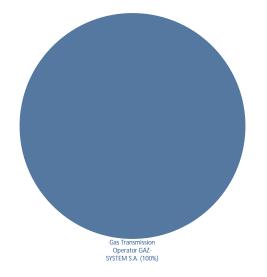
GENERAL INFORMATION

FID

FINANCING

### Pipeline including CS

SPONSORS



Promoter	GAZ-SYSTEM S.A.	
Operator	GAZ-SYSTEM S.A.	
TEN-E Project ?	Not part of TEN-E	
Interested by PCI ?	No	
IGAs	None	
Web Link	en.gaz-system.pl/nasze-inwestycje/krajowy-system- przesylowy/	

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%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	
FID	2007
Construction	
Commissioning	2014
Last completed Phase :	FID

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	5
Total Pipeline Length (km)	+875,00
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

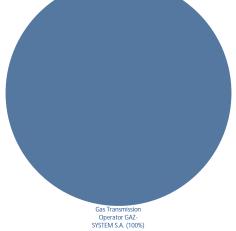
The project consists of the internal pipelines that are currently being constructed in northern and central Poland with the aim to enhance functionality of the transmission system in Poland and, thus, provide adequate technical conditions to distribute natural gas supplied to the LNG terminal in Świnoujście. The project is strictly linked to the development of gas infrastructure within the North-South gas interconnections in Central Eastern and South Eastern Europe. Implementation of the internal pipelines will contribute to increasing the security of supply sources, routes and counterparts, as well as to providing the overall flexibility for the gas market in Poland and the whole CEE region.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (market areas in the Central-Eastern Europe and possibly in the Baltic States), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland and possibly Slovakia, Hungary, Lithuania, Latvia and Estonia), N-1 Regional (Central-Eastern Europe, Baltic Sea region), Back-up for renewables,

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			
EEPR, ERDF (Operational Programme Infrastructure and Environment)	Equity, commercial banks				

# LNG-N-272 Upgrade of the LNG terminal in Świnoujście Non-FID LNG Terminal SPONSORS GENERAL INFORMATION FINANCING Promoter GAZ-SYSTEM S.A. Operator GAZ-SYSTEM S.A. TEN-E Project ? Not part of TEN-E Not part of TEN-E



Promoter	GAZ-SYSTEM S.A.		
Operator	GAZ-SYSTEM S.A.		
TEN-E Project ?	Not part of TEN-E		
Interested by PCI ?	Yes		
IGAs	None		
Web Link	en.gaz-system.pl/terminal-Ing/		

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%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	
FID	2014
Construction	
Commissioning	2020
Last completed Phase :	Planned

\_ \_ \_ \_ \_ \_ \_

TECHNICAL INFORMATION	
Regasification facility	LNG terminal in Świnoujście
Expected volume (bcm/y)	+2,50
Total CS Power (MW)	+160.000,00
Send-out (mcm/d)	+6,84
Ship size (m3)	216.000,00
Reloading ability ?	Yes

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Swinoujscie	Yes	entry	75,24	LNG Terminals Poland	Hub Poland

### DESCRIPTION OF THE PROJECT

The main objective of the project is to upgrade the capacity of the LNG terminal in Swinoujście from 5 up to 7,5 bcm/y. The project will enable to benefit from the economies of scale, as relatively low investment costs (no need to construct the facility from scratch, the majority of costs will be related to the construction of the 3rd storage tank) may bring further benefits to gas consumers in the Baltic Sea area and the CEE region (increase of SoS, competition and liquidity, decrease of gas prices).

### **EXPECTED BENEFITS**

Security of Supply, Diversification of sources, Diversification of routes, N-1 National (Poland and possibly Lithuania, Latvia, Estonia, Denmark, Slovakia and Hungary), N-1 Regional (Baltic Sea region, Central-Eastern Europe), Back-up for renewables, The extension of the LNG terminal in Swinoujscie will have an impact on:

increasing security of supply in the Baltic Sea and CEE regions by diversifying supply routes, sources (the first new physical source of supply for both regions) and counterparts (access to global LNG market); creating well-interconnected gas infrastructure in the Baltic Sea and CEE regions;

eliminating the energy islands, as the terminal in Swinoujscie may play the role of regional LNG terminal for the Baltic States and Finland (transport of gas via Gas Interconnection Poland-Lithuania or transport by LNG vessels); enhancing competition on regional markets;

promoting natural gas as a reliable, competitive and environmentally-friendly source of energy e.g. in the transport sector (maritime transport);

creating a physical hub in Swinoujscie and/or a virtual hub in Poland;

establishing adequate technical conditions necessary to cover the forecasted growth of the gas demand in Poland based on the development of the power generation sector and possible leverage for market coupling potential in the Baltic Sea region and in Central-Eastern Europe.

The LNG terminal in Świnoujście contributes to North-South gas interconnections in Central Eastern and South Eastern Europe, as the supplies from Świnoujście may be directed through upgraded transmission system in Poland (the North-South Corridor in Poland), PL-CZ and PL-SK interconnections towards the South, to other CEE countries.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
Support from EU funds is expected		

### Upgrade of PL-DE interconnection in Lasów Non-FID **TRA-N-274 Pipeline including CS** GENERAL INFORMATION **SPONSORS** FINANCING Promoter GAZ-SYSTEM S.A. Operator GAZ-SYSTEM S.A. **TEN-E Project ?** Project of Common Interest Interested by PCI ? Yes IGAs None en.gaz-system.pl/nasze-inwestycje/ Web Link

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%
% Exemption in exit direction	0%

Gas Transmission Operator GAZ-SYSTEM S.A. (100%)

SCHEDULE		TECHNICAL
End of permitting phase		# of Pipelin
FID	2015	Total Pipeli
Construction		Total CS Po
Commissioning	2021	Expected Lo
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	4
Total Pipeline Length (km)	+106.00
Total CS Power (MW)	+10.00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Lasów	Yes	entry	42.00	Hub Germany (GASPOOL)	Hub Poland

### DESCRIPTION OF THE PROJECT

The main objective of the project is to modernise and expand the transmission system near PL-DE interconnection in Lasów with a view to upgrading the capacity of the interconnection point in Lasów from 1,5 up to 3 bcm/y. The upgraded PL-DE interconnection in Lasów will improve security of gas supplies, increase reliability of cross-border transmission infrastructure between Poland and Germany and will contribute to well-interconnected gas network in the CEE region. The scope of necessary investments is currently investigated.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (integration of market areas in Central-Eastern Europe and Western Europe (GASPOOL in Germany)), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland), N-1 Regional (Central-Eastern Europe), Back-up for renewables, The upgraded PL-DE interconnection in Lasów will have an impact on:

improving security of gas supplies and increasing reliability of cross-border transmission infrastructure between Poland and Germany;

creating well-interconnected gas network in the CEE region;

enhancing the access of gas market players in the CEE region to a developed, competitive and diversified Western European gas market (Germany);

establishing adequate technical conditions necessary to cover the forecasted growth of the gas demand in Poland based on the development of the power generation sector and possible leverage for market coupling potential in Central-Eastern Europe.,

### COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing
Support from EU funds is expected		

RA-N-245	The North-South G	as Corridor in Eastern Poland		Non-FID
cluding CS				
	GENERAL INFORMATION		FINANCING	
	Promoter Operator TEN-E Project ? Interested by PCI ? IGAs	GAZ-SYSTEM S.A. GAZ-SYSTEM S.A. Project of Common Interest Yes None		
	Web Link			

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%
% Exemption in exit direction	0%

Gas Transmission Operator GAZ-SYSTEM S.A. (100%)

SCHEDULE		TE
End of permitting phase		# 0
FID	2015	To
Construction		To
Commissioning	2023	Exp
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	7
Total Pipeline Length (km)	+409,00
Total CS Power (MW)	+18,30
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

The investment tasks within the project constitute essential elements of the planned North-South gas interconnections in Central Eastern and South Eastern Europe. The corridor consists of two routings on the Polish territory – the basic one that is located in western and southern Poland and the complementary routing covering the area of potential unconventional gas deposits in Eastern Poland and being connected to two interconnectors, i.e. Poland – Lithuania (GIPL) and Poland – Slovakia. Implementation of the project will allow for significant volumes of gas to be transported by means of PL-SK interconnection. It will also enhance the access to the USG Strachocina that have large expansion potential and may serve as essential security of supply infrastructure in the CEE region.

### **EXPECTED BENEFITS**

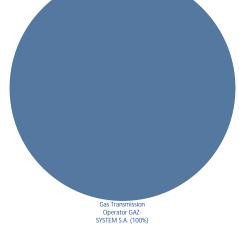
Security of Supply, Market integration (market areas in Central-Eastern Europe and the Baltic States), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland and possibly Lithuania, Latvia, Estonia.), N-1 Regional (Central-Eastern Europe, Baltic Sea region), Back-up for renewables, Implementation of the investment tasks within this project will allow for significant volumes of gas to be transported by means of PL-SK interconnection. They will also enhance the access to the USG Strachocina that have large expansion potential and may serve as essential security of supply infrastructure in the CEE region.

The projects in eastern Poland are located in the area which offers the possibility to extract unconventional gas. If reserves are confirmed, the transmission infrastructure in Eastern Poland might well be used to transport unconventional gas to the Baltic states (via Gas Interconnection Poland-Lithuania) and CEE countries (via PL-SK and PL-CZ interconnections).

Construction of the pipelines within this project, together with completion of the PL-SK interconnection and GIPL, will definitely have a positive impact on the competition in the CEE and Baltic regions, 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.,

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			

# TRA-N-247 The North-South corridor in Western Poland Non-FID Pipeline including CS SPONSORS GENERAL INFORMATION FINANCING Promoter GAZ-SYSTEM S.A. Operator GAZ-SYSTEM S.A. Disperator GAZ-SYSTEM S.A. TIN 5 Disinal 2



Promoter	GAZ-SYSTEM S.A.
Operator	GAZ-SYSTEM S.A.
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Yes
IGAs	None
Web Link	en.gaz-system.pl/nasze-inwestycje/krajowy-system- przesylowy/

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%
% Exemption in exit direction	0%

SCHEDULE		TE
End of permitting phase		# (
FID	2015	Тс
Construction		Тс
Commissioning	2018	Ex
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	10
Total Pipeline Length (km)	+739,00
Total CS Power (MW)	+7,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

The investment tasks within the project constitute essential elements of the planned North-South gas interconnections in Central-Eastern Europe. This corridor consists of two routings on the Polish territory – the basic one that is located in Western and Southern Poland and the complementary routing covering the area of potential unconventional gas deposits in Eastern Poland. Implementation of the project will enhance functionality of transmission system in Western and Southern Poland. It will also enforce the internal system in order to facilitate better operational functioning of the upgraded PL-CZ interconnection, as well as to initiate gas flow on the planned PL-SK interconnection.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (market areas in Central-Eastern Europe), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland), N-1 Regional (Central-Eastern Europe), Back-up for renewables, Implementation of the investment tasks within 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, as well as to initiate gas flow on the planned PL-SK interconnection.

increasing the security of supply sources, routes and counterparts, as well as to providing the overall flexibility for the CEE region.

improving European gas grid interconnections.

creating a robust, well-functioning internal market in the CEE region, by ensuring high reliability of the cross-border transmission between Poland, the Czech Republic and Slovakia.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
support from EU funds is expected		

### Poland PGNiG SA

UGS-F-202		l	PMG Husów		FID
torage Facility					
PONSORS	Pacility		I	FINANCING	
		Promoter	PGniG		
		Operator	Operator Systemu Magazynowania Sp. Z o.o.		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	Not defined yet		
		IGAs	None		
		Web Link			

THIRD-PARTY ACCESS REGIME	

**Considered TPA Regime** 

Considered Tariff Regime

Applied for Exemption ?

% Exemption in entry direction

% Exemption in exit direction

Exemption granted ?

PGNiG S.A. (100%)

0%

	SCHEDULE		TECHNICAL INFORMATION	
Regulated	End of permitting phase	2014 Q2	Storage facility	PMG Husów
Regulated	FID	2010 Q4	Working volume (mcm)	+150,00
No	Construction	2014 Q2	Total CS Power (MW)	+0,94
No	Commissioning	2014/3	Deliverability (mcm/d)	
0%	Last completed Phase :	FID		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	entry	10,34	Hub Poland	Storage Poland

Underground gas storage (PMG) extension in order to increase working gas capacity injection and withdrawal rates. Instalation of additional compressor station to allow for a more flexible opeartion.

### **EXPECTED BENEFITS**

### COMMENTS ABOUT THE PROJECT FINANCING

### Public financing

Private financing

### **UGS-F-220 PMG Wierzchowice** FID Storage Facility GENERAL INFORMATION FINANCING SPONSORS PGniG Promoter Operator Operator Systemu Magazynowania Sp. Z o.o. TEN-E Project ? Not part of TEN-E Interested by PCI ? Not defined yet IGAs None Web Link

PGNiG S.A. (100%)

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION		
Considered TPA Regime	Regulated	End of permitting phase	2014 Q2	Storage facility	PMG Wierzchowice	
Considered Tariff Regime	Regulated	FID	2007 Q1	Working volume (mcm)	+625,00	
Applied for Exemption ?	No	Construction	2013 Q4	Total CS Power (MW)		
Exemption granted ?	No	Commissioning	2014/2	Deliverability (mcm/d)		
% Exemption in entry direction	0%	Last completed Phase :	FID			
% Exemption in exit direction	0%					

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone UGS - PL - Gaz-System/Magazynowania 52,80 Storage Poland Yes exit Hub Poland 39,60 Storage Poland Yes entry Hub Poland

### DESCRIPTION OF THE PROJECT

Underground gas storage (PMG) extension in order to increase working gas capacity, injection and withdrawal rates

### **EXPECTED BENEFITS**

### COMMENTS ABOUT THE PROJECT FINANCING

### Public financing

Private financing

### Multilateral financing

### **UGS-F-201 PMG Brzeznica** FID Storage Facility GENERAL INFORMATION FINANCING SPONSORS PGniG Promoter Operator Operator Systemu Magazynowania Sp. Z o.o. TEN-E Project ? Not part of TEN-E Interested by PCI ? Not defined yet IGAs None Web Link

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2016 Q2	Storage facility	PMG Brzeznica
Considered Tariff Regime	Regulated	FID	2010 Q1	Working volume (mcm)	+35,00
Applied for Exemption ?	No	Construction	2015 Q4	Total CS Power (MW)	+0,34
Exemption granted ?	No	Commissioning	2016/2	Deliverability (mcm/d)	+0,51
% Exemption in entry direction	0%	Last completed Phase :	FID		
% Exemption in exit direction	0%				

PGNiG S.A. (100%)

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) To Zone Interconnection From Zone UGS - PL - Gaz-System/Magazynowania 3,74 Storage Poland Yes entry Hub Poland exit 5,61 Storage Poland Hub Poland Yes

### DESCRIPTION OF THE PROJECT

Underground gas storage (PMG) extension in order to increase working gas capacity injection and withdrawal rates. Instalation of compressor station to allow for a more flexible operation.

### **EXPECTED BENEFITS**

### COMMENTS ABOUT THE PROJECT FINANCING

### Public financing

Private financing

GS-F-200	KPMG Mogilnio			FID
e Facility				
SORS	GENERAL INFORMA	TION	FINANCING	
	Promoter	PGniG		
	Operator	Operator Systemu Magazynowania Sp. Z o.o.		
	TEN-E Project ?	Not part of TEN-E		
	Interested by PCI ?	Not defined yet		
	IGAs	None		
	Web Link			
PGNiG S.A. (100%)				

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TEC
End of permitting phase	2020	Stor
FID	2007 Q4	Wo
Construction	2020	Tota
Commissioning	2020	Deli
Last completed Phase :	FID	

TECHNICAL INFORMATION	
Storage facility	KPMG Mogilno
Working volume (mcm)	+392,10
Total CS Power (MW)	
Deliverability (mcm/d)	+10,80

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	exit	118,80	Storage Poland	Hub Poland

Under gas storage (KPMG) extension in order to increase working gas capacity

### EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING

### Public financing

Private financing

UGS-F-199	KPMG Kosakowo				FID
prage Facility					
DNSORS		GENERAL INFORMATION	N	FINANCING	
		Promoter	PGniG		
		Operator	Operator Systemu Magazynowania Sp. Z o.o.		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	Not defined yet		
		IGAs	None		
		Web Link			

PGNiG S.A. (100%)

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	2021
FID	2007 Q1
Construction	2021
Commissioning	2021
Last completed Phase :	FID

TECHNICAL INFORMATION	
Storage facility	KPMG Kosakowo
Working volume (mcm)	+250,00
Total CS Power (MW)	+2,40
Deliverability (mcm/d)	+9,60

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone UGS - PL - Gaz-System/Magazynowania Storage Poland Yes exit 105,60 Hub Poland 26,40 Hub Poland Storage Poland Yes entry

### DESCRIPTION OF THE PROJECT

Construction of new underground gas storage (KPMG) to secure uninterrupted gas supplies in northern Poland.

### **EXPECTED BENEFITS**

### COMMENTS ABOUT THE PROJECT FINANCING

### Public financing

Private financing

		and the second		
UGS-N-219		erzchowice extension		Non-FID
torage Facility				
PONSORS	GENERAL INFORMATIC	DN	FINANCING	
	Promoter	PGniG		
	Operator	Operator Systemu Magazynowania Sp. Z o.o.		
	TEN-E Project ?	Not part of TEN-E		
	Interested by PCI ?	Not defined yet		
	IGAs	None		
	Web Link			
PGNiG S.A. (100%)				

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNI
End of permitting phase		Storage
FID	2014	Workin
Construction		Total C
Commissioning	2023*	Deliver
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
Storage facility	PMG Wierzchowice
Working volume (mcm)	+800,00
Total CS Power (MW)	+8,40
Deliverability (mcm/d)	+11,00

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	exit	121,00	Storage Poland	Hub Poland
	Yes	entry	92,40	Hub Poland	Storage Poland

Underground gas storage (PMG) extension in order to increase working gas capacity.

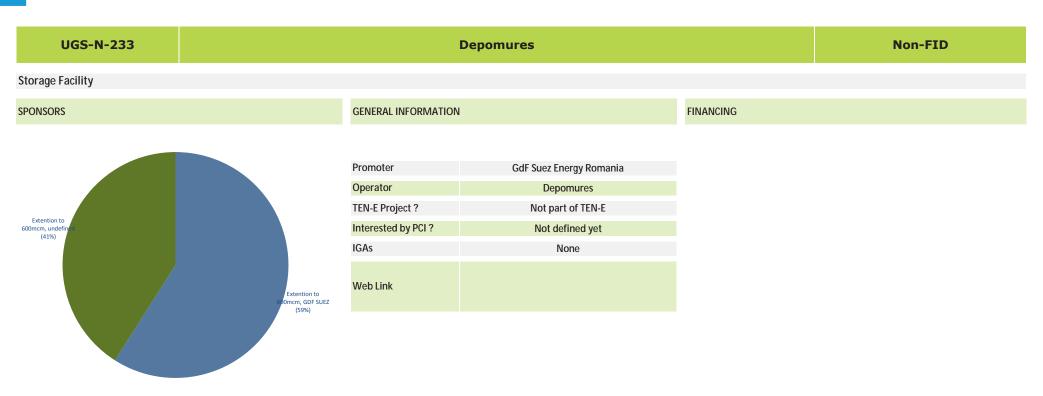
### EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING

### Public financing

Private financing

# **B Romania** GdF Suez Energy Romania



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2013 Q1	Storage facility	Depomures
Considered Tariff Regime	Regulated	FID	2012 Q4	Working volume (mcm)	+300,00
Applied for Exemption ?	No	Construction	2013 Q2	Total CS Power (MW)	+2,30
Exemption granted ?	Not relevant	Commissioning	2015/4	Deliverability (mcm/d)	+2,30
% Exemption in entry direction	0%	Last completed Phase :	FEED		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

None

### **EXPECTED BENEFITS**

Security of Supply, Market integration (The project will contribute to improve seasonal and peak flexibility in Romania and the neighbouring countries ), N-1 National (The storage extension will increase deliverability by 4 mcm/day. This could be used by Romania, Bulgaria or Greece.),

### COMMENTS ABOUT THE PROJECT FINANCING

### Public financing

**Private financing** 



TRA-N-132	AGRI Pipeline - Romania	n section (East-West Pipelin	e)	Non-FID
ipeline including CS				
PONSORS	GENERAL INFORMATION		FINANCING	
	Promoter	Transgaz		
	Operator	SNGN Transgaz S.A.		
	TEN-E Project ?	Not part of TEN-E		
	Interested by PCI ?	Yes		
	IGAs	None		
	Web Link			

Transgaz	(100%)
----------	--------

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%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION
End of permitting phase		# of Pipelines, nodes, CS
FID		Total Pipeline Length (km)
Construction		Total CS Power (MW)
Commissioning	2015	Expected Load Factor
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+850,00
Total CS Power (MW)	+42,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
East-West Pipeline RO-HU (AGRI)	Yes	exit	168,00	Hub Romania	Hub Hungary

DESCRIPTION OF THE PROJECT		
None		
EXPECTED BENEFITS		
Security of Supply, Market integration (RO, HU and HU neighbours ), Diversifi	cation of sources, Diversification of routes, N-1 National (For RO, N-1 inrcrease	s from 1,65 to 1,73), Power-to-gas, Biogas,
COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

TRA-F-139	Integration	FID			
Pipeline including CS					
SPONSORS		GENERAL INFORMATION	I	FINANCING	
		Promoter	Transgaz		
		Operator	SNGN Transgaz S.A.		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	Yes		
		IGAs	None		
		Web Link			
Transgaz	100%)				

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%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	1
FID	2010	Total Pipeline Length (km)	
Construction		Total CS Power (MW)	
Commissioning	2013	Expected Load Factor	
Last completed Phase :	Permitting		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Isaccea (RO) - Orlovka (UA)	Yes	entry	147,00	Transit Ukraine	Hub Romania

The project implies the construction of a connection pipeline between the DN 1000 Pipeline (Transit 1 Bulgaria) and the NTS, with the possibility to meter the natural gas volumes transmitted in both directions.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (RO, BG, UKR), Reverse Flows, Diversification of sources, Power-to-gas, Biogas,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

TRA-F-142		Reverse	flow at Negru Voda		FID
Pipeline including CS					
PONSORS		GENERAL INFORMATION		FINANCING	
		Promoter	Transgaz		
		Operator	SNGN Transgaz S.A.		
		TEN-E Project ?	Not part of TEN-E		
		Interested by PCI ?	Yes		
		IGAs	None		
		Web Link		Private Financing (50,00%)	Public Financing (50,00%)
Transgaz	(100%)				
TUNGU					
HIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	

THIRD-PARTY ACCESS REGIVE	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		T
End of permitting phase		#
FID	2010	T
Construction		T
Commissioning	2013	E
Last completed Phase :	Permitting	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Negru Voda I	Yes	entry	168,00	Hub Bulgaria (NGTS)	Trans-Balkan Pipeline (Romania)

Upgrades of technical installation currently existing at the GMS Negru Voda in order to ensure reverse flow capacity with the possibility to measure such capacity.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (RO; BG; UKR), Reverse Flows, Diversification of sources, Power-to-gas, Biogas,

# COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Multilateral financing Image: Comment of the project financing Image: Comment of the project financing

TRA-N-126	Rev	verse flow on the in	terconnector Romania - Hungary	,	Non-FID
Pipeline including CS					
SPONSORS		GENERAL INFORMATION		FINANCING	
		Promoter Operator TEN-E Project ? Interested by PCI ?	Transgaz SNGN Transgaz S.A. Not part of TEN-E Yes		
		IGAs	None		
		Web Link			

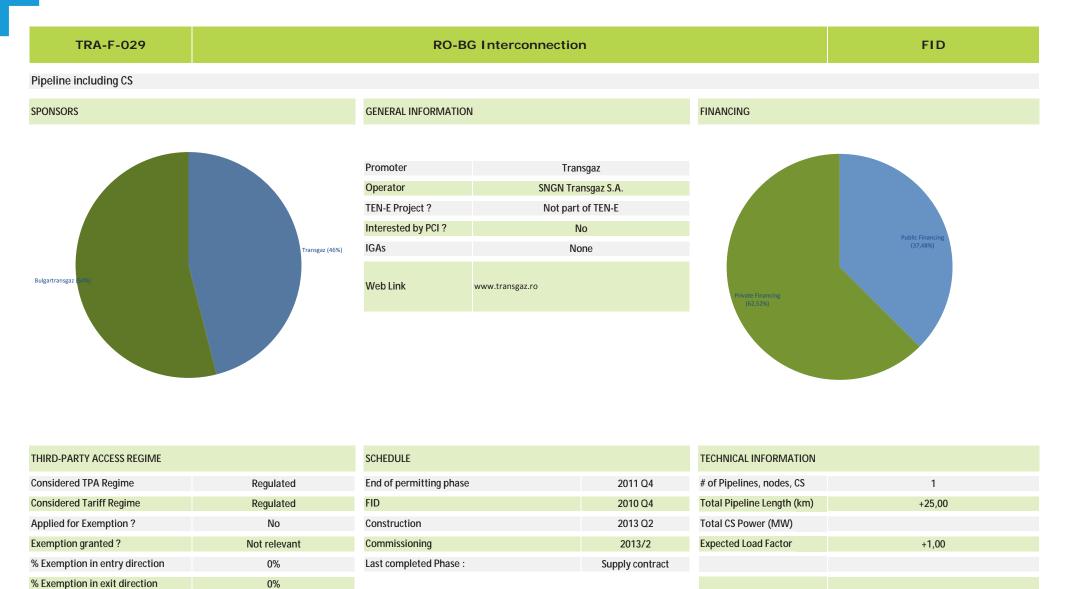
THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

Transgaz (100%)

SCHEDULE		TECHNICAL INFORMATION
End of permitting phase		# of Pipelines, nodes, CS 1
FID		Total Pipeline Length (km)
Construction		Total CS Power (MW)
Commissioning	2013/4	Expected Load Factor
Last completed Phase :	Planned	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Csanadpalota	Yes	exit	12,60	Hub Romania	Hub Hungary

DESCRIPTION OF THE PROJECT					
None					
EXPECTED BENEFITS					
Security of Supply, Market integration (RO and HU markets), Reverse Flows, Diversification of sources, Power-to-gas, Biogas,					
COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			



0%

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Ruse (BG) / Giurgiu (RO)	Yes	entry	14,38	Hub Bulgaria (NGTS)	Hub Romania
	Yes	exit	14,38	Hub Romania	Hub Bulgaria (NGTS)

# DESCRIPTION OF THE PROJECT None EXPECTED BENEFITS Diversification of sources, Diversification of routes, Diversification of sources of energy, routes and supplies; increasing the degree of interconnectivity between the gas transmission systems of the two countries; safety, reliability and interconnected energy networks, including enabling bidirectional gas flows; contribution to the establishment of the South-Eastern European regional gas market., COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Multilateral financing



### SLOVAKIA

### TRA-N-190

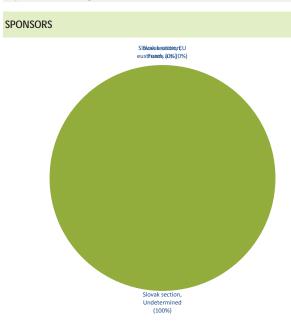
### Poland - Slovakia interconnection

GENERAL INFORMATION

Non-FID

FINANCING

### **Pipeline including CS**



Promoter	eustream, a.s.			
Operator	eustrea	am, a.s.		
TEN-E Project ?	Project of Common Interest			
Interested by PCI ?	Yes			
IGAs	None			
Web Link	www.eustream.sk/en_transmission-system/en_pl-sk- interconnector			
TEN-E Requests	Date of Request 28.02.2011	Year Funding Granted 2012		

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2015 Q3	# of Pipelines, nodes, CS	2
Considered Tariff Regime	Regulated	FID	2015 Q2	Total Pipeline Length (km)	+106,00
Applied for Exemption ?	No	Construction	2016 Q3	Total CS Power (MW)	
Exemption granted ?	No	Commissioning	2019	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone Interconnector PL - SK Yes exit 290,50 Hub Slovakia Hub Poland Yes entry 143,70 Hub Poland Hub Slovakia

### DESCRIPTION OF THE PROJECT

To build interconnection between SK&PL transmission sys. and thus increase the SoS in CEE reg. & contribute to establishing a well-functioning internal gas market

### **EXPECTED BENEFITS**

Security of Supply, Market integration (CEE region), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Poland, Slovakia, Hungary), N-1 Regional (CEE region), Back-up for renewables, Power-to-gas,

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			

### SLOVAKIA

### **TRA-F-016**

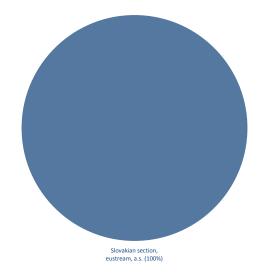
### Slovakia - Hungary interconnection

GENERAL INFORMATION

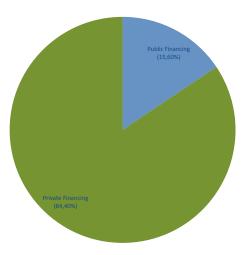
FID

### Pipeline including CS

SPONSORS



Promoter	eustream, a.s.
Operator	eustream, a.s.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	1
Web Link	www.eustream.sk/en_transmission-system/en_sk-hu- interconnector



FINANCING

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	2012 Q1
FID	2010 Q1
Construction	2012 Q2
Commissioning	2015
Last completed Phase :	Construction

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+18,00
Total CS Power (MW)	
Expected Load Factor	+0,80

PROJECTED CAPACITY INCREASES Modelled Direction Capacity (GWh/d) Interconnection From Zone To Zone Balassagyarmat Hub Hungary (SK-HU Interconnector) Yes exit 127,40 Hub Slovakia Yes entry 50,90 Hub Hungary (SK-HU Hub Slovakia

### **DESCRIPTION OF THE PROJECT**

Creation of a missing interconnection between SK and HU and thus increase the SoS in CEE region, and enhance market integration and functionality.

### **EXPECTED BENEFITS**

Security of Supply, Market integration (CEE region), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Slovakia, Hungary), N-1 Regional (CEE region), Back-up for renewables, Power-to-gas,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
Interconnector Slovakia – Hungary: EEPR: € 3.3 mil.	eustream, a.s.	

### SLOVAKIA

### **TRA-F-017** System Enhancements - Eustream FID **Pipeline including CS** GENERAL INFORMATION FINANCING SPONSORS Promoter eustream, a.s. Operator eustream, a.s. TEN-E Project ? Not part of TEN-E Interested by PCI ? No IGAs None Web Link www.eustream.sk. Private Financing (100,00%) eustream, a.s. (100%)

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	2009 Q4
FID	2010 Q1
Construction	2010 Q1
Commissioning	2017
Last completed Phase :	FID

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Modernization and Upgrade of the Network and Replacement of Technologies due to Environmental Norms

### **EXPECTED BENEFITS**

Security of Supply, Market integration, Back-up for renewables, Power-to-gas, Modernization and upgrade of the network and replacement of technologies due to environmental norms.,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
	eustream, a.s.	

### **10** Slovenia PLINOVODI d.o.o.

### TRA-F-096

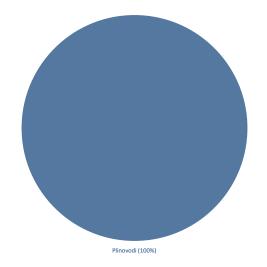
### CS Kidričevo (3rd unit 3,5 MW)

GENERAL INFORMATION

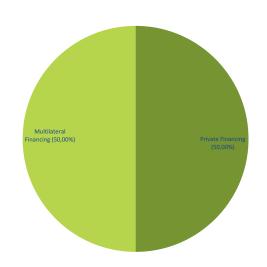
FID

### Pipeline including CS

SPONSORS



Promoter	Plinovodi d.o.o.
Operator	Plinovodi d.o.o.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posyetovalni-dokument.pdf



FINANCING

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TI
End of permitting phase		#
FID	2011	Т
Construction		Т
Commissioning	2014	E
Last completed Phase :	FEED	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total CS Power (MW)	+3,50
Expected Load Factor	

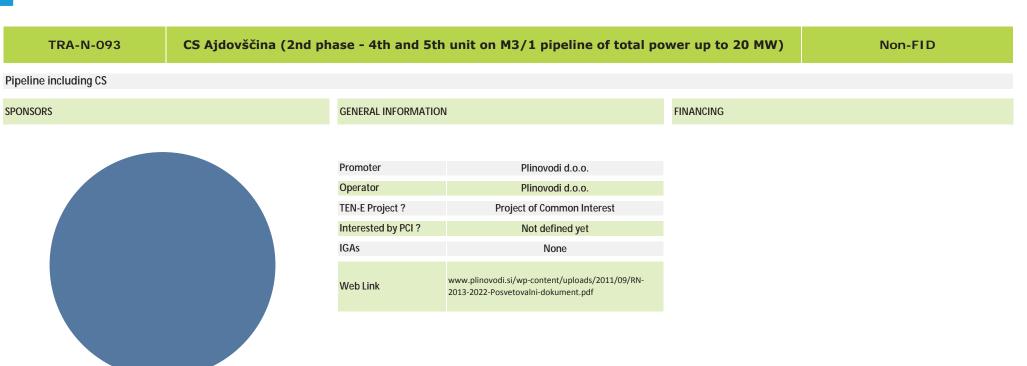
PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Increasing the capacity of the transmission system.

### **EXPECTED BENEFITS**

Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase),

COMMENTS ABOUT THE PROJECT FINANCING							
Public financing	Private financing	Multilateral financing					



2023\* Planned

THIRD-PARTY ACCESS REGIME		SCHEDULE
Considered TPA Regime	Regulated	End of permitting phase
Considered Tariff Regime	Regulated	FID
Applied for Exemption ?	No	Construction
Exemption granted ?	No	Commissioning
% Exemption in entry direction	0%	Last completed Phase :
% Exemption in exit direction	0%	

Plinovodi (100%)

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total CS Power (MW)	+20,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

### DESCRIPTION OF THE PROJECT Cross-border transmission. EXPECTED BENEFITS Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase), COMMENTS ABOUT THE PROJECT FINANCING Public financing Pivate financing

### TRA-N-092

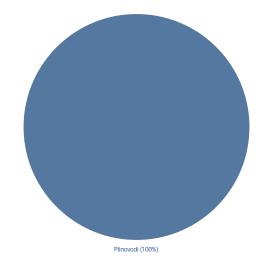
### CS Ajdovščina (3rd unit up to 5 MW)

GENERAL INFORMATION

Non-FID

### Pipeline including CS

SPONSORS



Promoter	Plinovodi d.o.o.			
Operator	Plinovodi d.o.o.			
TEN-E Project ?	Not part of TEN-E			
Interested by PCI ?	Not defined yet			
IGAs	None			
Web Link	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posvetovalni-dokument.pdf			

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	1
FID		Total Pipeline Length (km)	
Construction		Total CS Power (MW)	+5,00
Commissioning	2016	Expected Load Factor	
Last completed Phase :	Planned		

FINANCING

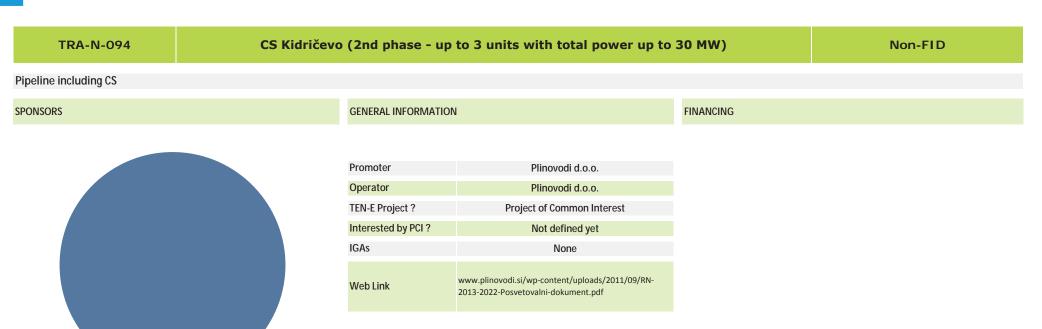
PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Adjustment to operating parameters of the transmission system of the Italian TSO. Reverse flow.

### **EXPECTED BENEFITS**

Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase),

COMMENTS ABOUT THE PROJECT FINANCING							
Public financing	Private financing	Multilateral financing					



THIRD-PARTY ACCESS REGIME		SCHEDULE
Considered TPA Regime	Regulated	End of permitting phase
Considered Tariff Regime	Regulated	FID
Applied for Exemption ?	No	Construction
Exemption granted ?	No	Commissioning
% Exemption in entry direction	0%	Last completed Phase :
% Exemption in exit direction	0%	

Plinovodi (100%)

	TECHNICAL INFORMATION	
	# of Pipelines, nodes, CS	1
	Total Pipeline Length (km)	
	Total CS Power (MW)	+30,00
2016	Expected Load Factor	
Planned		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Takeover of natural gas from cross-border transmission pipeline to M2/1 pipeline.

### **EXPECTED BENEFITS**

Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase),

COMMENTS ABOUT THE PROJECT FINANCING						
Public financing	Private financing	Multilateral financing				

### CS Vodice II (on M2/1 pipeline up to 3 units with total power up to 30 MW) Non-FID **TRA-N-102 Pipeline including CS SPONSORS** GENERAL INFORMATION FINANCING Promoter Plinovodi d.o.o. Operator Plinovodi d.o.o. TEN-E Project ? Project of Common Interest Interested by PCI ? Not defined yet IGAs None www.plinovodi.si/wp-content/uploads/2011/09/RN-Web Link 2013-2022-Posvetovalni-dokument.pdf

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

Plinovodi (100%)

End of permitting phase       # of Pipelines, nodes, CS       1         FID       Total Pipeline Length (km)         Construction       Total CS Power (MW)       +30,00         Commissioning       2023*       Expected Load Factor         Last completed Phase :       Planned	SCHEDULE		TECHNICAL INFORMATION	
Construction     Total CS Power (MW)     +30,00       Commissioning     2023*     Expected Load Factor	End of permitting phase		# of Pipelines, nodes, CS	1
Commissioning 2023* Expected Load Factor	FID		Total Pipeline Length (km)	
	Construction		Total CS Power (MW)	+30,00
last completed Phase · Dlanned	Commissioning	2023*	Expected Load Factor	
	Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Compressor station on the M2/1 pipeline for cross-border transmission.

### **EXPECTED BENEFITS**

Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase),

COMMENTS ABOUT THE PROJECT FINANCING						
Public financing	Private financing	Multilateral financing				

### Non-FID M1/3 SLO-A border crossing **TRA-N-109 Pipeline including CS** GENERAL INFORMATION **SPONSORS** FINANCING Promoter Plinovodi d.o.o. Operator Plinovodi d.o.o. **Project of Common Interest** TEN-E Project ? Interested by PCI ? Not defined yet IGAs None

Web Link www.plinovodi.si/wp-content/uploads/2011/09/RN-2013-2022-Posvetovalni-dokument.pdf

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

Plinovodi (100%)

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	1
FID		Total Pipeline Length (km)	+0,20
Construction		Total CS Power (MW)	
Commissioning	2023*	Expected Load Factor	+0,70
Last completed Phase :	Planned		

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
	No	entry	181,35		

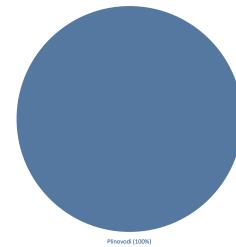
Adjustment to operating parameters of the transmission system of the Austrian TSO, with parallel connection to the existing pipeline.

### **EXPECTED BENEFITS**

Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase),

COMMENTS ABOUT THE PROJECT FINANCING							
Public financing	Private financing	Multilateral financing					

### TRA-N-100 M10 Vodice - Rateče Non-FI D Pipeline including CS SPONSORS GENERAL INFORMATION FINANCING Promoter Promoter Pinovodi d.o.o. Operator Diperator Plinovodi d.o.o. Plinovodi d.o.o.



Promoter	Plinovodi d.o.o.			
Operator	Plinovodi d.o.o.			
TEN-E Project ?	Project of Common Interest			
Interested by PCI ?	Ye	es		
IGAs	None			
Web Link	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posvetovalni-dokument.pdf			
TEN-E Requests	Date of Request 28.02.2011 01.04.2010	Year Funding Granted Not yet 2011		

2017 Planned

THIRD-PARTY ACCESS REGIME		SCHEDULE
Considered TPA Regime	Negotiated (e.g. Exemption)	End of permitting phase
Considered Tariff Regime	Negotiated (e.g. Exemption)	FID
Applied for Exemption ?	Not yet	Construction
Exemption granted ?	Not yet	Commissioning
% Exemption in entry direction	0%	Last completed Phase :
% Exemption in exit direction	0%	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+79,00
Total CS Power (MW)	
Expected Load Factor	+0,90

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Tarvisio (IT) /Rateče (SI)	Yes	exit	289,00	Hub Slovenia	Hub Italia
	No	exit	754,00	Hub Slovenia	Hub Italia

# DESCRIPTION OF THE PROJECT Cross-border transmission. EXPECTED BENEFITS Security of Supply, Market integration, Reverse Flows, Diversification of routes, N-1 National, N-1 Regional, COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Multilateral financing

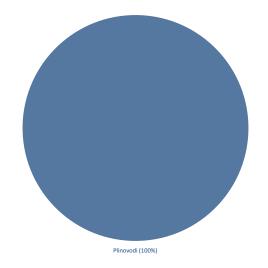
### TRA-F-104

### M2/1 Rogaška Slatina – Trojane

FID

### Pipeline including CS

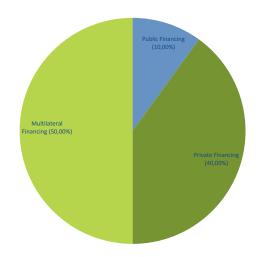
SPONSORS



Promoter	Plinovodi d.o.o.
Operator	Plinovodi d o o

GENERAL INFORMATION

Operator	Plinovodi d.o.o.
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posvetovalni-dokument.pdf



FINANCING

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	
FID	2010
Construction	2013
Commissioning	2014
Last completed Phase :	Supply contract

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+65,00
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Increasing the capacity of the transmission system.

### **EXPECTED BENEFITS**

Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase),

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

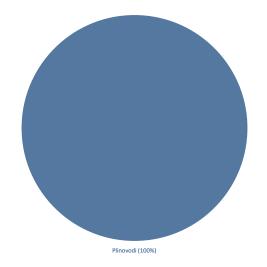
### TRA-F-097

### M2/1 Trojane – Vodice

FID

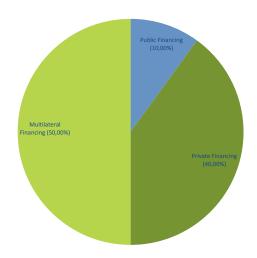
### Pipeline including CS

SPONSORS



G	F٨	JFF	2AI	INF	ORN	ЛАТ	ION	
0	<b>-</b>				OIG		1014	

Promoter	Plinovodi d.o.o.
Operator	Plinovodi d.o.o.
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posvetovalni-dokument.pdf



FINANCING

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	
FID	2010
Construction	2013
Commissioning	2014
Last completed Phase :	Supply contract

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+34,00
Total CS Power (MW)	
Expected Load Factor	

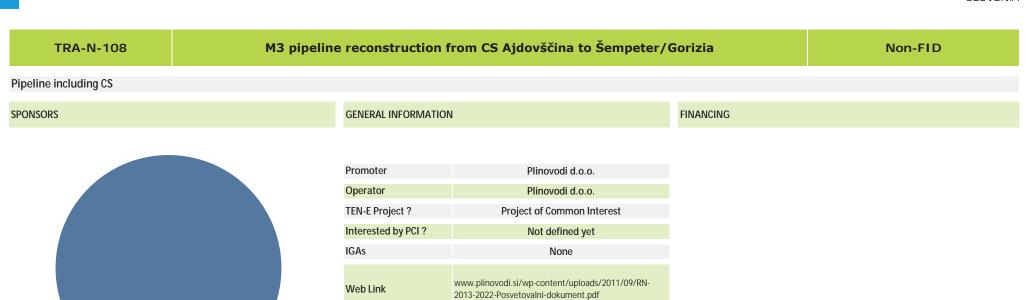
PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

Increasing the capacity of the transmission system.

### **EXPECTED BENEFITS**

Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase),

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing



Date of Request 01.04.2010

TEN-E Requests

THIRD-PARTY ACCESS REGIME		SC
Considered TPA Regime	Regulated	En
Considered Tariff Regime	Regulated	FIE
Applied for Exemption ?	No	Со
Exemption granted ?	No	Со
% Exemption in entry direction	0%	La
% Exemption in exit direction	0%	

Plinovodi (100%)

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	1
FID		Total Pipeline Length (km)	+31,00
Construction		Total CS Power (MW)	
Commissioning	2023*	Expected Load Factor	
Last completed Phase :	Planned		

Year Funding Granted

2011

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Gorizia (IT) /Šempeter (SI)	No	exit	25,40	Hub Slovenia	Hub Italia
	No	exit	62,99	Hub Slovenia	Hub Italia

Adjustment to operating parameters of the transmission system of the Italian TSO.

### **EXPECTED BENEFITS**

Removing bottlenecks of transmission system and increase of its capacities up to the existing capacities of neighbouring transmission system operators (first phase) Ensuring additional capacities for further market development and transits, including reverse flows (second phase),

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

### TRA-N-099

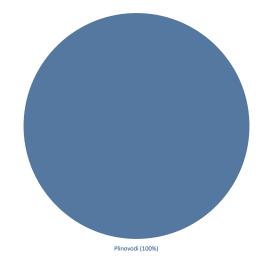
### M3/1a Gorizia/Šempeter - Ajdovščina

GENERAL INFORMATION

Non-FID

### Pipeline including CS

SPONSORS



Promoter	Plinovodi d.o.o.				
Operator	Plinovodi d.o.o.				
TEN-E Project ?	Project of Common Interest				
Interested by PCI ?	Ye	es			
IGAs	None				
Web Link	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posvetovalni-dokument.pdf				
TEN-E Requests	Date of Request 28.02.2011	Year Funding Granted Not yet			

THIRD-PARTY ACCESS REGIME		SCHE
Considered TPA Regime	Negotiated (e.g. Exemption)	End
Considered Tariff Regime	Negotiated (e.g. Exemption)	FID
Applied for Exemption ?	Not yet	Cons
Exemption granted ?	Not yet	Com
% Exemption in entry direction	0%	Last
% Exemption in exit direction	0%	

CHEDULE		TECHNICAL INFORMATION	
nd of permitting phase		# of Pipelines, nodes, CS	1
D		Total Pipeline Length (km)	+29,00
onstruction		Total CS Power (MW)	
ommissioning	2017	Expected Load Factor	+0,75
ast completed Phase :	Planned		

FINANCING

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Gorizia (IT) /Šempeter (SI)	No	exit	340,00	Hub Slovenia	Hub Italia
	No	exit	102,00	Hub Slovenia	Hub Italia

Cross-border transmission.

### EXPECTED BENEFITS

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

### **TRA-N-262** M3/1b Ajdovščina - Kalce Non-FID **Pipeline including CS** GENERAL INFORMATION FINANCING SPONSORS Plinovodi d.o.o. Promoter Operator Plinovodi d.o.o.



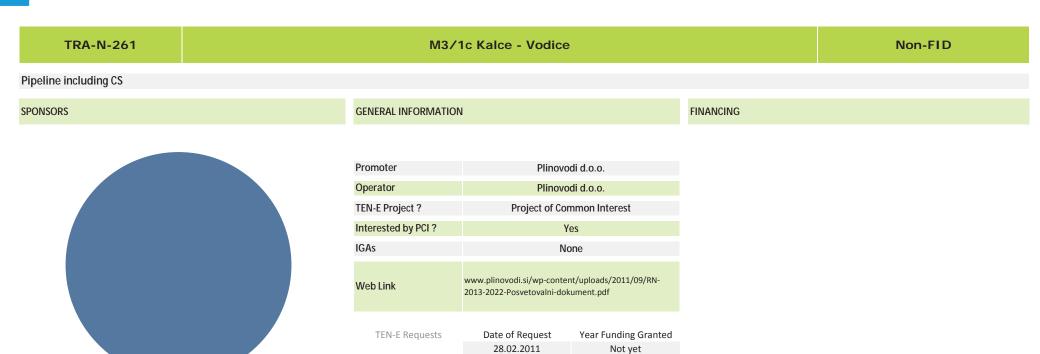
Plinovodi	(100%)

TEN-E Project ?	Project of Common Interest				
Interested by PCI ?	Yes				
IGAs	None				
	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posvetovalni-dokument.pdf				
Web Link					

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Negotiated (e.g. Exemption)	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Negotiated (e.g. Exemption)	FID		Total Pipeline Length (km)	+24,00
Applied for Exemption ?	Not yet	Construction		Total CS Power (MW)	
Exemption granted ?	Not yet	Commissioning	2017	Expected Load Factor	+0,75
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

# DESCRIPTION OF THE PROJECT Cross-border transmission. EXPECTED BENEFITS Security of Supply, Market integration, Reverse Flows, Diversification of routes, N-1 National, N-1 Regional, COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Multilateral financing



Plinovodi (100%)

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Negotiated (e.g. Exemption)	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Negotiated (e.g. Exemption)	FID		Total Pipeline Length (km)	+47,00
Applied for Exemption ?	Not yet	Construction		Total CS Power (MW)	
Exemption granted ?	Not yet	Commissioning	2017	Expected Load Factor	+0,75
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

# DESCRIPTION OF THE PROJECT Cross-border transmission. EXPECTED BENEFITS Security of Supply, Market integration, Reverse Flows, Diversification of routes, N-1 National, N-1 Regional, COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Private financing Multilateral financing

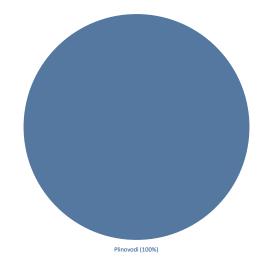
### TRA-N-107

### M6 Ajdovščina - Lucija

Non-FID

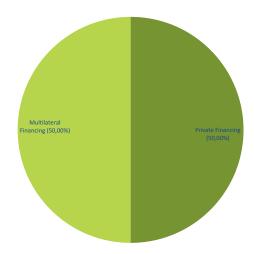
### Pipeline including CS

SPONSORS



(	GENERAL	INFORMATION	

Promoter	Plinovodi d.o.o.				
Operator	Plinovodi d.o.o.				
TEN-E Project ?	Project of Con	nmon Interest			
Interested by PCI ?	Not defined yet				
IGAs	None				
Web Link	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posvetovalni-dokument.pdf				
TEN-E Requests	Date of Request 28.02.2011	Year Funding Granted Not yet			



FINANCING

THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE	
End of permitting phase	
FID	
Construction	
Commissioning	2015
Last completed Phase :	Planned

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+73,00
Total CS Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
San Dorligo della Valle (IT) /Osp (SI)	Yes	entry	6,10	Hub Italia	Hub Slovenia

Connecting the Coastal-Karst region and the DSO in the Municipality of Koper.

### EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCI
------------------------------------

### Public financing

Private financing

Multilateral financing



Plinovodi	(100%)	

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	+51,00
Applied for Exemption ?	No	Construction		Total CS Power (MW)	
Exemption granted ?	No	Commissioning	2018	Expected Load Factor	+0,80
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Rupa (HR) / Jelšane (SI)	Yes	entry	414,00	Hub Croatia	Hub Slovenia

Interconnector with the transmission system of the Croatian TSO.

### EXPECTED BENEFITS

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

### SLOVENIA



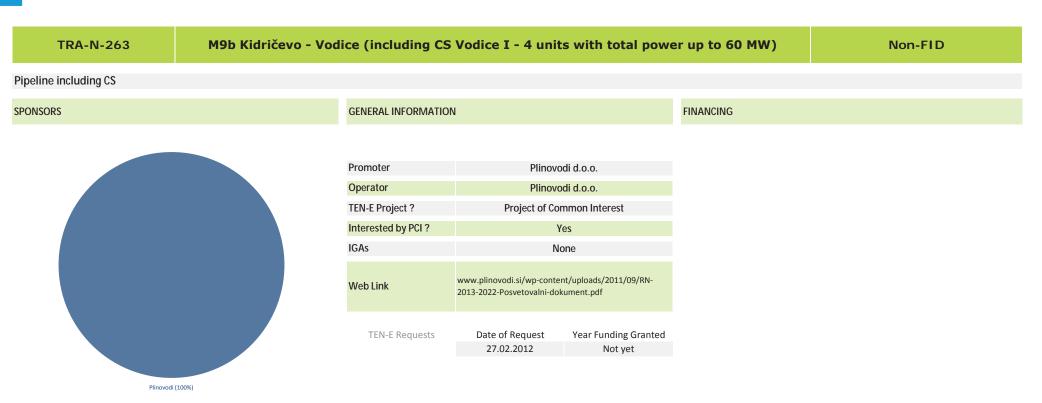
Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Not yet
Exemption granted ?	Not yet
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	
FID		Total Pipeline Length (km)	
Construction		Total CS Power (MW)	
Commissioning	2016	Expected Load Factor	
Last completed Phase :	Planned		

IECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+72,00
Total CS Power (MW)	+80,00
Expected Load Factor	+0,90

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector SI-HU	No	entry	819,00	Hub Hungary	Hub Slovenia
	No	entry	288,00	Hub Hungary	Hub Slovenia

### DESCRIPTION OF THE PROJECT Cross-border transmission. EXPECTED BENEFITS Security of Supply, Market integration, Reverse Flows, Diversification of routes, N-1 National, N-1 Regional, COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Multilateral financing



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Negotiated (e.g. Exemption)	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Negotiated (e.g. Exemption)	FID		Total Pipeline Length (km)	+115,00
Applied for Exemption ?	Not yet	Construction		Total CS Power (MW)	+60,00
Exemption granted ?	Not yet	Commissioning	2018	Expected Load Factor	+0,90
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone

# DESCRIPTION OF THE PROJECT Cross-border transmission. EXPECTED BENEFITS Security of Supply, Market integration, Reverse Flows, Diversification of routes, N-1 National, N-1 Regional, COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Multilateral financing

### **TRA-F-110 MRS Šempeter - reconstruction** FID **Pipeline including CS** GENERAL INFORMATION **SPONSORS** FINANCING Promoter Plinovodi d.o.o. Operator Plinovodi d.o.o. **Project of Common Interest** TEN-E Project ? Interested by PCI ? Not defined yet IGAs None



THIRD-PARTY ACCESS REGIME	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption ?	No
Exemption granted ?	No
% Exemption in entry direction	0%
% Exemption in exit direction	0%

Plinovodi (100%)

SCHEDULE		TECHNICAL INFORMATION
End of permitting phase		# of Pipelines, nodes, CS
FID	2012	Total Pipeline Length (km)
Construction	2014	Total CS Power (MW)
Commissioning	2014	Expected Load Factor
Last completed Phase :	Planned	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Gorizia (IT) /Šempeter (SI)	Yes	exit	25,00	Hub Slovenia	Hub Italia

Adjustment to operating parameters of the transmission system to the Italian TSO. Reverse flow.

### EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING	

### Public financing

Private financing

Multilateral financing

### TRA-N-112

### R15/1 Lendava - Kidričevo

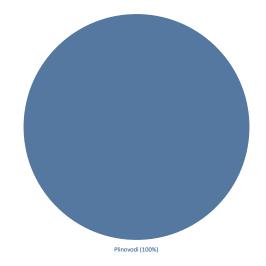
GENERAL INFORMATION

Non-FID

FINANCING

### Pipeline including CS

SPONSORS



Promoter	Plinovodi d.o.o.				
Operator	Plinovodi d.o.o.				
TEN-E Project ?	Project of Common Interest				
Interested by PCI ?	Yes				
IGAs	1				
Web Link	www.plinovodi.si/wp-content/uploads/2011/09/RN- 2013-2022-Posvetovalni-dokument.pdf				
TEN-E Requests	Date of Request 27.02.2012	Year Funding Granted Not yet			
	01.04.2010	Not yet			

THIRD-PARTY ACCESS REGIME		S
Considered TPA Regime	Regulated	E
Considered Tariff Regime	Regulated	F
Applied for Exemption ?	No	C
Exemption granted ?	No	C
% Exemption in entry direction	0%	L
% Exemption in exit direction	0%	

SCHEDULE		TECHNICAL INF
End of permitting phase		# of Pipelines, r
FID		Total Pipeline L
Construction		<b>Total CS Power</b>
Commissioning	2018	Expected Load
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+70,00
Total CS Power (MW)	
Expected Load Factor	+0,70

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector SI-HU	Yes	entry	38,00	Hub Hungary	Hub Slovenia

Interconnector with the transmission system of the Hungarian TSO.

### EXPECTED BENEFITS

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional,

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	ancing Private financing				

### R61 Lucija - Sečovlje Non-FID **TRA-N-114 Pipeline including CS** GENERAL INFORMATION **SPONSORS** FINANCING Promoter Plinovodi d.o.o. Operator Plinovodi d.o.o. TEN-E Project ? Not part of TEN-E Interested by PCI ? Not defined yet IGAs None www.plinovodi.si/wp-content/uploads/2011/09/RN-Web Link 2013-2022-Posvetovalni-dokument.pdf Plinovodi (100%)

THIRD-PARTY ACCESS REGIME			
Considered TPA Regime	Regulated		
Considered Tariff Regime	Regulated		
Applied for Exemption ?	No		
Exemption granted ?	No		
% Exemption in entry direction	0%		
% Exemption in exit direction	0%		

SCHEDULE		TECHNICAL INFORMATION		
End of permitting phase		# of Pipelines, nodes, CS	1	
FID		Total Pipeline Length (km)	+10,00	
Construction		Total CS Power (MW)		
Commissioning	2021	Expected Load Factor		
Last completed Phase :	Planned			

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Sečovlje	Yes	entry	2,31	Hub Croatia	Hub Slovenia
	No	entry	5,08	Hub Croatia	Hub Slovenia

Possible interconnector with the transmission system of the Croatian TSO.

### EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING

### Public financing

Private financing

Multilateral financing



ENTSOG AISBL

Avenue de Cortenbergh 100 1000 Brussels, Belgium Tel. +32 2 894 51 00

info@entsog.eu www.entsog.eu