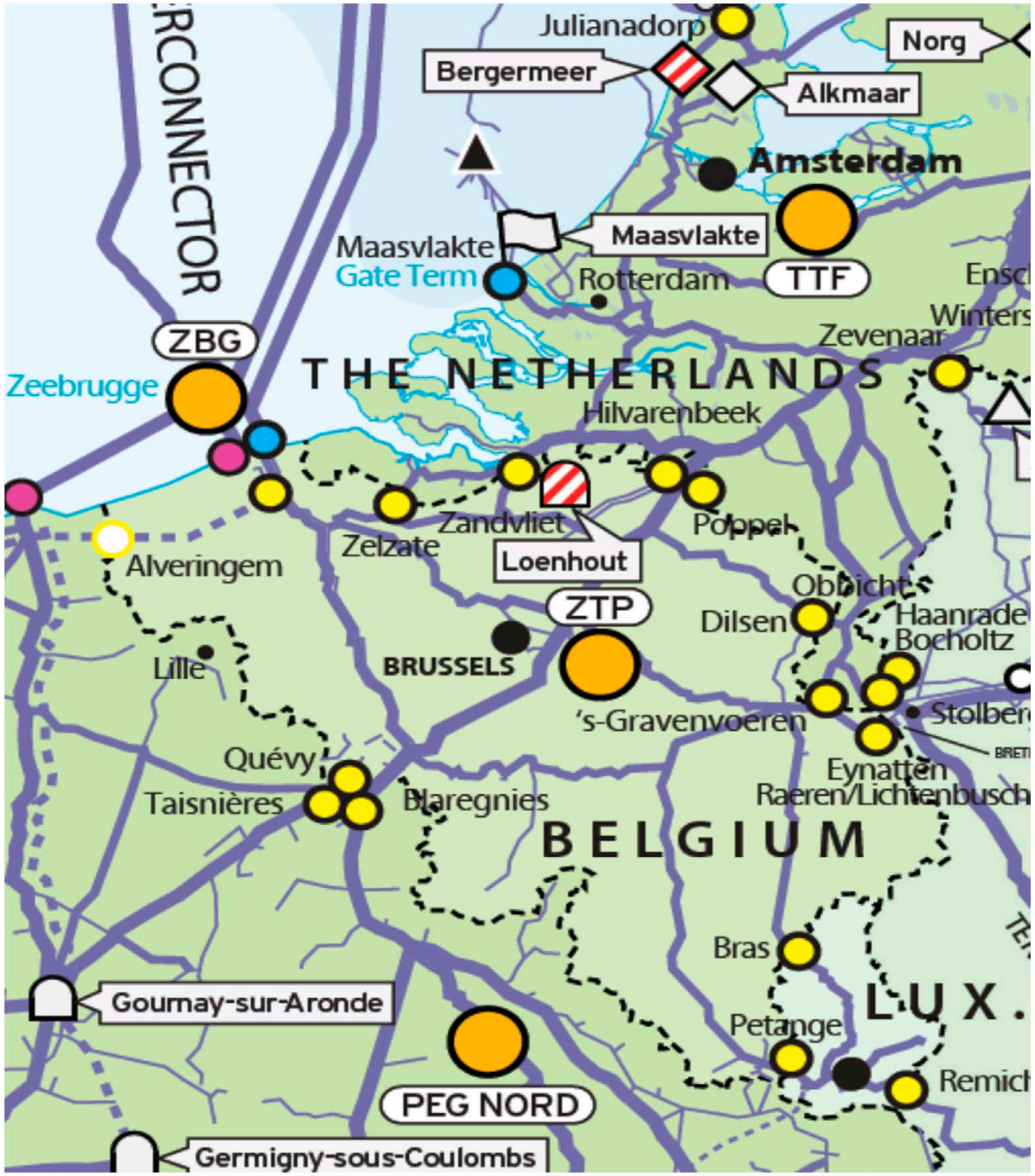
entsog
european network
of transmission system operators
for gas

Gas Regional Investment Plan
2013-2022

North West
GRIP

Annex A

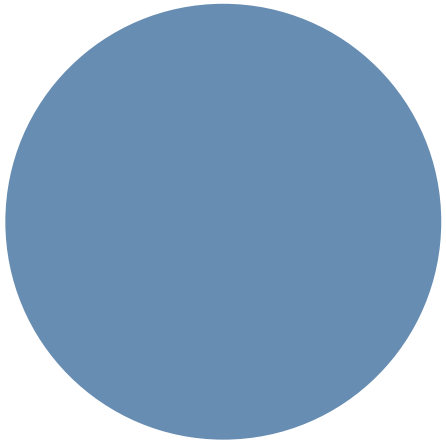
Belgium


Julianadorp
Norg
Bergermeer
Alkmaar
Amsterdam
Maasvlakte
Maasvlakte
Gate Term
Rotterdam
TTF
ZBG
Zeebrugge
THE NETHERLANDS
Zevenaar
Hilvarenbeek
Zandvliet
Loenhout
Poppel
Zelzate
Alveringem
Obbicht
ZTP
Dilsen
Haanrade
Bocholtz
BRUSSELS
Lille
's-Gravenvoeren
Stolberg
Quévy
Eynatten
Taisnières
Blaregnies
Raeren/Lichtenbusch
BELGIUM
Bras
Gournay-sur-Aronde
LUX.
Petange
PEG NORD
Germigny-sous-Coulombs

LNG-N-229	LNG Terminal Zeebrugge - Capacity Extension & 2nd Jetty	Non-FID

LNG Terminal

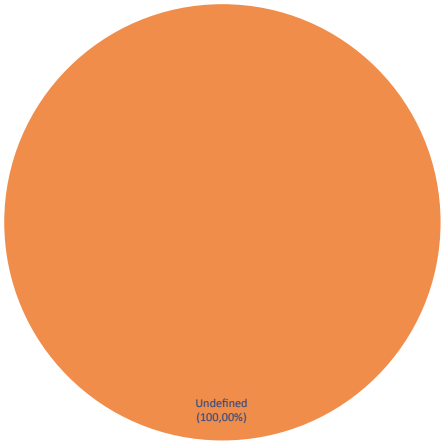
SPONSORS



GENERAL INFORMATION

Promoter	Fluxys LNG
Operator	Fluxys LNG
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

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	2018/2
Last completed Phase :	

TECHNICAL INFORMATION

Regasification facility	LNG Terminal Zeebrugge
Expected volume (bcm/y)	+3,00
Storage capacity (m3)	+180.000,00
Send-out (mcm/d)	+10,80
Ship size (m3)	
Reloading ability ?	Yes

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Zeebrugge LNG	Yes	exit	118,80	LNG Terminals Belgium	Hub Belgium (Zeebrugge Beach)

DESCRIPTION OF THE PROJECT

Construction of a second jetty for berthing of LNG ships with a capacity from approximately 3500 m³ LNG up to 217000 m³ LNG.

Construction of an additional storage tank with a capacity of 180000 m³ LNG.

Construction of additional send-out capacity of 450000 m³(n)/h.

Planned date of commissioning :
- new jetty and send-out : mid 2015 (FID taken, Construction started)
- new LNG tank: Q2 2018

EXPECTED BENEFITS

Security of Supply, Market integration (The increase of capacity will contribute to the integration of market areas in North-West Europe. The overall flexibility of the system is enhanced by the additional LNG storage and the send-out capacity.), Diversification of sources, Diversification of routes, N-1 National (Belgium), N-1 Regional (NW Europe), Back-up for renewables, Higher Flexibility for the market due to enhanced reloading capacity,

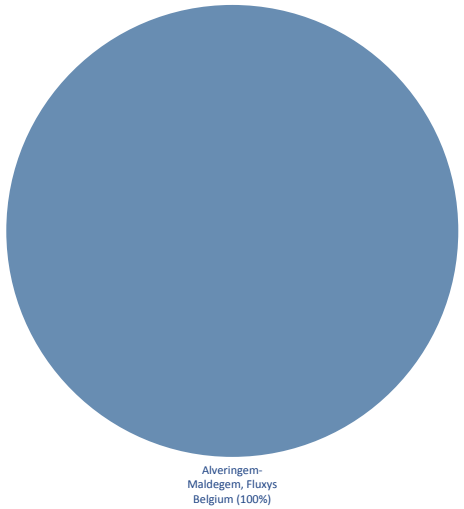
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-205	Alveringem-Maldegem	FID

Pipeline including CS

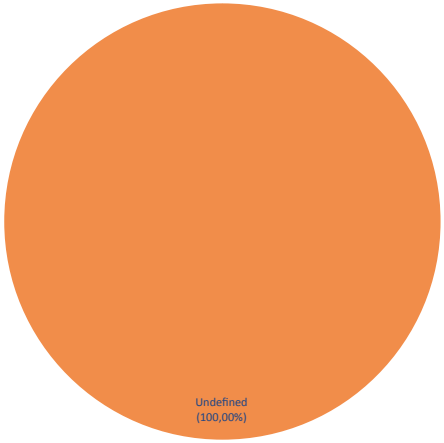
SPONSORS



GENERAL INFORMATION

Promoter	Fluxys Belgium
Operator	Fluxys Belgium
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.fluxys.com/belgium/en/about%20fluxys/investment/projects/alveringem-maldegem.aspx

FINANCING



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

End of permitting phase	2014 Q3
FID	
Construction	2015 Q1
Commissioning	2015/4
Last completed Phase :	

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+74,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
New IP FR-BE (FR) / Alveringem-Maldegem (BE)	Yes	entry	270,00	Hub France (PEG North) (Dunkerque)	Hub Belgium (Zeebrugge Beach)

DESCRIPTION OF THE PROJECT

A new interconnection point between GRTgaz and Fluxys near Veurne (Alveringem) to allow firm physical capacity with non-odorized gas from France to Belgium. Thanks to this new connection, the terminal of Dunkirk will be linked with the IPs of the zone of Zeebrugge (IZT/HUB, ZPT and LNG terminal) and the North-West European market through the virtual hub ZTP.

EXPECTED BENEFITS

Security of Supply, Market integration (This project gives a connection from the LNG terminal of Dunkirk and the PEG-Nord to Belgium and the international markets of North-West Europe.), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Belgium), N-1 Regional (NW Europe), Back-up for renewables,

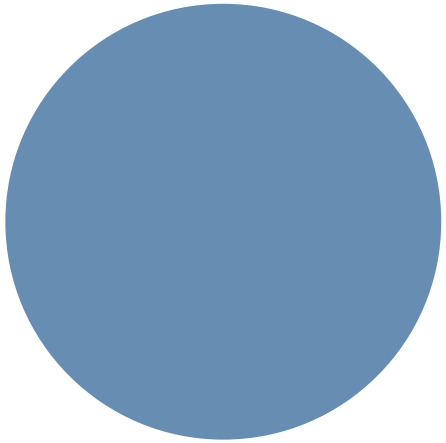
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-206	Luxembourg Pipeline	Non-FID

Pipeline including CS

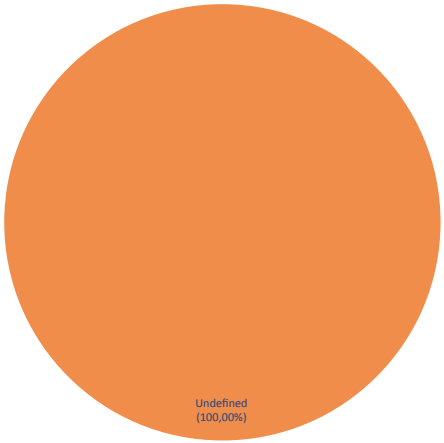
SPONSORS



GENERAL INFORMATION

Promoter	Fluxys Belgium & Creos
Operator	Fluxys Belgium
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



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	
Construction	
Commissioning	2018
Last completed Phase :	

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+50,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Bras/Petange	Yes	exit	10,85	Hub Belgium	Hub Luxemburg

DESCRIPTION OF THE PROJECT

Pipeline upgrade to increase capacity from Belgium to Luxembourg by reinforcing the current DN300 section from Bras to Petange by DN500.

EXPECTED BENEFITS

Security of Supply, Market integration (BE/LUX), Diversification of sources, Diversification of routes, N-1 National (Luxembourg), Back-up for renewables,

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

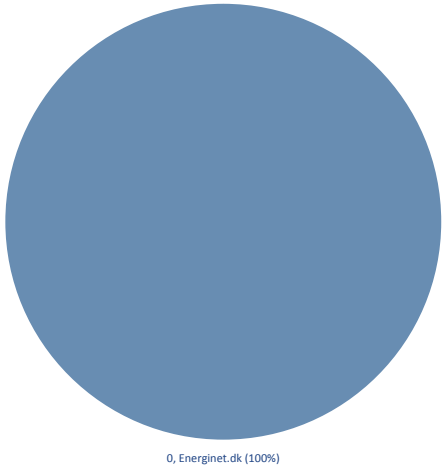
Denmark


Skagerrak
Kattegat
Hirtshals
Aalborg
Göteborg LNG
Varberg
Lille Torup
NPTF
GTF
DENMARK
Nybro
Egtved
Fredericia
COPENHAGEN
Stenlille
Avedore
Ellund
Dornum
DEUDAN
Kiel-Rönne

TRA-F-015	Ellund-Egtved	FID

Pipeline including CS

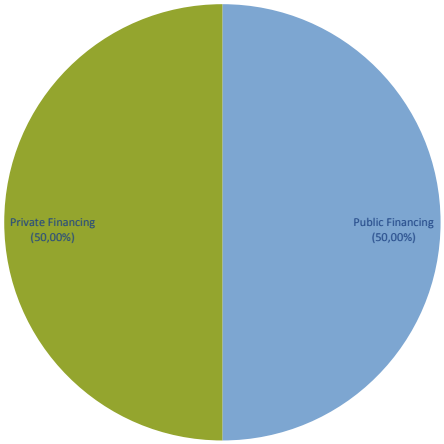
SPONSORS



GENERAL INFORMATION

Promoter	Energinet.dk
Operator	Energinet.dk
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	energinet.dk/EN/ANLAEG-OG-PROJEKTER/Anlaegsprojekter-gas/Ellund-Egtved/Sider/Ellund-Egtved.aspx

FINANCING



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

End of permitting phase	2011
FID	2010 Q2
Construction	2013
Commissioning	2013/4
Last completed Phase :	FID

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+94,00
Total Compressor Power (MW)	+20,00
Expected Load Factor	+0,55

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Dragør	Yes	exit	13,20	Hub Denmark	Hub Sweden
Ellund	Yes	entry	184,80	Hub Denmark (Ellund)	Hub Denmark
	Yes	exit	44,00	Hub Denmark	Hub Denmark (Ellund)

DESCRIPTION OF THE PROJECT

Pipeline looping Ellund-Egtved. Four unit Compressor Station in Egtved. Increases capacity in Ellund and Dragør Interconnection Points.

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, Biogas, The project will ensure supply of gas to the Danish and Swedish markets when the gas production from the Danish North Sea is declining. The project also ensures integration with the gas market in Germany. Furthermore, the project will enhance security of supply also in emergency situations by providing diversification of sources and routes.,

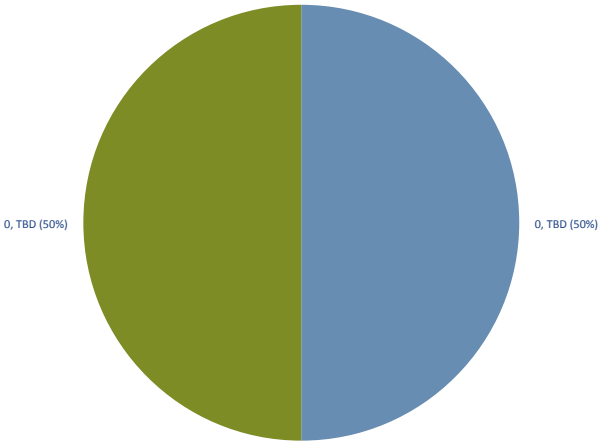
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing
50% European Economic Recovery Programme – expected co-financing of 100 million EUR.	50% Financed by Energinet.dk	

TRA-N-218	Tie-in of Norwegian off-shore natural gas transmission system to Danish off-shore natural gas infrastructure	Non-FID

Pipeline including CS

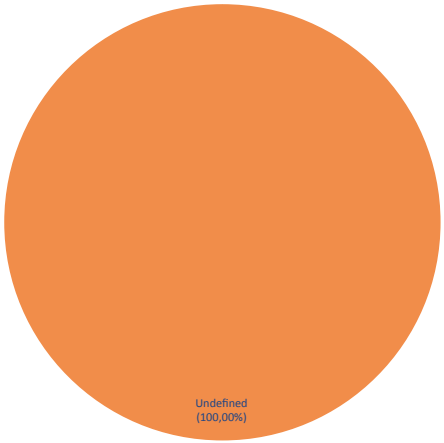
SPONSORS



GENERAL INFORMATION

Promoter	Maersk Oil and Gas AS
Operator	Maersk Oil and Gas A/S
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
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	
Construction	2013
Commissioning	2014/4
Last completed Phase :	FEED

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+175,00
Total Compressor Power (MW)	
Expected Load Factor	+0,80

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Statpipe - NO / Harald platform - DK	Yes	entry	100,00	Supplier Norway	NP Send-out Denmark (Offshore)

DESCRIPTION OF THE PROJECT

To connect the Norwegian off shore natural gas infrastructure (Statpipe) with the Danish off-shore natural gas infrastructure

(Harald platform).

EXPECTED BENEFITS

Security of Supply, Market integration (Norwegian off shore system and Danish/Swedish/German market), Diversification of sources, Diversification of routes, N-1 National (Denmark), Back-up for renewables,

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

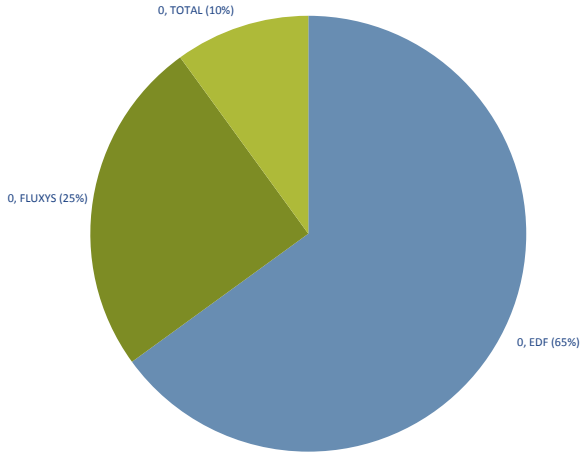
France


ZBG
Zeebrugge
THE NETHERLANDS
Rotterdam
TTF
Gate Term
Portland
Dunkerque
English Channel
Alvaringem
Zelzate
Zandvliet
Loenhout
Hilvarenbeek
Poppel
ZTP
BRUSSELS
Lille
Dilsen
's-Gravenvoeren
Quévy
Taisnières
Blaregnies
BELGIUM
Charbourg
Le Havre
Lannion
Caen
Saint-Clair-sur-Epte
Saint-Illiers
Gournay-sur-Aronde
PEG NORD
Germigny-sous-Coulombs
PARIS
Beynes Profond
Beynes Supérieur
Trois Fontaines
Saint-Arnoult des Bois
Dierrey-Saint-Julien
Cerville
Bras
Petange
LUX.
Remich
Frankenthal
Obergailbach
Medelsheim
Le Mans
Orleans
Montoir de Bretagne
Nantes
Soings-en-Sologne
Chémery
Céré-la-Ronde
LIAISON NORD-SUD
Alsace Sud
Wallbach
Rodersdorf
Basel
BERN
SWITZERL
La Rochelle
FRANCE
PEG SUD
Etrez
Lyon
Le Verdon-sur-Mer
Castillon (Dordogne)
Bordeaux
Hauterives
Tersanne
Grenoble
Brugherio
Torino
PIR-MIDI
GAVIOTA
Gaviota
Bilbao
Izaute
Lussagnet
ARTERE DE L'ADOUR
S.Sebastián
Irun
Biriatou
Lacq
Pau
Toulouse
PEG TIGF
Pamplona
Larrau
Cruzy (Hérault)
Marsaxlokk
Nice
Genova
Logroño
Serrablo
Fos Faster
Fos Tonkin
Fos Cavaou
Marseille
Toulon
Ligurian Sea
AND.
La Panhus
Figueras
Huesca
Gulf of Lion

LNG-F-210	Dunkerque LNG Terminal	FID

LNG Terminal

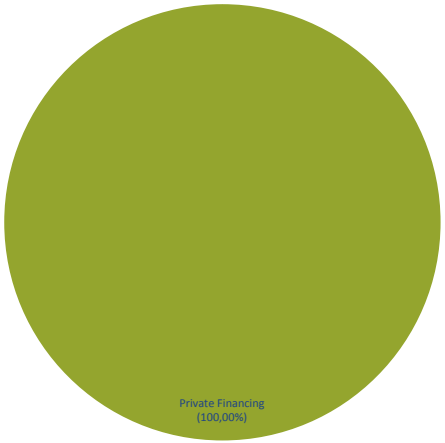
SPONSORS



GENERAL INFORMATION

Promoter	EdF
Operator	Dunkerque LNG
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Yes
Exemption granted ?	Yes
% Exemption in entry direction	100%
% Exemption in exit direction	100%

SCHEDULE

End of permitting phase	2010 Q2
FID	2011 Q2
Construction	2011 Q3
Commissioning	2015/4
Last completed Phase :	FID

TECHNICAL INFORMATION

Regasification facility	Dunkerque LNG
Expected volume (bcm/y)	+13,00
Storage capacity (m3)	+570.000,00
Send-out (mcm/d)	+45,60
Ship size (m3)	267.000,00
Reloading ability ?	Yes

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Dunkerque LNG	Yes	exit	501,60	LNG Terminals France (PEG North)	Hub France (PEG North) (Dunkerque)
Dunkerque LNG / FRn	Yes	exit	519,00	Hub France (PEG North) (Dunkerque)	Hub France (PEG North)
Dunkerque LNG / Avringem - BE	Yes	exit	270,00		

DESCRIPTION OF THE PROJECT

LNG regasification Facility located in Dunkirk

EXPECTED BENEFITS

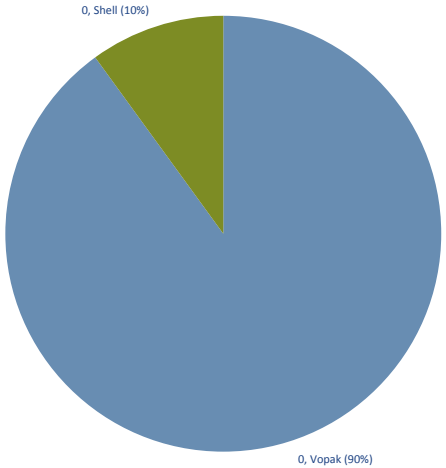
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

LNG-N-223	Fos Faster LNG Terminal	Non-FID

LNG Terminal

SPONSORS

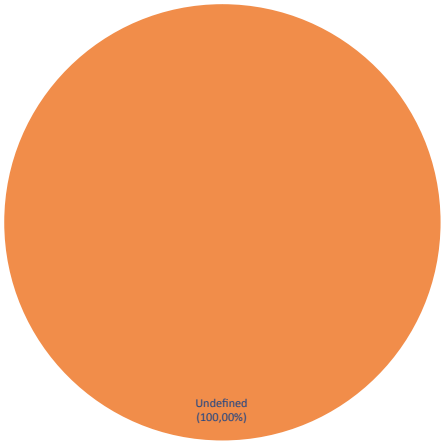


GENERAL INFORMATION

Promoter	Fos Faster LNG
Operator	Fos Faster LNG
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	www.fosfaster.com

TEN-E Requests	Date of Request	Year Funding Granted
		Not yet

FINANCING



THIRD-PARTY ACCESS REGIME

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

End of permitting phase	2015
FID	2015
Construction	2015
Commissioning	2019
Last completed Phase :	Market test

TECHNICAL INFORMATION

Regasification facility	Fos Faster
Expected volume (bcm/y)	+8,00
Storage capacity (m3)	+360.000,00
Send-out (mcm/d)	+24,00
Ship size (m3)	270.000,00
Reloading ability ?	Yes

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Fos Faster	Yes	exit	273,00		

DESCRIPTION OF THE PROJECT

The project aims to build a new LNG terminal at Fos-sur-Mer near Marseille in France with an intial 8bcm/a capacity (up to 16 bcm/a) allowing all type of LNG carriers.

Our projected terminal is dedicated to be an independent, opened and multi-customers terminal, including aa full range of small scale services

EXPECTED BENEFITS

Security of Supply, Market integration (South Of France), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (France), N-1 Regional (Western Europe (Spain, Italy, Switzerland)), Back-up for renewables, To diversify the sources of supply
To debottleneck the South of France
To open an independent and multi customers terminal and thus contribute to the market opening
To support the development of LNG Small scale activities (road-transported LNG, LNG transported to isolated markets such as islands, LNG as a fuel for trucks and vessels),

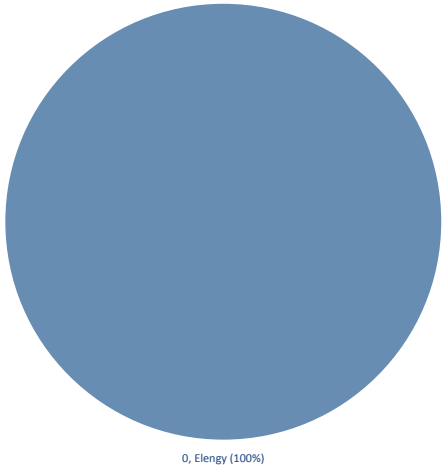
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

LNG-N-225	Montoir LNG Terminal Expansion	Non-FID

LNG Terminal

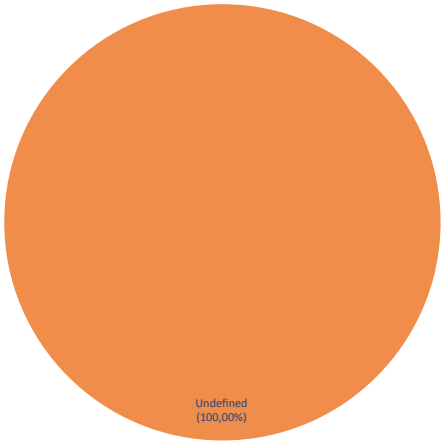
SPONSORS



GENERAL INFORMATION

Promoter	Elengy
Operator	Elengy
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	www.elengy.com/en/projects/montoir-extension.html

FINANCING



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	2016 Q1
FID	2016 Q1
Construction	2016 Q2
Commissioning	2019/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

Regasification facility	Montoir LNG Terminal
Expected volume (bcm/y)	+6,50
Storage capacity (m3)	+190.000,00
Send-out (mcm/d)	+20,00
Ship size (m3)	265.000,00
Reloading ability ?	Yes

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Montoir de Bretagne	Yes	exit	220,00	LNG Terminals France (PEG North)	Hub France (PEG North)

DESCRIPTION OF THE PROJECT

The project aims to expand the LNG terminal capacity from 10 to 16.5 bcm/y through the construction of regasification units and storage tanks.

EXPECTED BENEFITS

Security of Supply, Market integration (see "A1" and "A2" at raw 160-161), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (France), N-1 Regional (France, Germany, Benelux countries, Switzerland, Italy (Northern)), Back-up for renewables, Thanks to its location, Montoir LNG terminal is, from every points of view, one of the best entry gate in Western Europe for LNG coming from all over the world toward the core of the European gas market in particular France, Germany, Benelux countries, as well as Switzerland and Northern Italy (through Switzerland). In particular, the project is very well located to receive LNG from North America where LNG liquefaction is developping rapidly.
Indeed, LNG has the tremendous advantage of being able to be efficiently delivered closest to the point of consumption, by optimizing pipeline and sea transportation.
Moreover, the recent development of reloading services has significantly increased the fonctionalities of the LNG terminals, enabling them to offer possibilities equivalent to reverse flows, in addition to the classical uses.

A1: The project will strongly contribute to linking Northern and Southern European markets, through the hubs to which it give access in the North (France, Germany, Benelux countries, Switzerland, Northern Italy), and through "flexible floating pipeline", ie ship tranfers, from and to the South (in particular Spain and Portugal).
A2: The project will also enable to free up significant part of the already existing / under construction pipeline interconnection capacity between Spain and France, so that this capacity can be first and foremost utilized for short term trading.

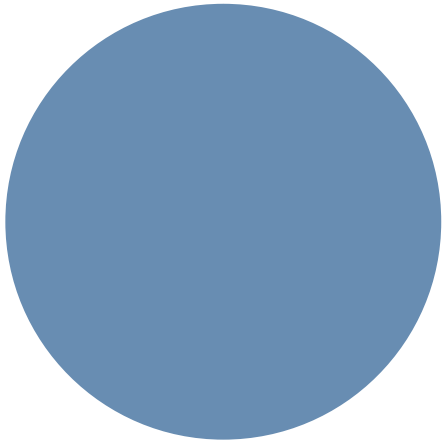
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

LNG-N-226	Fos Tonkin LNG Terminal Expansion	Non-FID

LNG Terminal

SPONSORS

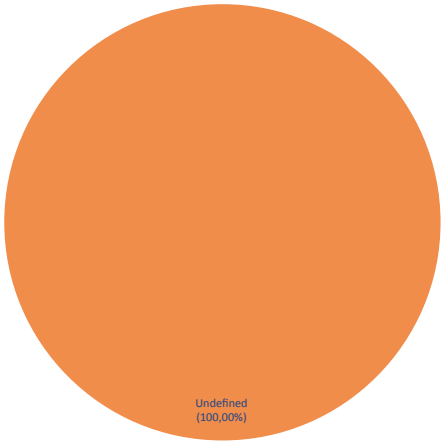


GENERAL INFORMATION

Promoter	Elengy
Operator	Elengy
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	No
IGAs	None
Web Link	www.elengy.com/en/projects/fos-tonkin-open-season.html

TEN-E Requests	Date of Request	Year Funding Granted
	28/02/11	Not yet

FINANCING



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	2015 Q3
FID	2015 Q3
Construction	2016 Q2
Commissioning	2019/4
Last completed Phase :	Market test

TECHNICAL INFORMATION

Regasification facility	Fos Tonkin LNG Terminal
Expected volume (bcm/y)	+2,50
Storage capacity (m3)	+80.000,00
Send-out (mcm/d)	+7,60
Ship size (m3)	75.000,00
Reloading ability ?	Yes

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Fos Tonkin	Yes	exit	132,00	LNG Terminals France (PEG South)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

The project aims to prolong the operation of the LNG terminal till 2035 and to expand its capacity to 5.5 bcm/y through in particular the construction of a new LNG storage tank.

EXPECTED BENEFITS

Security of Supply, Market integration (see "A1" and "A2" at raws 160 -161), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (France), N-1 Regional (France, Germany, Benelux countries, Switzerland, Italy (Northern)

), Back-up for renewables, Thanks to its location, the project is an excellent entry gate in Western Europe for LNG coming from the Mediterranean basin, toward the core of the European gas market in particular France, Germany, Benelux countries as well as Switzerland and Northern Italy. The project is in particular very well adapted to receive LNG from Skikda (Algeria) where a new LNG liquefaction plant of 5.5 bcm/y dedicated to vessels up 75 000 m3 (up to Medmax vessels, exactly like Fos Tonkin LNG terminal), has recently started.
Indeed, LNG has the tremendous advantage of being able to be efficiently delivered closest to the point of consumption, by optimizing pipeline and sea transportation.
Moreover, the project of reloading services will significantly increased the fonctionalities of the LNG terminal, enabling it to offer possibilities equivalent to reverse flows, in addition to the classical uses.

A1: The project will strongly contribute to linking Northern and Southern European markets, through the hubs to which it give access in the North (France, Germany, Benelux countries, Switzerland, Northern Italy), and through "flexible floating pipeline", ie ship tranfers, from and to the South (in particular Spain Italy, Malta and even Greece).

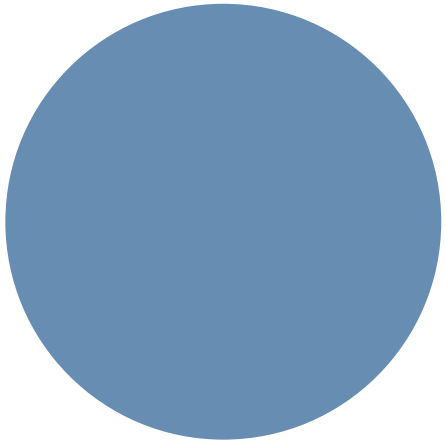
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

LNG-N-227	Fos Cavaou LNG Terminal Expansion	Non-FID

LNG Terminal

SPONSORS

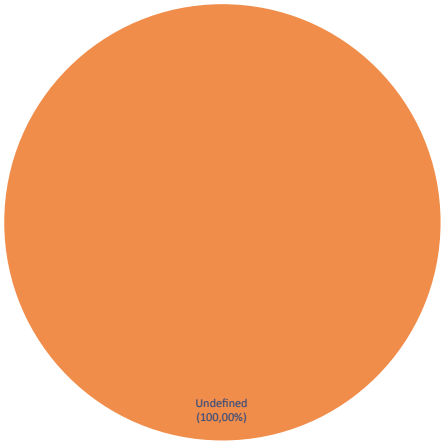


GENERAL INFORMATION

Promoter	Elengy
Operator	Fosmax LNG
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.fosmax-lng.com/en/who-are-we/projet-de-developpement.html

TEN-E Requests	Date of Request	Year Funding Granted
	20/02/13	Not yet

FINANCING



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	2016 Q2
FID	2016 Q2
Construction	2016 Q2
Commissioning	2020/2
Last completed Phase :	Planned

TECHNICAL INFORMATION

Regasification facility	Fos Cavaou LNG Terminal
Expected volume (bcm/y)	+8,25
Storage capacity (m3)	+220.000,00
Send-out (mcm/d)	+28,00
Ship size (m3)	270.000,00
Reloading ability ?	Yes

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Fos Cavaou	Yes	exit	308,00	LNG Terminals France (PEG South)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

The project aims to expand the LNG terminal capacity from 8.25 to 16.5 bcm/y through the construction of regasification units and storage tanks.

EXPECTED BENEFITS

Security of Supply, Market integration (see "A1" and "A2" at raw 160-161), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (France), N-1 Regional (France, Germany, Benelux countries, Switzerland, Italy (Northern)), Back-up for renewables, Thanks to its location, Fos Cavaou LNG terminal it is from every points of view, the best entry gate in Western Europe for LNG coming from the Mediterranean basin and the Middle East (which represent more than 45% of the world LNG production), toward the core of the European gas market in particular France, Germany, Benelux countries, as well as Switzerland and Northern Italy (through Switzerland). In addition, Fos Cavaou LNG terminal is also one of the best entry gate in Western Europe for gas coming from the Atlantic bassin toward the core of the European gas market.
Indeed, LNG has the tremendous advantage of being able to be efficiently delivered closest to the point of consomption, by optimizing pipeline and sea transportation.
Moreover, the recent development of reloading services has significantly increased the fonctionalities of the LNG terminals, enabling them to offer possibilities equivalent to reverse flows, in addition to the classical uses.

A1: The project will strongly contribute to linking Northern and Southern European markets, through the hubs to which it give access in the North (France, Germany, Benelux countries, Switzerland, Northern Italy), and through "flexible floating pipeline", ie ship tranfers, from and to the South (Spain, Italy, Greece, Malta in the future).
A2: The project will also enable to free up significant part of the already existing / under construction pipeline interconnection capacity between Spain and France, so that this capacity can be first and foremost utilized for short term trading.

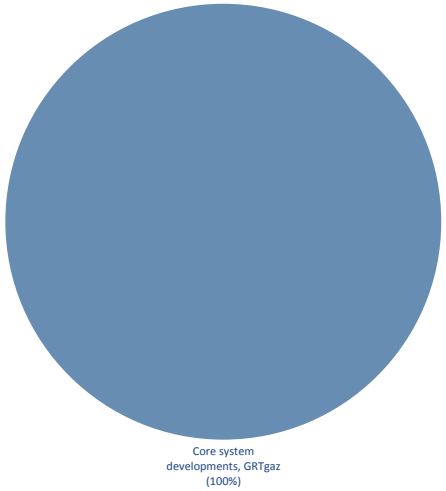
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-036	Arc de Dierrey	FID

Pipeline including CS

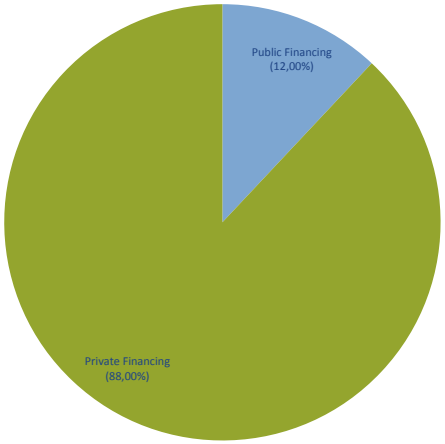
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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

End of permitting phase	2014
FID	2011 Q4
Construction	2014
Commissioning	2016
Last completed Phase :	FID

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+308,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Liaison Nord Sud	Yes	entry	0,00	Hub France (PEG North)	Hub France (PEG South)
Oltingue (FR) / Rodersdorf (CH)	Yes	exit	0,00	Hub France (PEG North)	Hub Switzerland
Medelsheim (DE) / Obergailbach (FR)	Yes	exit	0,00	Hub France (PEG North)	Hub France (PEG North) (Obergailbach)
Dunkerque LNG / FRn	Yes	entry	0,00	Hub France (PEG North) (Dunkerque)	Hub France (PEG North)
Liaison Nord Sud	Yes	exit	0,00	Hub France (PEG South)	Hub France (PEG North)

DESCRIPTION OF THE PROJECT

This core system development is necessary for several projects in the North (Dunkerque LNG terminal, Merger of the North and South zones, Reverse capacity at Obergailbach, capacities increase at Oltingue)

EXPECTED BENEFITS

Security of Supply, Market integration (France, Germany, Switzerland/Italy), Reverse Flows, Diversification of sources, Diversification of routes,

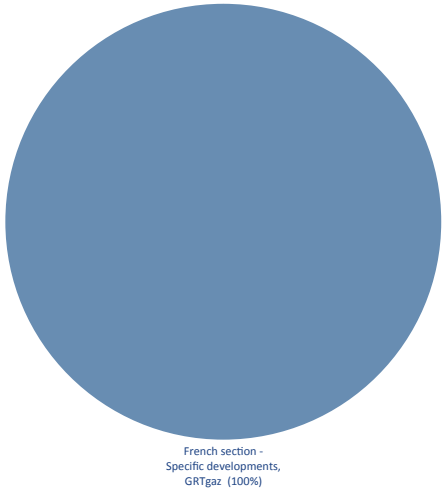
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-037	Entry capacity increase from Belgium to France	FID

Pipeline including CS

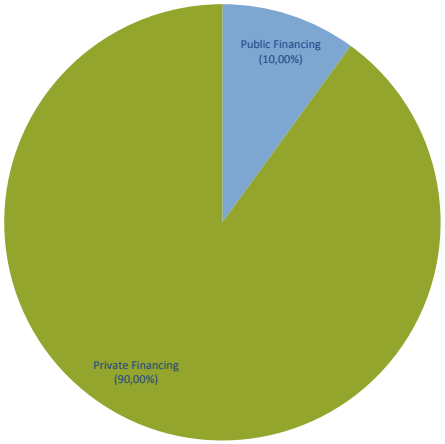
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	2012
FID	2010 Q2
Construction	2012
Commissioning	2013/4
Last completed Phase :	Permitting

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+51,00
Total Compressor Power (MW)	+8,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Blarégnies (BE) / Taisnières (H) (FR) (Segeo/Troll)	Yes	entry	50,00	Hub Belgium	Hub France (PEG North)

DESCRIPTION OF THE PROJECT

Transmission systems development(s) in FR (and BE) to increase entry capacity in FR at Taisnières (from 590 to 640 GWh/d) - OS in 2009/2010

EXPECTED BENEFITS

Security of Supply, Market integration (France and Belgium),

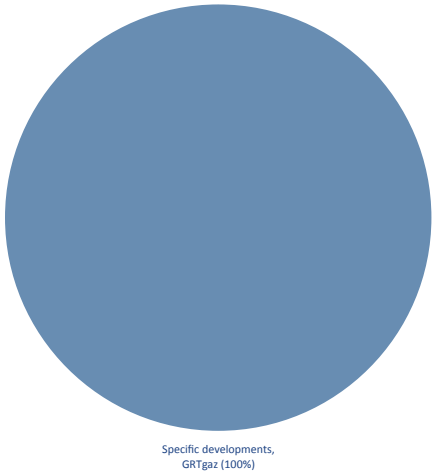
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-038	Developments for the Dunkerque LNG new terminal	FID

Pipeline including CS

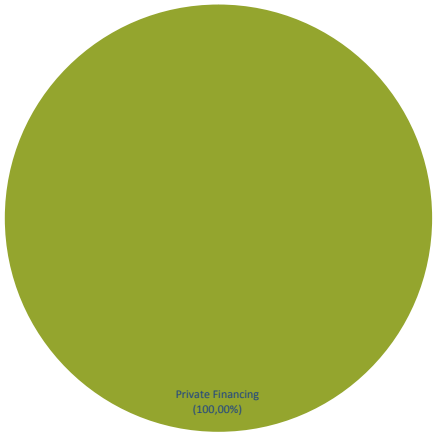
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	2013
FID	2011 Q4
Construction	2013
Commissioning	2015/4
Last completed Phase :	FEED

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+142,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	**Modelled**	**Direction**	**Capacity (GWh/d)**	**From Zone**	**To Zone**
Dunkerque LNG / FRn	**Yes**	**entry**	**250,00**	**Hub France (PEG North) (Dunkerque)**	**Hub France (PEG North)**

DESCRIPTION OF THE PROJECT

The connection of the terminal needs spécific transmission system developement and core system developements (Arc de Dierrey)

EXPECTED BENEFITS

Security of Supply, Market integration (France and Belgium), Diversification of sources, Diversification of routes,

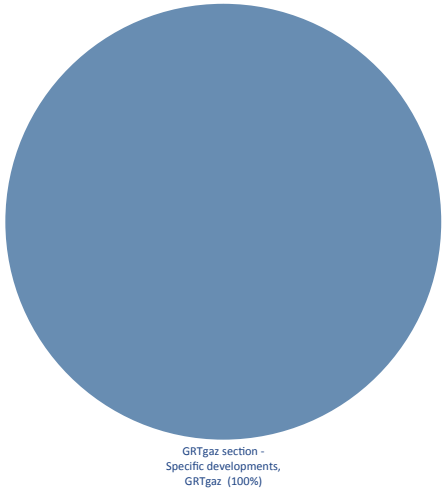
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-039	Iberian-French corridor: Western Axis (CS Chazelles)	FID

Pipeline including CS

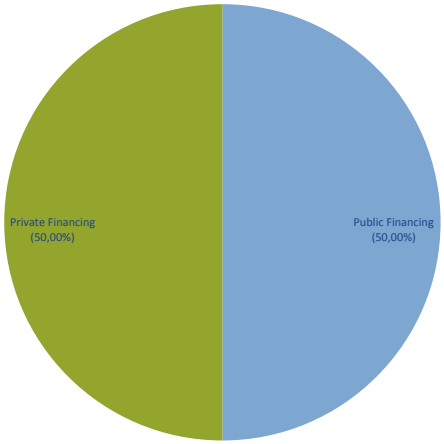
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	2012
FID	2010 Q1
Construction	2012
Commissioning	2013/1
Last completed Phase :	Permitting

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total Compressor Power (MW)	+36,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
PIR MIDI	Yes	exit	70,00	Hub France (PEG South)	Hub France (PEG TIGF)
	Yes	entry	175,00	Hub France (PEG TIGF)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

GRTgaz contribution to the transmission systems developments to develop FR-ES IP at Larrau and Biriatou, OS in 2009/2010

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

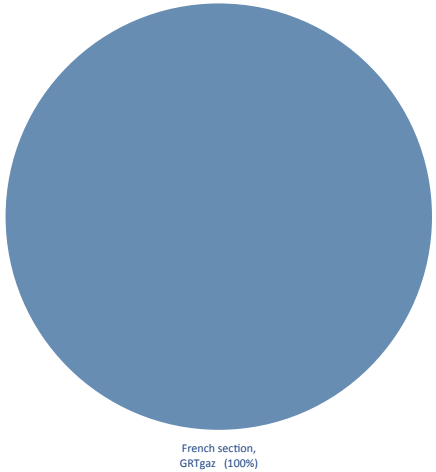
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-040	Reverse capacity from France to Belgium at Veurne	FID

Pipeline including CS

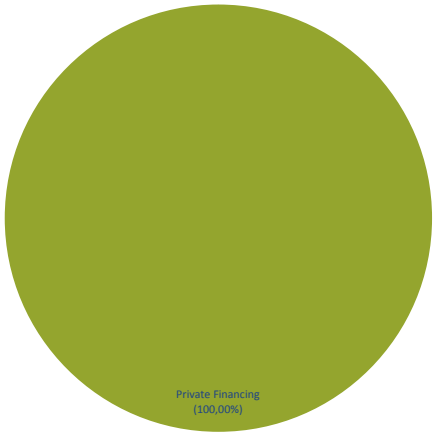
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	2014
FID	2012 Q2
Construction	2014
Commissioning	2015/4
Last completed Phase :	FID

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+26,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	**Modelled**	**Direction**	**Capacity (GWh/d)**	**From Zone**	**To Zone**
New IP FR-BE (FR) / Alveringem-Maldegem (BE)	**Yes**	**exit**	**270,00**	**Hub France (PEG North) (Dunkerque)**	**Hub Belgium (Zeebrugge Beach)**

DESCRIPTION OF THE PROJECT

New IP near Veurne between GRTgaz and Fluxys with capacity from FR to BE

EXPECTED BENEFITS

Security of Supply, Market integration, Reverse Flows,

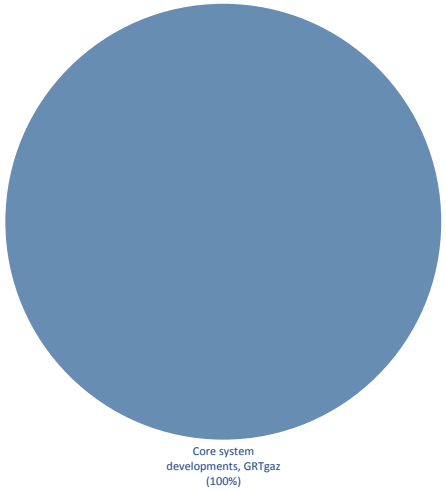
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-041	Eridan	FID

Pipeline including CS

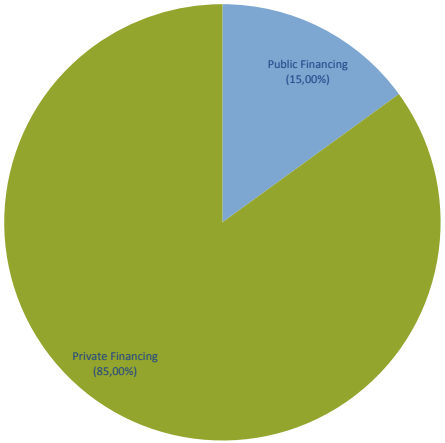
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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

End of permitting phase	2015
FID	2011
Construction	2015
Commissioning	2017
Last completed Phase :	FID

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Liaison Nord Sud	Yes	exit	0,00	Hub France (PEG South)	Hub France (PEG North)
	Yes	entry	0,00	Hub France (PEG North)	Hub France (PEG South)
PIR MIDI	Yes	exit	0,00	Hub France (PEG South)	Hub France (PEG TIGF)
	Yes	entry	0,00	Hub France (PEG TIGF)	Hub France (PEG South)
Fos (Tonkin/Cavaou)	Yes	entry	0,00	LNG Terminals France (PEG South)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

This development of the core transmission system, Saint Martin de Crau - Saint Avit pipeline, is necessary for entry/exit capacity increases in the South zone and to merge the North an South zones.

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

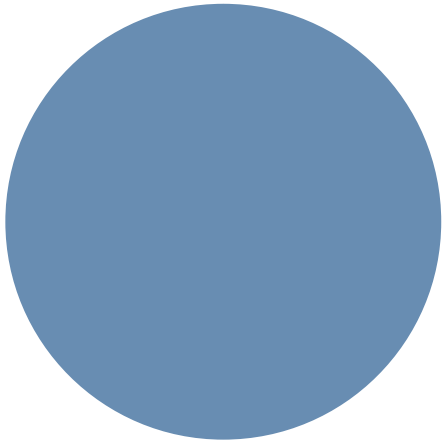
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing
EEPR		

TRA-F-250	Girland - Artère de Guyenne Phase B	FID

Pipeline including CS

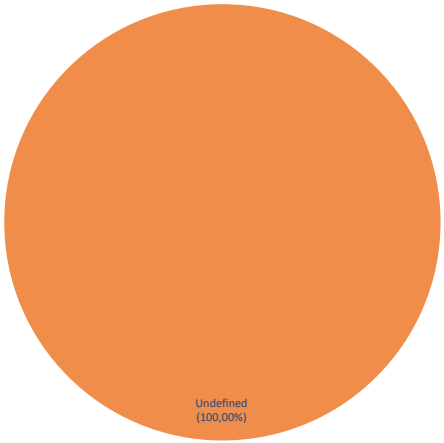
SPONSORS



GENERAL INFORMATION

Promoter	TIGF
Operator	TIGF
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	www.tigf.fr

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 Q3
FID	2010 Q1
Construction	2012 Q4
Commissioning	2013/3
Last completed Phase :	Construction

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+58,00
Total Compressor Power (MW)	+5,50
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
PIR MIDI	Yes	exit	175,00	Hub France (PEG TIGF)	Hub France (PEG South)
	No	entry	185,00	Hub France (PEG South)	Hub France (PEG TIGF)
PIR MIDI	Yes	entry	70,00	Hub France (PEG South)	Hub France (PEG TIGF)
	No	exit	180,00	Hub France (PEG TIGF)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

It's a DN 900 and 58 km long pipeline that conects the UGS of Lussagnet with Captieux with an additional compression at Sauveterre (that has been decided in June)

EXPECTED BENEFITS

Security of Supply,

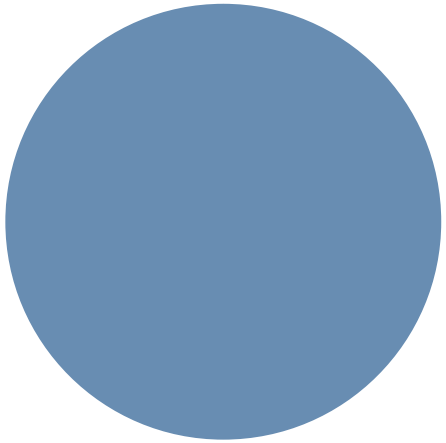
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-251	Artère de l'Adour (former Euskadour) (FR-ES interconnection)	FID

Pipeline including CS

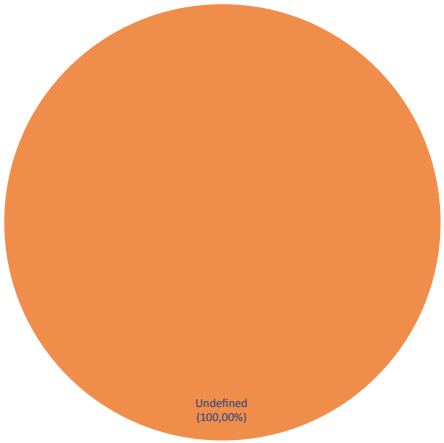
SPONSORS



GENERAL INFORMATION

Promoter	TIGF
Operator	TIGF
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.artere-adour-tigf.fr

FINANCING



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	2014 Q1
FID	2012 Q1
Construction	2014 Q3
Commissioning	2015/4
Last completed Phase :	FEED

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+95,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Biriatou (FR) / Irun (ES)	Yes	exit	60,00	Hub France (PEG TIGF)	Hub Spain
	Yes	entry	55,00	Hub Spain	Hub France (PEG TIGF)

DESCRIPTION OF THE PROJECT

It's a 24 inches and 95 km long pipeline between Arcangues and Coudures that will allow to connect (using the existing infrastructure) the UGS of Lussagnet with the Spanish frontier.

EXPECTED BENEFITS

Security of Supply, This project will create the bidirectional gas s flow between France and Spain by increasing the transport capacity.,

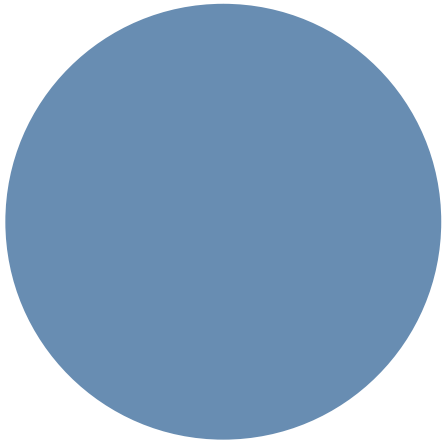
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-042	New interconnection IT-FR to connect Corsica	Non-FID

Pipeline including CS

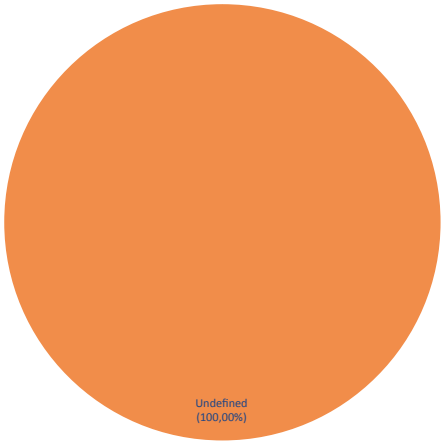
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+320,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Porto-Vecchio	No	entry	20,00	Hub Italia (Sardinia)	Hub France (Corsica)

DESCRIPTION OF THE PROJECT

This project is linked to the GALSI project and includes an offshore pipeline from Sardinia to Corsica and onshore pipelines in Corsica

EXPECTED BENEFITS

Security of Supply, Market integration, Back-up for renewables, Access to Natural gas for Corsica,

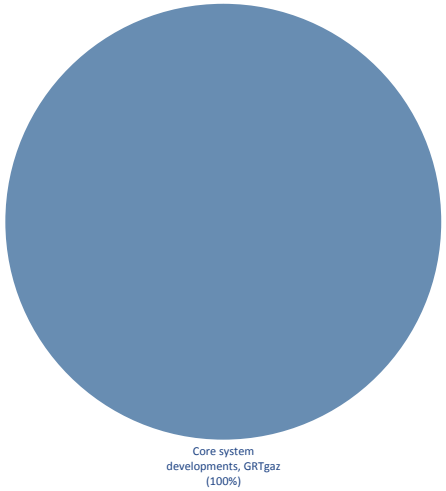
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing
Expected		

TRA-N-043	Val de Saône project	Non-FID

Pipeline including CS

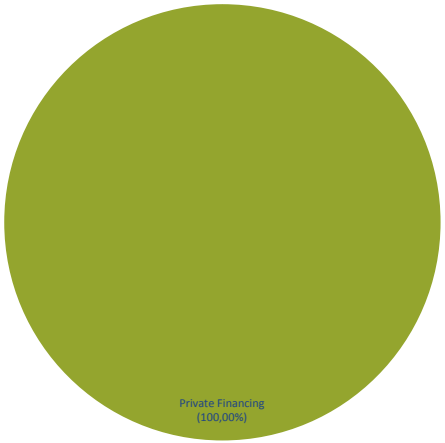
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+190,00
Total Compressor Power (MW)	+9,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Liaison Nord Sud	Yes	exit	999,00	Hub France (PEG South)	Hub France (PEG North)
	Yes	entry	999,00	Hub France (PEG North)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

This reinforcement of the French Network consists in the looping of the Bourgogne pipeline (between Etrez and Voisines). In addition to the projetcs Arc de Dierrey in the North and ERIDAN in the South, this project is needed to merge GRTgaz's North and South market zones.

EXPECTED BENEFITS

Security of Supply, Market integration,

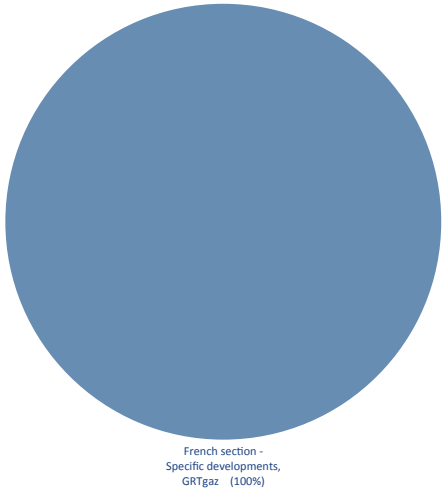
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-044	New interconnection to Luxembourg	Non-FID

Pipeline including CS

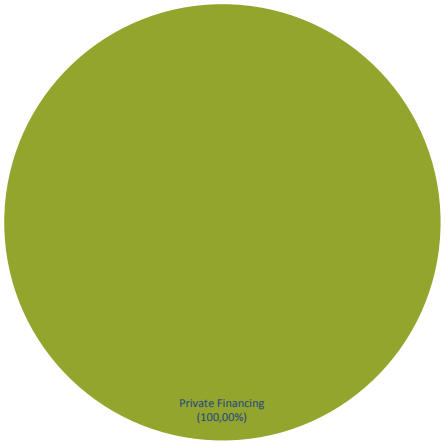
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	www.grtgaz.com/en/home/major-projects/plan-decennal/10-year-development/

FINANCING



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	
Construction	
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+71,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
New IP France/Luxemburg	Yes	exit	40,00	Hub France (PEG North)	Hub Luxemburg
	Yes	exit	9,00	Hub France (PEG North)	Hub Luxemburg

DESCRIPTION OF THE PROJECT

New interconnection for additional firm entry capacitiy from France to Luxembourg

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

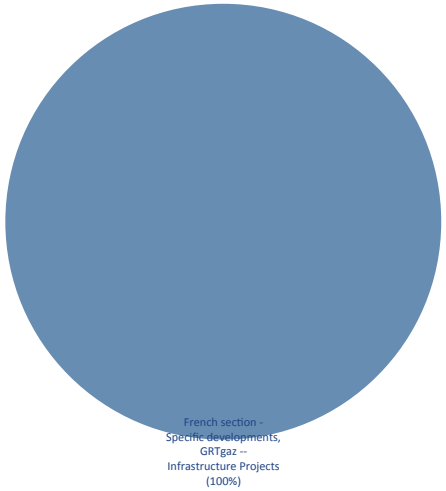
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-045	Reverse capacity from CH to FR at Oltingue	Non-FID

Pipeline including CS

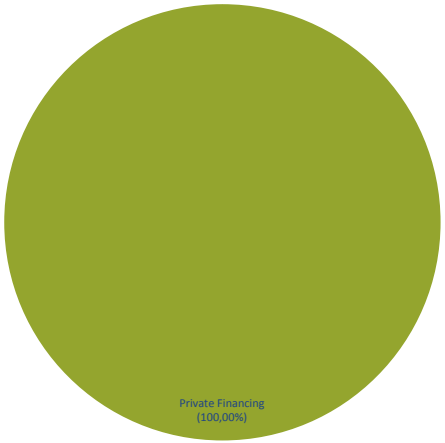
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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

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

TECHNICAL INFORMATION

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

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

DESCRIPTION OF THE PROJECT

Developements needed to create this reverse capacity

EXPECTED BENEFITS

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes,

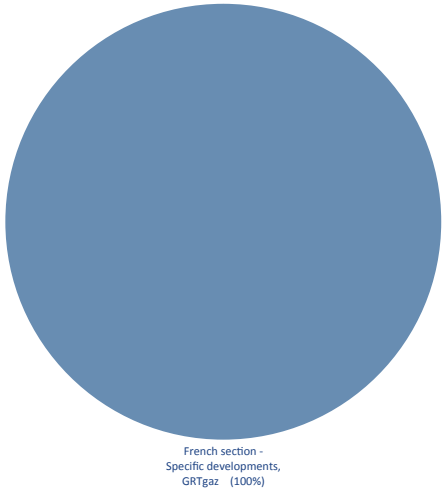
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-046	Exit capacity increase to CH at Oltingue	Non-FID

Pipeline including CS

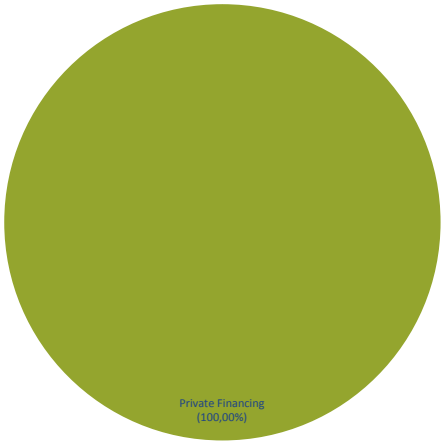
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	
Construction	
Commissioning	2022
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	3
Total Pipeline Length (km)	
Total Compressor Power (MW)	+30,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Oltingue (FR) / Rodersdorf (CH)	Yes	exit	100,00	Hub France (PEG North)	Hub Switzerland
	No	exit	40,00	Hub France (PEG North)	Hub Switzerland

DESCRIPTION OF THE PROJECT

Specific transmission system develpements to increase exit capacity to CH (design to confirm according to the market demand)

EXPECTED BENEFITS

Security of Supply, Market integration,

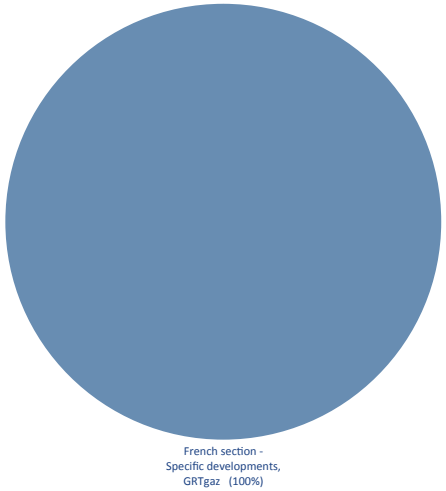
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-047	Reverse capacity from France to Germany at Obergailbach	Non-FID

Pipeline including CS

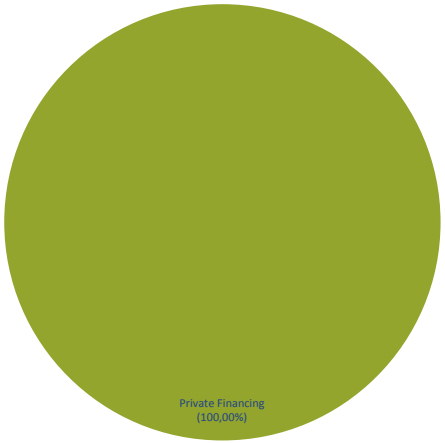
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	
Construction	
Commissioning	2020
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+60,00
Total Compressor Power (MW)	+42,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Medelsheim (DE) / Obergailbach (FR)	Yes	exit	100,00	Hub France (PEG North)	Hub France (PEG North) (Obergailbach)
	No	exit	180,00	Hub France (PEG North)	Hub France (PEG North) (Obergailbach)
Medelsheim (DE) / Obergailbach (FR)	No	exit	250,00	Hub France (PEG North)	Hub France (PEG North) (Obergailbach)

DESCRIPTION OF THE PROJECT

This project includes pipelines (including compression) and changes in the odorisation system (replacing odoristaion stations at the entry of the transmission system by odorisation stations at the entry of the regional networks)

EXPECTED BENEFITS

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes,

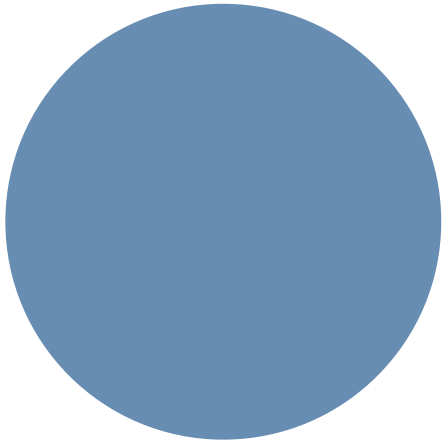
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-048	Developments for Montoir LNG terminal expansion at 12,5bcm - 1	Non-FID

Pipeline including CS

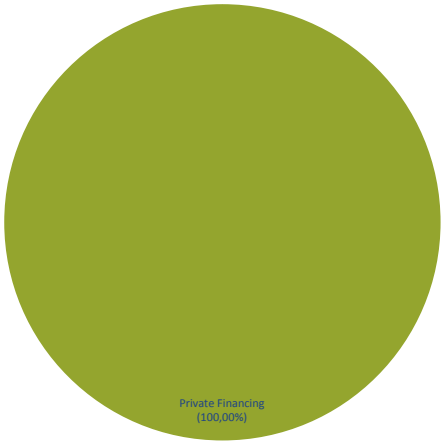
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+63,00
Total Compressor Power (MW)	+10,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Montoir de Bretagne	Yes	entry	55,00	LNG Terminals France (PEG North)	Hub France (PEG North)

DESCRIPTION OF THE PROJECT

This entry capacity increase at Montoir only needs specific developments.

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes,

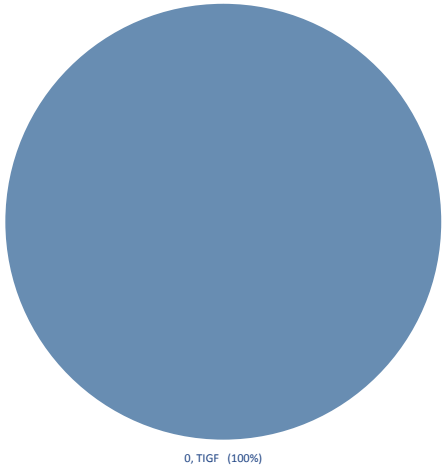
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-252	Iberian-French corridor: Eastern Axis-Midcat Project	Non-FID

Pipeline including CS

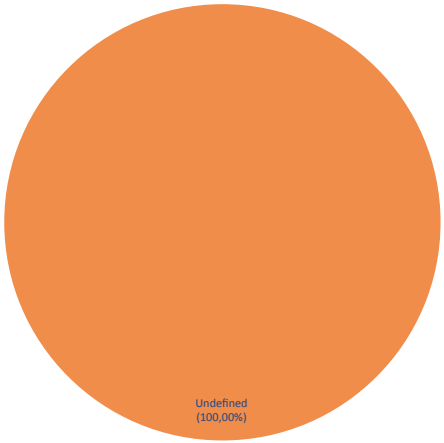
SPONSORS



GENERAL INFORMATION

Promoter	TIGF
Operator	TIGF
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	www.tigf.fr

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	2020
Last completed Phase :	

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+148,00
Total Compressor Power (MW)	+10,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Le Perthus	Yes	exit	80,00	Hub France (PEG TIGF)	Hub Spain
	Yes	entry	230,00	Hub Spain	Hub France (PEG TIGF)

DESCRIPTION OF THE PROJECT

In the French side, it's composed by a 120 km long pipeline between the frontier (near Le Perthus) and the CS of Barbaira, the installation of an aditional compression of 10 MW at Barbaira, and a 28 km long pipeline between Lupiac and Baran (Artère du Gascogne).

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,

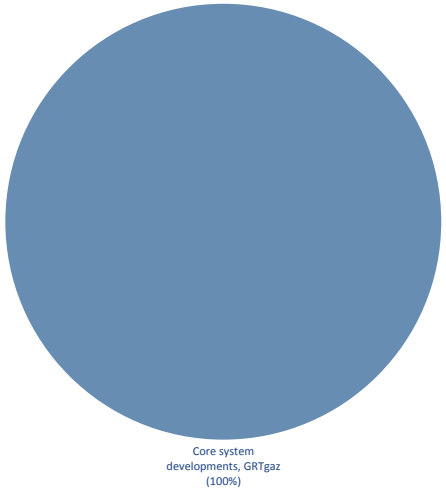
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-253	Est Lyonnais pipeline	Non-FID

Pipeline including CS

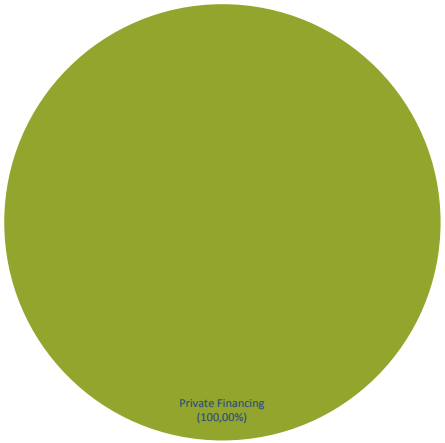
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	2015
Construction	
Commissioning	2019
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	3
Total Pipeline Length (km)	+170,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Fos (Tonkin/Cavaou)	Yes	entry	0,00	LNG Terminals France (PEG South)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

This development of the core transmision system is necessary to develop entry capacity in the South (Fos Projects, IP with spain, storages) and contribute to the South-North corridor in Western Europe

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

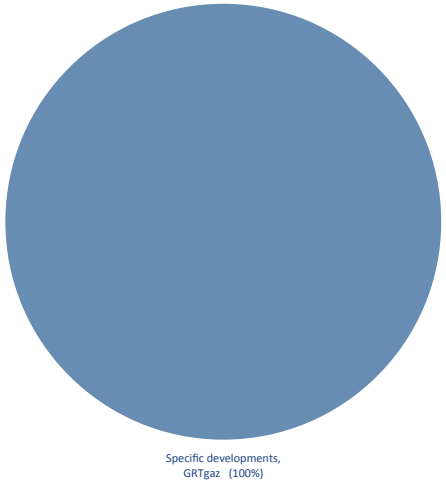
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-254	Developments for the Fos faster LNG new terminal	Non-FID

Pipeline including CS

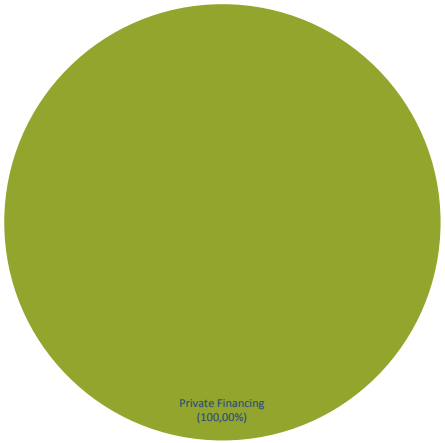
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	2015
Construction	
Commissioning	2019
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Fos (Tonkin/Cavaou)	Yes	entry	255,00	LNG Terminals France (PEG South)	Hub France (PEG South)
	No	entry	383,00	LNG Terminals France (PEG South)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

In addition to this specific connection, the reinforcement of the core transmission system is also needed (ERIDAN, East Lyonnais pipeline,Bourgogne and/or compressions depending on the developments already realized)

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

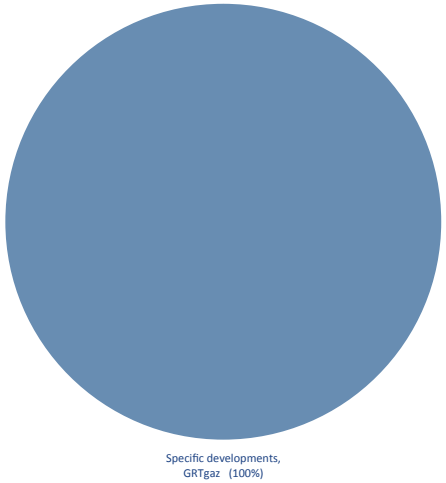
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-255	Fos Tonkin LNG expansion	Non-FID

Pipeline including CS

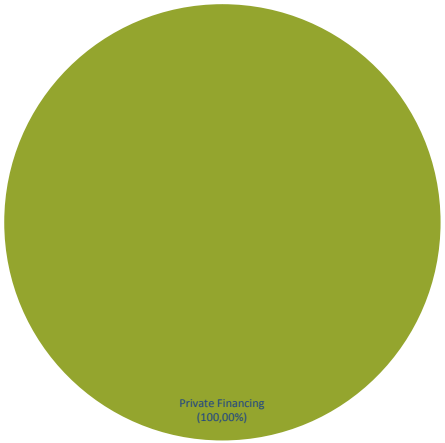
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	no
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	
Construction	
Commissioning	2019
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Fos (Tonkin/Cavaou)	Yes	entry	80,00	LNG Terminals France (PEG South)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

Only core system developments are needed for this expansion : they will depend on the other entry capacity increases in the South zone

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

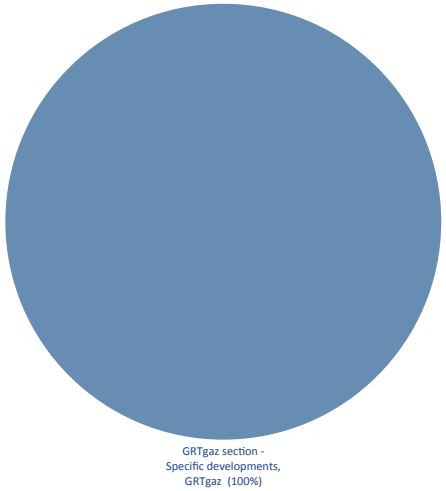
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-256	Iberian-French corridor: Eastern Axis-Midcat Project (CS Montpellier and CS Saint Martin de Crau)	Non-FID

Pipeline including CS

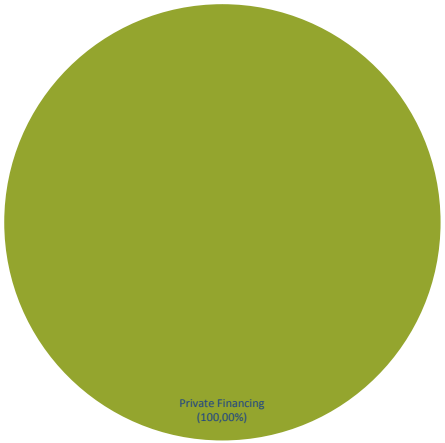
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	yes
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	
Construction	
Commissioning	2020
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
PIR MIDI	Yes	exit	80,00	Hub France (PEG South)	Hub France (PEG TIGF)
	Yes	entry	230,00	Hub France (PEG TIGF)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

GRTgaz contribution to develop a new FR-ES IP on the Eastern axis -MidCat. In addition to these specific developments, the reinforcement of the core transmission system is also needed (ERIDAN, Arc Lyonnais pipeline, Val de Saône project and/or compressions depending on the developments already realized)

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

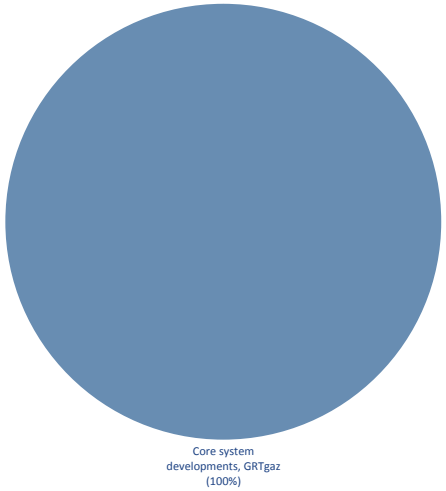
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-257	New line Between Chemery and Dierrey	Non-FID

Pipeline including CS

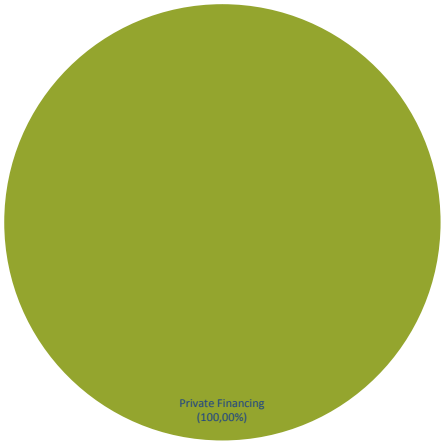
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2021
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Montoir de Bretagne	Yes	entry	0,00	LNG Terminals France (PEG North)	Hub France (PEG North)

DESCRIPTION OF THE PROJECT

This core system development develop West-East capacity transit necessary for Montoir LNG terminal expansion2 and firm reverse flow to Germany

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

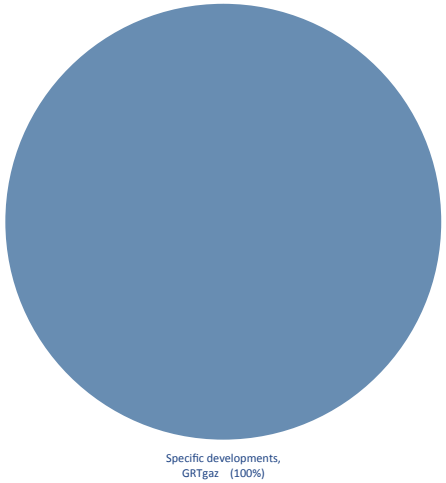
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-258	Developments for Montoir LNG terminal expansion at 16,5bcm - 2	Non-FID

Pipeline including CS

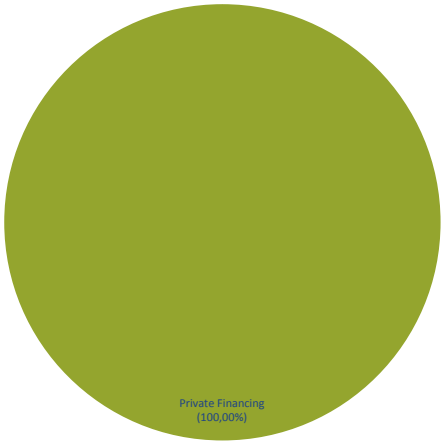
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2021
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+200,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Montoir de Bretagne	Yes	entry	125,00	LNG Terminals France (PEG North)	Hub France (PEG North)

DESCRIPTION OF THE PROJECT

This entry capacity increase at Montoir needs specific developments and core system developments (New line between Chemery and Dierrey).

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes,

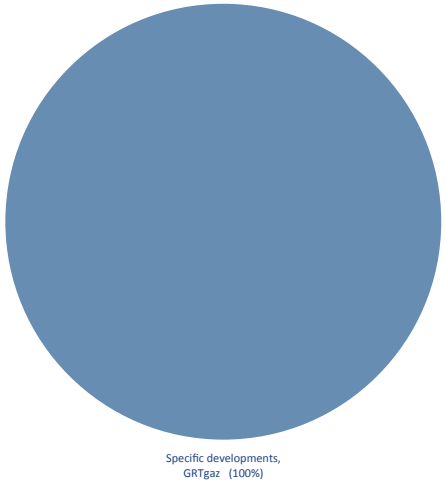
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-269	Fosmax (Cavaou) LNG expansion	Non-FID

Pipeline including CS

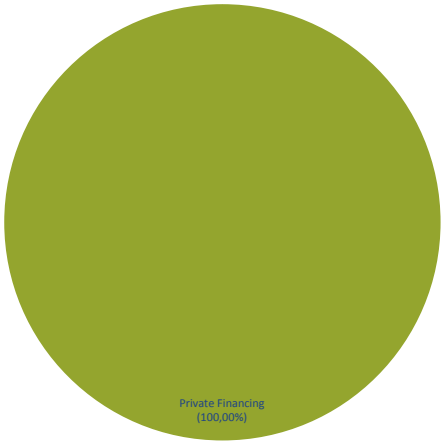
SPONSORS



GENERAL INFORMATION

Promoter	GRTgaz
Operator	GRTgaz
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	no
IGAs	None
Web Link	http://www.grtgaz.com/fileadmin/plaquettes/en/10years2013_2022_EN.pdf

FINANCING



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	
Construction	
Commissioning	2020
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Fos (Tonkin/Cavaou)	Yes	entry	327,00	LNG Terminals France (PEG South)	Hub France (PEG South)

DESCRIPTION OF THE PROJECT

Only core system developments are needed for this expansion : they will depend on the other entry capacity increases in the South zone.

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables,

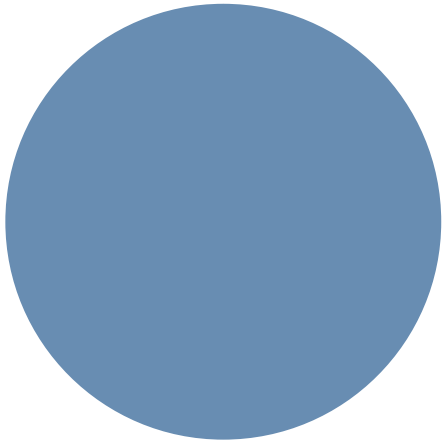
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-F-004	Hauterives Storage Project - Stage 1	FID

Storage Facility

SPONSORS

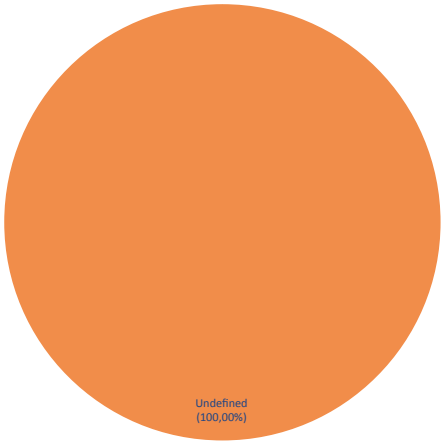


GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy
TEN-E Project ?	Priority Project
Interested by PCI ?	No
IGAs	None
Web Link	

TEN-E Requests	Date of Request	Year Funding Granted
		2002

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2014/1
Last completed Phase :	Construction

TECHNICAL INFORMATION

Storage facility	Hauterives
Working volume (mcm)	+60,00
Injectability (mcm/d)	+1,20
Deliverability (mcm/d)	+4,80

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Development of a new salt cavity storage.

EXPECTED BENEFITS

Security of Supply, Market integration,

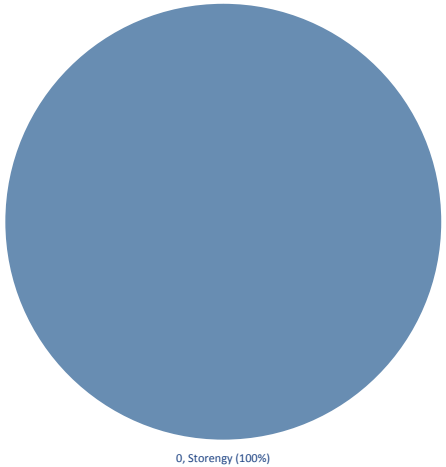
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-F-265	Hauterives - Stage 2	Non-FID

Storage Facility

SPONSORS

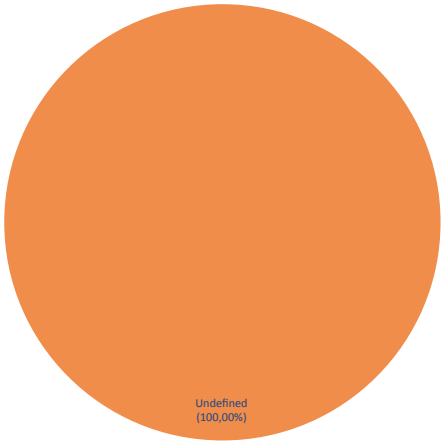


GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy
TEN-E Project ?	Priority Project
Interested by PCI ?	No
IGAs	None
Web Link	

TEN-E Requests	Date of Request	Year Funding Granted
		2002

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2015/1
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Hauterives
Working volume (mcm)	+40,00
Injectability (mcm/d)	+0,80
Deliverability (mcm/d)	+3,20

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

DESCRIPTION OF THE PROJECT
Development of a new salt cavity storage.

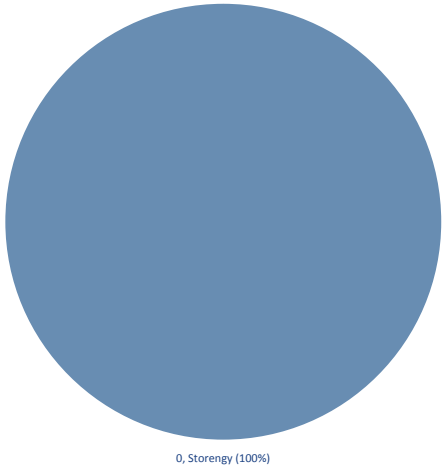
EXPECTED BENEFITS
Security of Supply, Market integration,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	**Private financing**	**Multilateral financing**

UGS-N-002	Alsace Sud	Non-FID

Storage Facility

SPONSORS

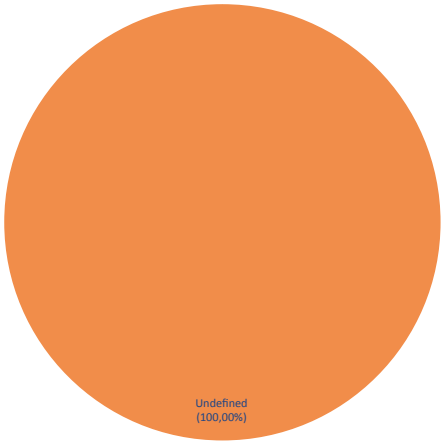


GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	No
IGAs	None
Web Link	

TEN-E Requests	Date of Request	Year Funding Granted
		2005

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2022/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Alsace Sud
Working volume (mcm)	+200,00
Injectability (mcm/d)	+3,00
Deliverability (mcm/d)	+9,60

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Creation of a new salt cavity storage site of up to 200 mcm of working gas volume

EXPECTED BENEFITS

Security of Supply, Market integration, o SoS
o Market Integration (Increase of competition)
The project will contribute to the increase of storage capacity in France, which will enhance security of supply and provide more flexibility to the market thus facilitating competition.
,

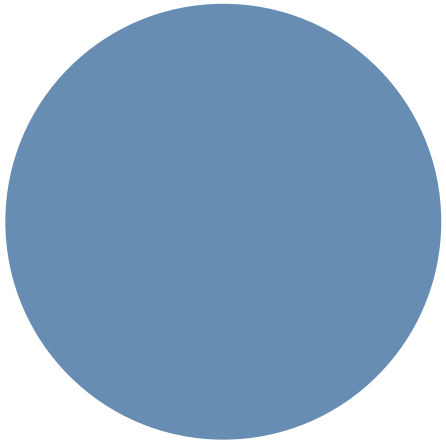
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-003	Etrez	FID

Storage Facility

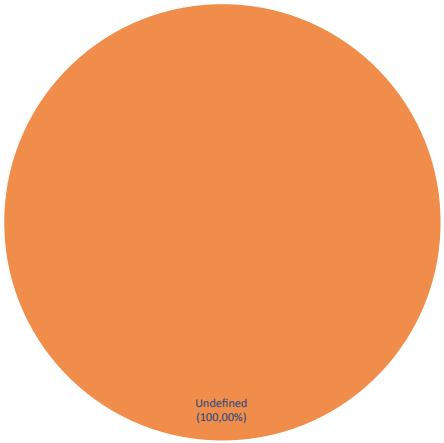
SPONSORS



GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2015/4
Last completed Phase :	Construction

TECHNICAL INFORMATION

Storage facility	Etrez Gas Storage
Working volume (mcm)	+60,00
Injectability (mcm/d)	
Deliverability (mcm/d)	+4,00

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Extension of the exisiting salt cavity storage facilities.

EXPECTED BENEFITS

Security of Supply, Market integration,
o Market Integration (Increase of competition)
The project will contribute to the increase of storage capacity in France, which will enhance security of supply and provide more flexibility to the market thus facilitating competition
,

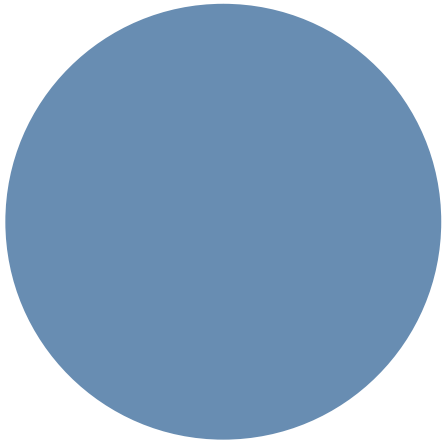
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-264	Etrez - Stage 2	Non-FID

Storage Facility

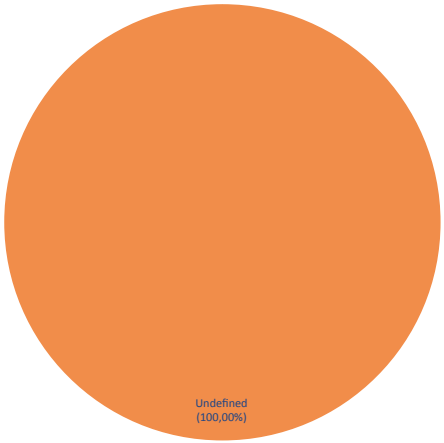
SPONSORS



GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2022/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Etrez /Manosque Gas Storage
Working volume (mcm)	+315,00
Injectability (mcm/d)	+7,00
Deliverability (mcm/d)	+24,00

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Extension of the exisiting salt cavity storage facilities.

EXPECTED BENEFITS

Security of Supply, Market integration,
o Market Integration (Increase of competition)
The project will contribute to the increase of storage capacity in France, which will enhance security of supply and provide more flexibility to the market thus facilitating competition
,

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

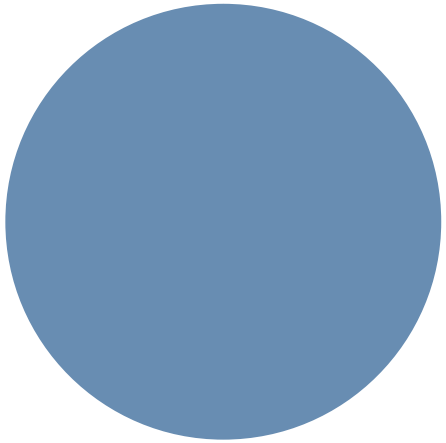
Germany


NOGAT
NORPIPE
EUROPIPE
EUROPIPE II
BALTIC PIPE
Dragør
Avedøre
Trelleborg
Ellund
Dornum
Emden
Nüttermoor
Krummhörn
Zuidwending I
Groningen
Grijpskerk
Oude Statenzijl
Etzel*
Kiel-Rönne
Quarnstedt
Hamburg
Greifswald
Kamminke
Möckow
Harsefeld
Kraak
Hamburg Reitbrook
Wardenburg
Oldenburg
Bunde
Norg
Alkmaar
Vlieghuis
Kalle
Nordlohne
Bremen-Lesum
Steinitz
VHP-GASPOOL-H
Amsterdam
TTF
Uelsen
Emsbüren
Rehden
Peckensen
Ahlten
Lehrte
Hannover
Drohne
Enschede
Epe*
Zevenaar
Münster
Empelde
Berlin
Mallnow
Buchholz
Rüdersdorf
Xanten
Dortmund
Essen
Stassfurt
Katharina
Guben
Gubin
Düsseldorf
Haanrade
Bocholtz
Broichweiden
Stolberg
Kassel
Allmenhausen
Kirchheiligen
Leipzig
Bad Lauchstädt
Behringen
Reckrod
GERMANY
Deutschneudorf
Brandov
Hora Svaté Kateřiny
Bras
LUX.
Petange
Remich
Stockstadt
Frankenthal
Hähnlein
Lampertheim
Sandhausen
VHP NCG-H
Eschenfelden
Waidhaus
Pfrimda
PRAGUE
Háje
Obergailbach
Medelsheim
Karlsruhe
Cerville
Stuttgart
Veselí nad Lužnicí
Oberkappel
Bierwang
Burghausen
Schönkirchen
Linz
München
Fronhofen-Trigonodus
Alsace Sud
Fallentor
Wallbach
Wolfersberg
Inzenham-West
Schmidthausen
Pfronten
Kiefersfelden
Breitbrunn
Thann
Puchkirchen
Algelsbrunn
Oltingue
Rodersdorf
Basel
Zürich
Thayngen
Lindau
Leibach
Haiming 2-7F
Haidach*

PRD-N-301	Project study on the integration of Power to Gas (PtG) facilities into the gas transmission system*	Non-FID

Production Facility

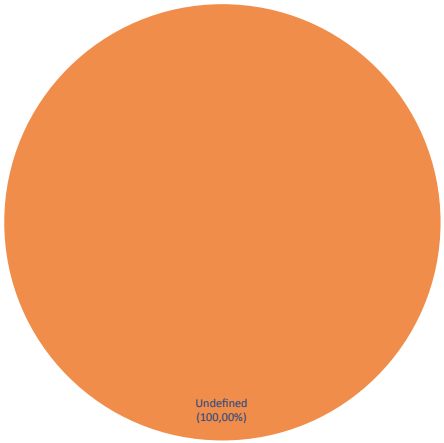
SPONSORS



GENERAL INFORMATION

Promoter	Open Grid Europe GmbH
Operator	Open Grid Europe GmbH
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2016/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

Production facility	
Expected volume (bcm/y)	
Technical Capacity (bcm/y)	

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

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

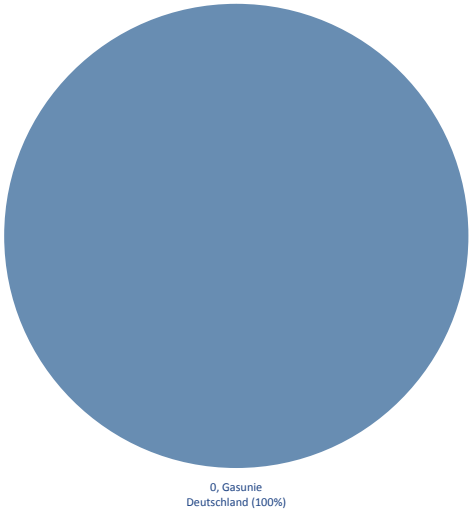
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-F-231	Extension of existing gas transmission capacity in the direction to Denmark - 1. Step	FID

Pipeline including CS

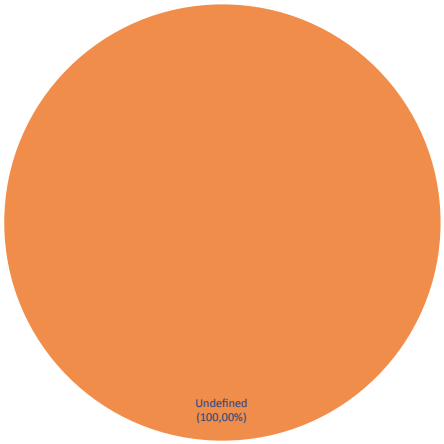
SPONSORS



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

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2014/4
Last completed Phase :	Construction

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total Compressor Power (MW)	+15,00
Expected Load Factor	

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 gas hubs (TTF in the Netherlands and market area 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.,

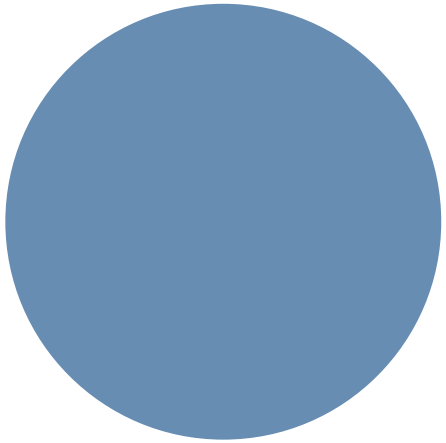
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-289	Installation of Nord Stream onshore project*	FID

Pipeline including CS

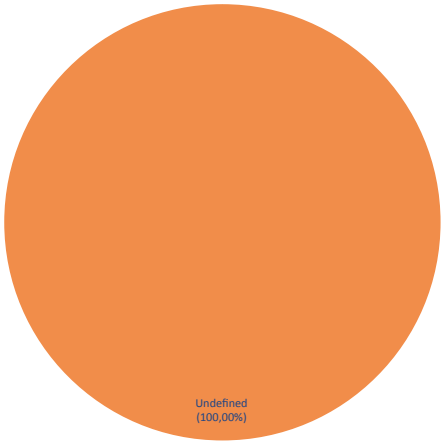
SPONSORS



GENERAL INFORMATION

Promoter	GASCADE Gastransport GmbH
Operator	GASCADE Gastransport GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	2013
FID	2012
Construction	2013 Q1
Commissioning	2014/1
Last completed Phase :	Permitting

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+90,00
Total Compressor Power (MW)	+27,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

None

EXPECTED BENEFITS

Market integration (GASPOOL / NCG (Gernsheim)), Diversification of sources,

COMMENTS ABOUT THE PROJECT FINANCING

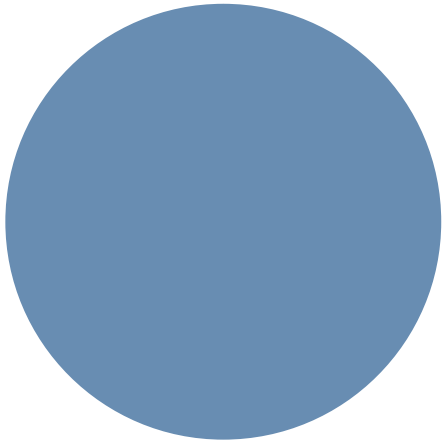
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-F-292	Installing a reverse flow in Mallnow*	FID

Pipeline including CS

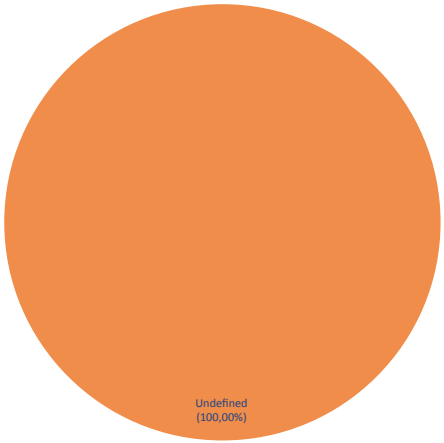
SPONSORS



GENERAL INFORMATION

Promoter	GASCADE Gastransport GmbH
Operator	GASCADE Gastransport GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	2013
FID	2013
Construction	2013
Commissioning	2014
Last completed Phase :	Permitting

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

new metering station

EXPECTED BENEFITS

Reverse Flows, Diversification of sources,

COMMENTS ABOUT THE PROJECT FINANCING

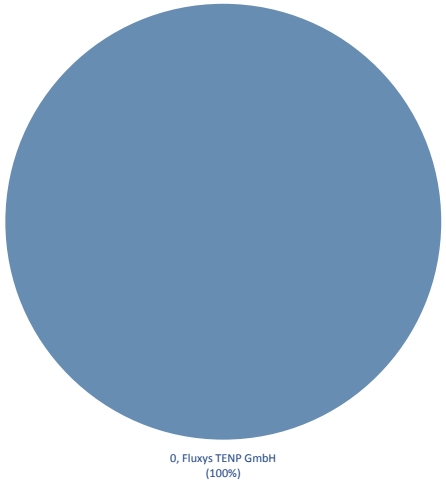
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-N-207	Bretella	Non-FID

Pipeline including CS

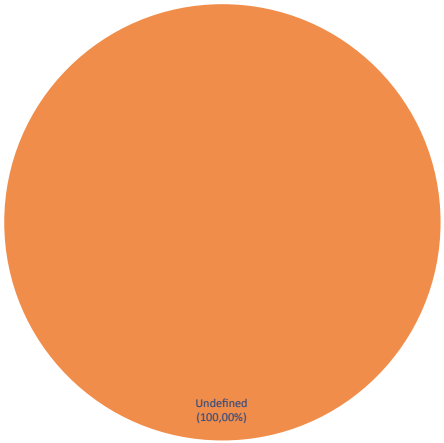
SPONSORS



GENERAL INFORMATION

Promoter	Fluxys
Operator	Fluxys TENP GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	
FID	2014 Q1
Construction	
Commissioning	2017/4
Last completed Phase :	Market test

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+11,00
Total Compressor Power (MW)	7 to 11
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Eynatten (BE) // Lichtenbusch / Raeren (DE) (Fluxys TENP)	Yes	exit		Hub Germany (NCG)	Hub Belgium (Eynatten)
	Yes	entry		Hub Belgium (Eynatten)	Hub Germany (NCG)

DESCRIPTION OF THE PROJECT

Building an additional pipeline between Stolberg and Eynatten to allow a bi-directional flow from Stolberg (i.e. NCG and Gaspool) to Fluxys Belgium. This is part of the mid case and high case scenarios of the reverse flow project.

EXPECTED BENEFITS

Security of Supply, Market integration (NCG and HUB Belgium), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (BE, DE), Back-up for renewables,

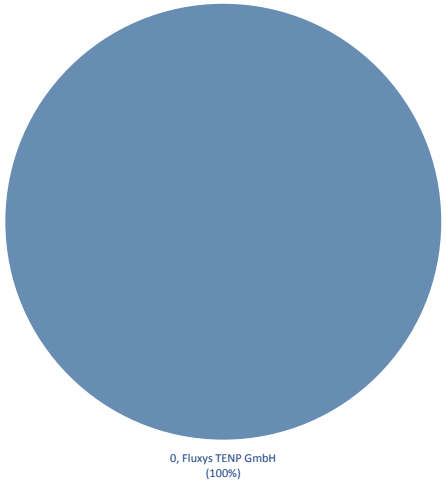
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-208	Reverse Flow TENP Germany	Non-FID

Pipeline including CS

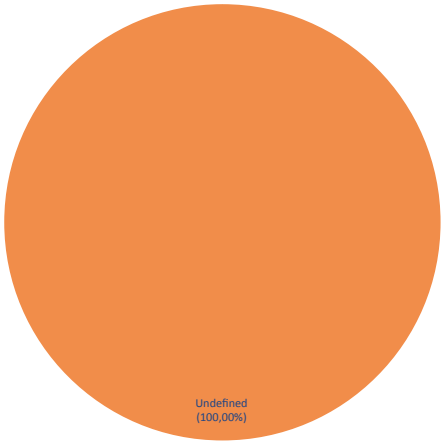
SPONSORS



GENERAL INFORMATION

Promoter	Fluxys
Operator	Fluxys TENP GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	
FID	2014 Q1
Construction	
Commissioning	2017/4
Last completed Phase :	Market test

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Wallbach (Fluxys TENP/FluxSwiss)	Yes	entry		Hub Switzerland	Hub Germany (NCG)
Stolberg	Yes	exit		Hub Germany (NCG)	Hub Germany (GASPOOL)

DESCRIPTION OF THE PROJECT

Reversing the TENP compressor stations to be able to source gas from the south (Italy) into Germany. This project will reverse two compression stations and will add compression capacity in Stolberg to transfer gas from NCG to Gaspool.

EXPECTED BENEFITS

Security of Supply, Market integration (NCG, Gaspool, PSV, PEGNord), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (DE), Back-up for renewables,

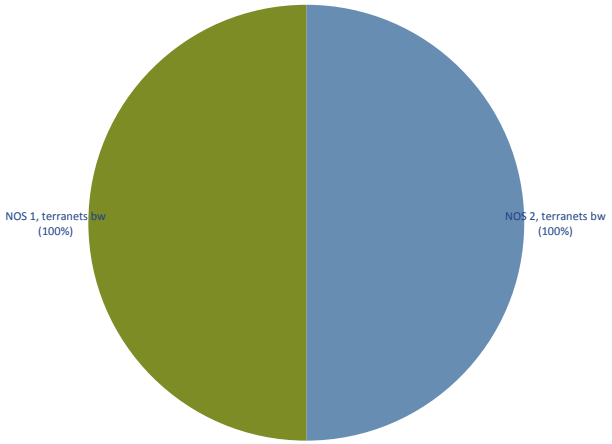
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-228	Nordschwarzwaldleitung	Non-FID

Pipeline including CS

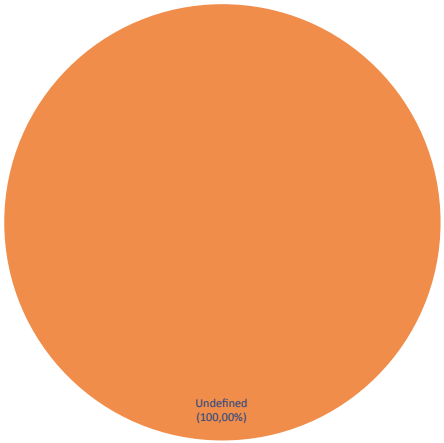
SPONSORS



GENERAL INFORMATION

Promoter	terranets bw GmbH
Operator	terranets bw GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.terranets-bw.de

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	2014 Q1
FID	2013 Q4
Construction	2015 Q1
Commissioning	2015/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

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 (GASPOOL)

DESCRIPTION OF THE PROJECT

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.,

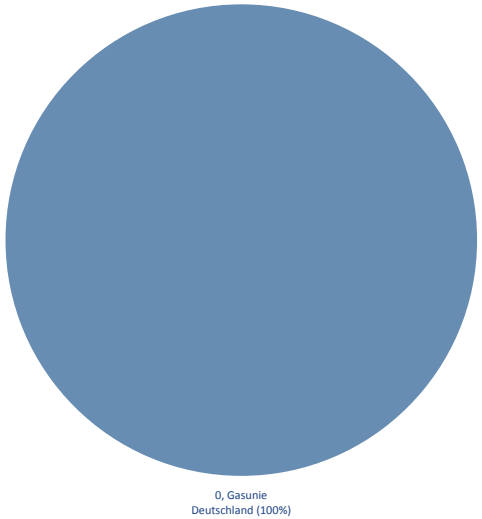
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-232	Extension of existing gas transmission capacity in the direction to Denmark - 2. Step	FID

Pipeline including CS

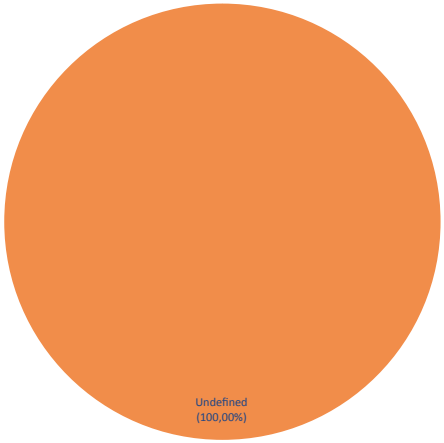
SPONSORS



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

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2015/4
Last completed Phase :	Construction

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+63,50
Total Compressor Power (MW)	+16,00
Expected Load Factor	

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.,

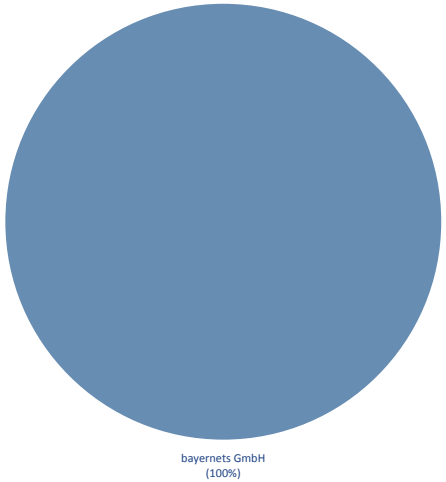
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-240	MONACO section phase II (Finsing-Amerdingen)	Non-FID

Pipeline including CS

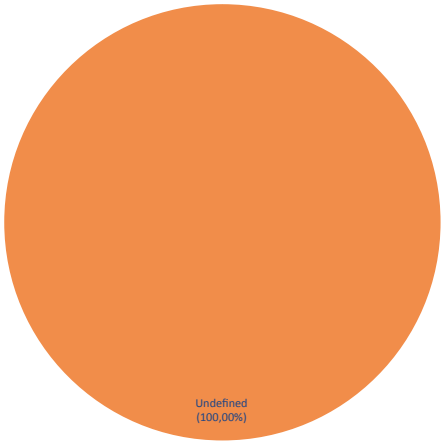
SPONSORS



GENERAL INFORMATION

Promoter	bayernets GmbH
Operator	bayernets GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	1
Web Link	www.bayernets.de/start_netzinformation_en.aspx?int_name=_73792

FINANCING



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	2016 Q4
FID	
Construction	
Commissioning	2018/4
Last completed Phase :	Market test

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+130,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Pipeline project

EXPECTED BENEFITS

Security of Supply, Market integration, The MONACO project is divided in two phases: 1. Burghausen-Finsing and 2. Finsing-Amerdingen. The new pipeline is targeted to link areas of high demand in Germany and further westwards with liquid gas sources in and through Austria (Überackern/Burghausen at the Austrian border, Penta-West, WAG, MEGAL, Hub CEGH Baumgarten) and of Italy (via TGL pipeline, planned to deliver mainly LNG gas northwards). The project increases physical flow capacity between these market areas and therefore contributes to market integration, as well as accelerating competition through the increased diversification of sources and diversification of routes.

The project will also provide better access of large Austrian gas reservoirs Haidach and 7 UGS to Germany and further westwards. It thus enhances the resilience of the gas network, shows positive impact on the remaining flexibility of the system and therefore contributes to Security of Supply in Europe.,

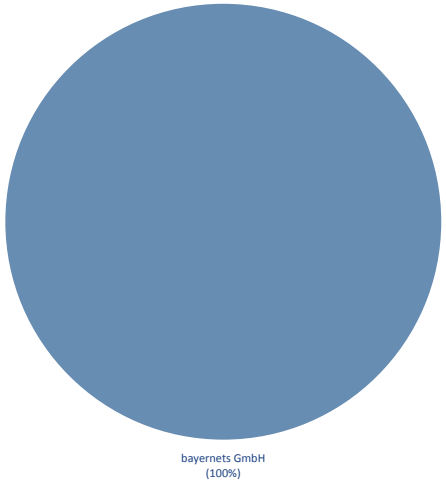
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-241	MONACO section phase I (Burghausen-Finsing)	Non-FID

Pipeline including CS

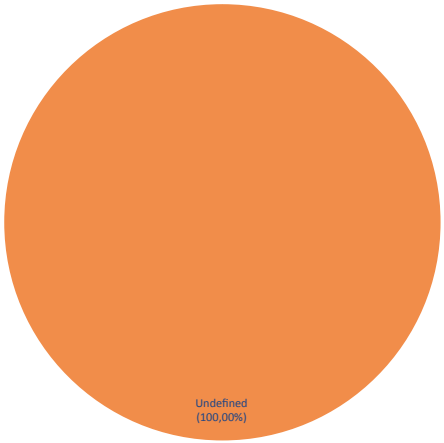
SPONSORS



GENERAL INFORMATION

Promoter	bayernets GmbH
Operator	bayernets GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	1
Web Link	www.bayernets.de/start_netzinformation_en.aspx?int_name=_73792

FINANCING



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	
Construction	
Commissioning	2017/4
Last completed Phase :	FEED

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Pipeline project

EXPECTED BENEFITS

Security of Supply, Market integration, The MONACO project is divided in two phases: 1. Burghausen-Finsing and 2. Finsing-Amerdingen. The new pipeline is targeted to link areas of high demand in Germany and further westwards with liquid gas sources in and through Austria (Überackern/Burghausen at the Austrian border, Penta-West, WAG, MEGAL, Hub CEGH Baumgarten) and of Italy (via TGL pipeline, planned to deliver mainly LNG gas northwards). The project increases physical flow capacity between these market areas and therefore contributes to market integration, as well as accelerating competition through the increased diversification of sources and diversification of routes.

The project will also provide better access of large Austrian gas reservoirs Haidach and 7 UGS to Germany and further westwards. It thus enhances the resilience of the gas network, shows positive impact on the remaining flexibility of the system and therefore contributes to Security of Supply in Europe.,

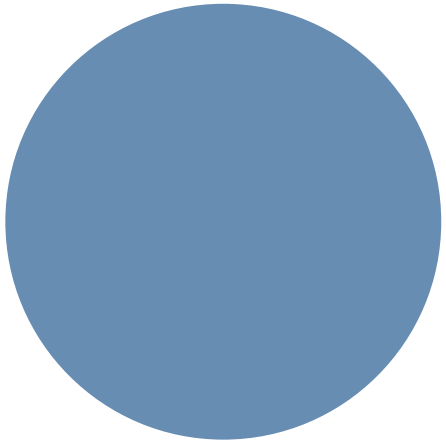
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-243	System enhancements, including the connection of gas-fired power plants, storages and the integration of power to gas facilities	Non-FID

Pipeline including CS

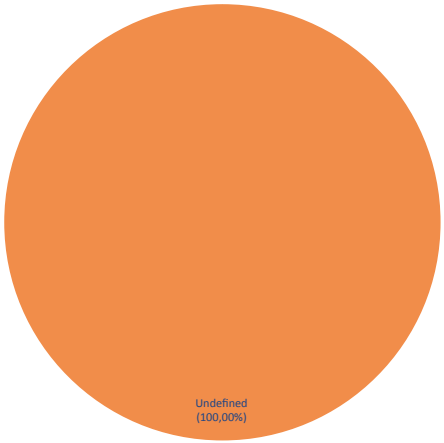
SPONSORS



GENERAL INFORMATION

Promoter	Open Grid Europe GmbH
Operator	Open Grid Europe GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.open-grid–europe.com

FINANCING



THIRD-PARTY ACCESS REGIME

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

SCHEDULE

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

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

<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,

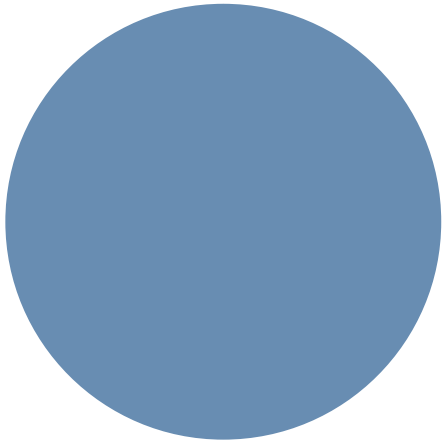
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-244	Stepwise change-over to physical H-gas operation of L-gas networks	Non-FID

Pipeline including CS

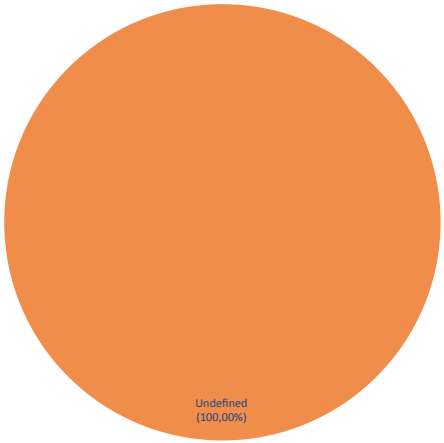
SPONSORS



GENERAL INFORMATION

Promoter	Open Grid Europe GmbH
Operator	Open Grid Europe GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.open-grid–europe.com

FINANCING



THIRD-PARTY ACCESS REGIME

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

SCHEDULE

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

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

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.
,

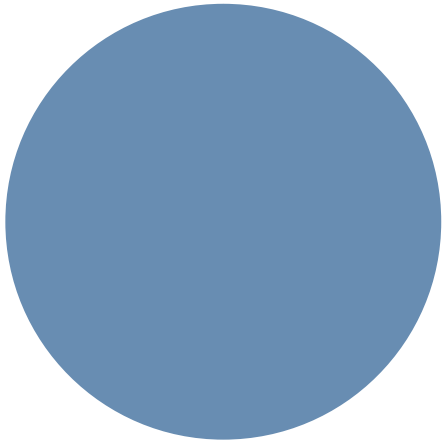
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-291	new net connection from Rehden to Drohne (new covenant from NEP2012)*	Non-FID

Pipeline including CS

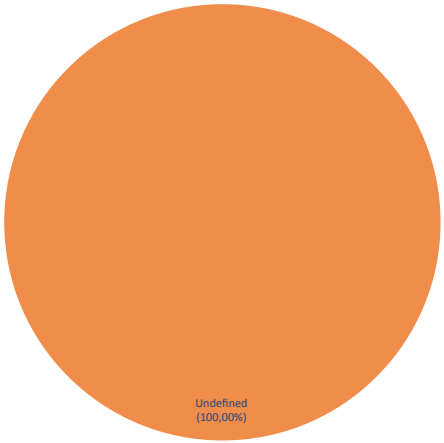
SPONSORS



GENERAL INFORMATION

Promoter	GASCADE Gastransport GmbH
Operator	GASCADE Gastransport GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	2016 Q4
FID	
Construction	2017
Commissioning	2018/1
Last completed Phase :	

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+26,00
Total Compressor Power (MW)	
Expected Load Factor	

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)

DESCRIPTION OF THE PROJECT

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

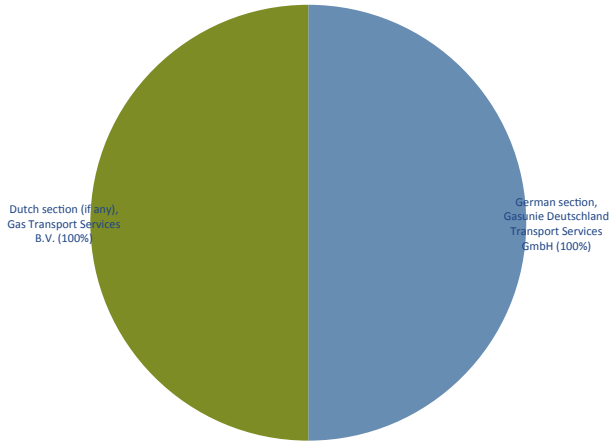
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-N-316	Expansion of Nord Stream connection to markets in western Europe - Exit Bunde-Oude*	Non-FID

Pipeline including CS

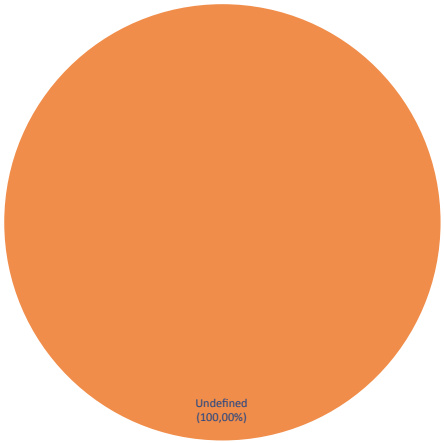
SPONSORS



GENERAL INFORMATION

Promoter	Gasunie Deutschland Transport Services GmbH
Operator	Gasunie Deutschland Transport Services GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	No website available

FINANCING



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	
Construction	
Commissioning	2020/3
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+25,00
Total Compressor Power (MW)	+30,00
Expected Load Factor	+0,90

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

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

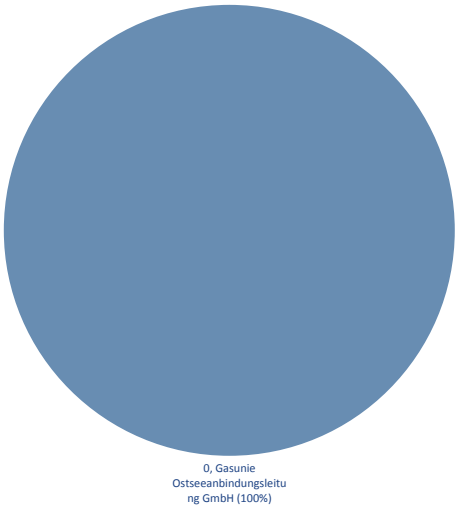
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-N-321	Expansion of Nord Stream connection to markets in western Europe - Entry Greifswald*	Non-FID

Pipeline including CS

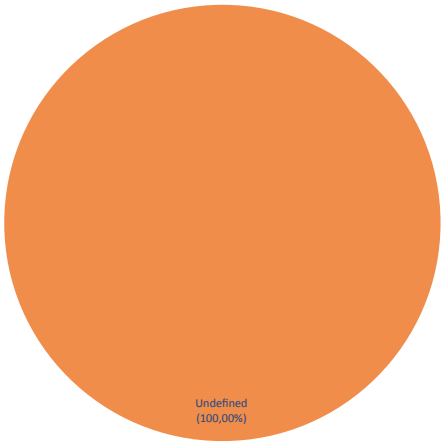
SPONSORS



GENERAL INFORMATION

Promoter	Gasunie Deutschland Transport Services GmbH
Operator	Gasunie Ostseeanbindungsleitung GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	No website available

FINANCING



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	
Construction	
Commissioning	2020/3
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+100,00
Total Compressor Power (MW)	+60,00
Expected Load Factor	+0,90

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

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

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-N-323	Expansion of Nord Stream connection to markets in western Europe - Entry Greifswalder Bodden area*	Non-FID

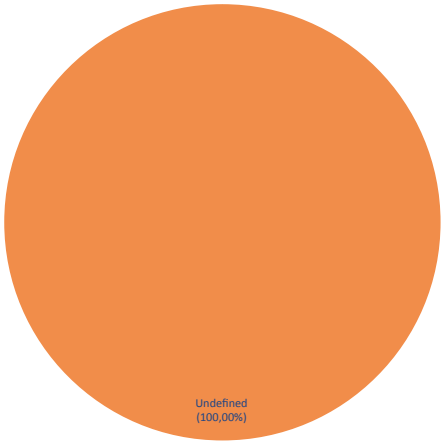
Pipeline including CS

SPONSORS

GENERAL INFORMATION

Promoter	GASCADE Gastransport GmbH
Operator	NEL Gastransport GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2022
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total Compressor Power (MW)	+171,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

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

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-N-324	Expansion of Nord Stream connection to markets in western Europe - Exit Eynatten*	Non-FID

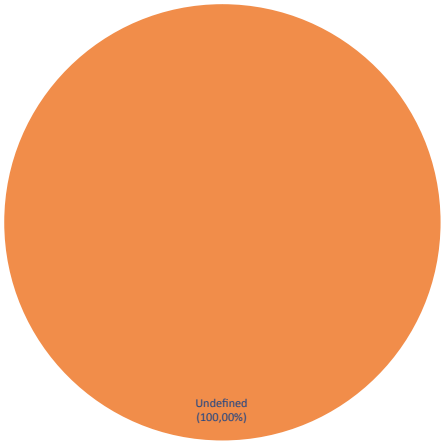
Pipeline including CS

SPONSORS

GENERAL INFORMATION

Promoter	GASCADE Gastransport GmbH
Operator	GASCADE Gastransport GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2022
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	3
Total Pipeline Length (km)	+440,00
Total Compressor Power (MW)	+203,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Eynatten (BE) // Lichtenbusch / Raeren (DE) (GASCADE)	Yes	exit	374,00	Hub Germany (GASPOOL)	Hub Belgium
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

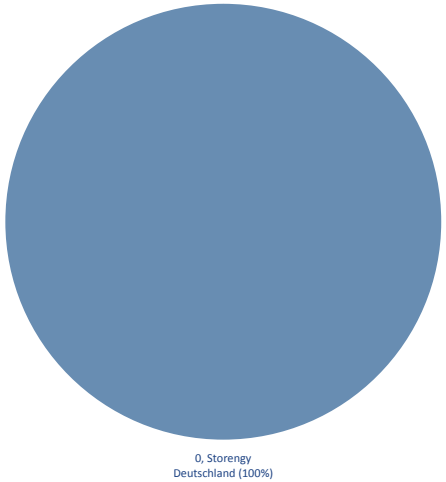
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

UGS-F-317	Peckensen Gas Storage FID*	FID

Storage Facility

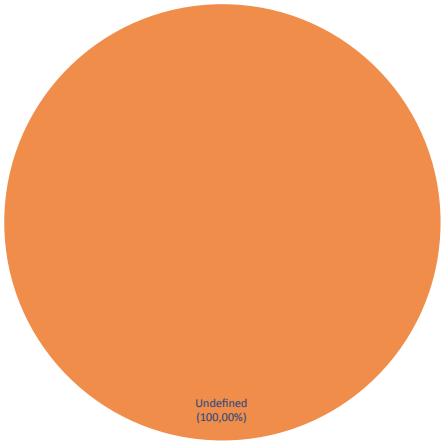
SPONSORS



GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy Deutschland GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2014/4
Last completed Phase :	Construction

TECHNICAL INFORMATION

Storage facility	Peckensen Storage
Working volume (mcm)	+180,00
Injectability (mcm/d)	+3,00
Deliverability (mcm/d)	+7,00

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

DESCRIPTION OF THE PROJECT

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

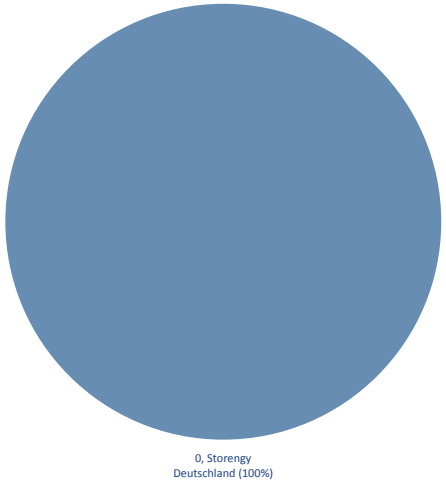
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

UGS-N-001	Harsefeld	Non-FID

Storage Facility

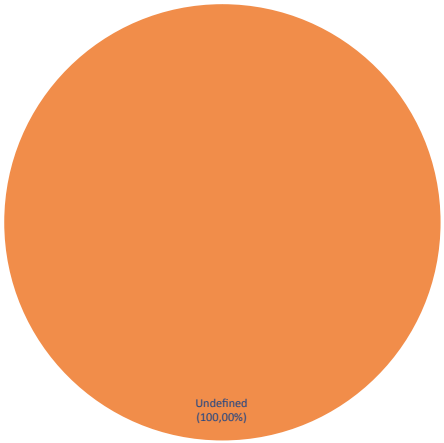
SPONSORS



GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy Deutschland GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2020/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Harsefled Gas Storage
Working volume (mcm)	+120,00
Injectability (mcm/d)	+3,60
Deliverability (mcm/d)	+3,60

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Extension of the existing salt cavity storage facility in Germany

EXPECTED BENEFITS

Security of Supply, Market integration, o SoS
o Market Integration (Increase of competition)
The project will contribute to the increase of storage capacity in France, which will enhance security of supply and provide more flexibility to the market thus facilitating competition.
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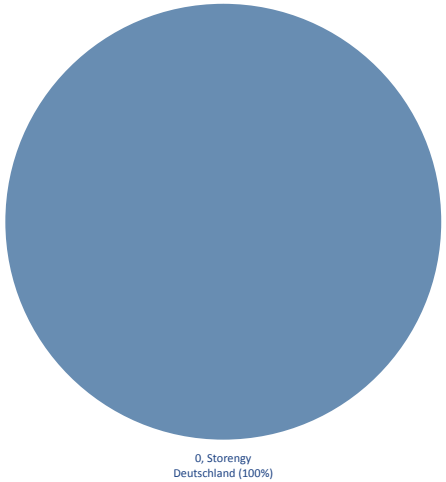
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-005	Peckensen Gas Storage	Non-FID

Storage Facility

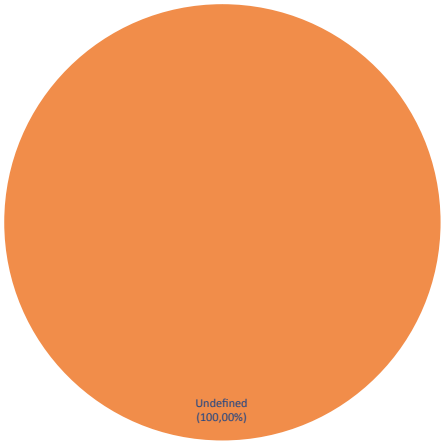
SPONSORS



GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy Deutschland GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2017/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Peckensen Storage
Working volume (mcm)	+100,00
Injectability (mcm/d)	+1,00
Deliverability (mcm/d)	+3,00

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

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.,

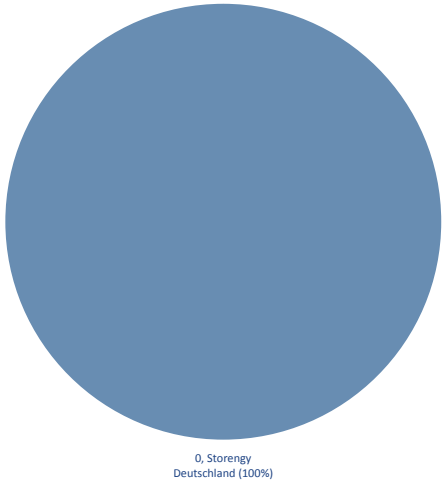
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-049	Behringen Gas Storage	Non-FID

Storage Facility

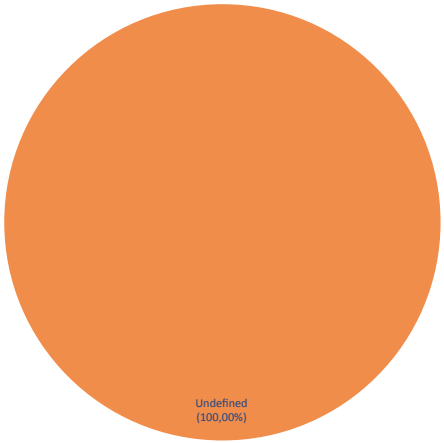
SPONSORS



GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy Deutschland GmbH
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2022/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Behringen Gas Storage
Working volume (mcm)	+1.000,00
Injectability (mcm/d)	+7,00
Deliverability (mcm/d)	+14,00

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

DESCRIPTION OF THE PROJECT

Development of a new storage facility in a depleted gas field.

EXPECTED BENEFITS

Security of Supply, Market integration,

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

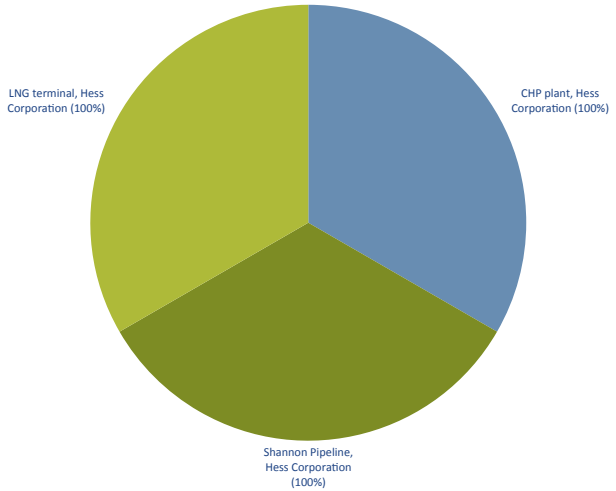
Ireland


North Channel
Islandmagee
Londonderry / Derry
SNIP
Ballylumford
BELFAST
CORRIB
Ballinaboy
IRELAND
INTERCONNECTOR 2
Gormanston
Loughshinny
DUBLIN
Galway
IBP
Limerick
Shannon LNG
Waterford
Cork
Inch
South Hook LNG
Dragon LNG
Milford Haven
KINSALE HEAD
SEVEN HEADS
Kinsale Southwest

LNG-N-030	Shannon LNG Terminal	Non-FID

LNG Terminal

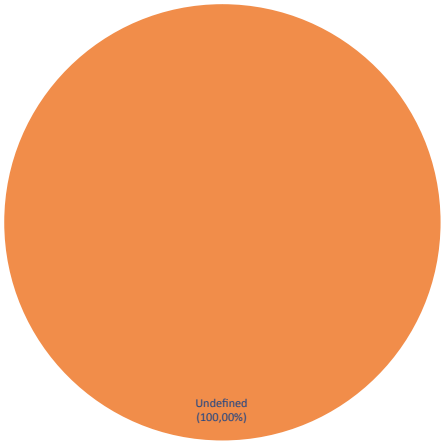
SPONSORS



GENERAL INFORMATION

Promoter	Shannon LNG
Operator	Shannon LNG
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Yes
IGAs	None
Web Link	www.shannonlngplanning.ie

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Yes
Exemption granted ?	Yes
% Exemption in entry direction	100%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	2014
FID	2014
Construction	2015
Commissioning	2018
Last completed Phase :	Market test

TECHNICAL INFORMATION

Regasification facility	Shannon LNG Limited
Expected volume (bcm/y)	+2,70
Storage capacity (m3)	+200.000,00
Send-out (mcm/d)	+16,20
Ship size (m3)	265.000,00
Reloading ability ?	No

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Shannon LNG	Yes	exit	191,10	LNG Terminals Ireland	Hub Ireland

DESCRIPTION OF THE PROJECT

Shannon LNG proposes to construct a liquefied natural gas (LNG) terminal on the southern shore of the Shannon Estuary in County Kerry, Ireland. The ultimate parent company of Shannon LNG is the US based Hess Corporation.

Shannon LNG has obtained all of the major permits and consents for the LNG project including planning permission for the terminal and 26 KM export pipeline, pipeline rights of way and foreshore leases and licenses.

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, N-1 National (Ireland), Back-up for renewables, The Shannon LNG project will increase Irelands security of gas supply. Ireland imports over 90% of its gas via two pipelines from Scotland. Ireland is unable to meet its N-1 Infrastruture requirements under Regulation (EU) No 994/2010 demonstrated in the Commission for Energy Regulations Consultation Paper “Draft National Preventive Action Plan – Gas 2012-2014 Ireland” (CER/12/088)). If the permitted ultimate capacity from the Shannon LNG terminal is added to the CER's calculation, the result demonstrates that the Shannon LNG terminal has the potential to satisfy the N-1 infrastructure requirement. The initial phase of the Shannon LNG project (16.2 mcm/d) will be capable of supplying approximatly 60% of forecast Irish peak demand (26.6 mcm/d) for 2020/2021 (Calculated using 1 in 50 Winter Peak Day Demand Scenario forecast, CER 2012 Joint Gas Capacity Statement). The proposed LNG terminal will increase market integration and system flexibility by providing a new gas supply route to Ireland. The project supports emmission reductions and will enhance Irelands long-term security of supply resiliance by providing an entirely new supply source for Ireland with LNG imported from geographies that may include Africa, Middle East, North America, Russia etc
,

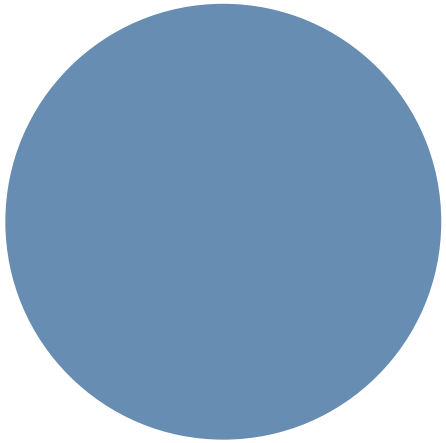
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-059	Physical Reverse Flow at Moffat Interconnection Point	Non-FID

Pipeline including CS

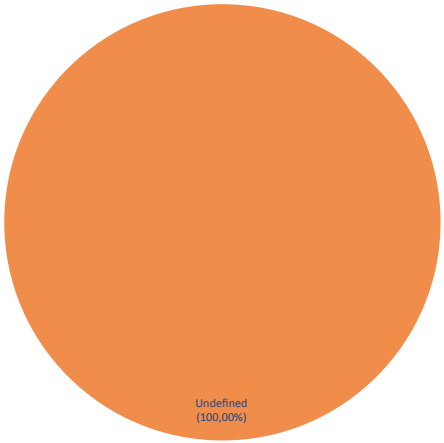
SPONSORS



GENERAL INFORMATION

Promoter	Gaslink
Operator	Gaslink
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

FINANCING



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	
Construction	
Commissioning	2017
Last completed Phase :	Market test

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+37,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Moffat	Yes	exit	38,50		

DESCRIPTION OF THE PROJECT

The interconnection point at Moffat is currently uni-directional with gas flow from UK to Ireland. This project would be to make the Moffat interconnection point bi-directional.

EXPECTED BENEFITS

Security of Supply, Market integration (Ireland & UK; Ireland & Northern ireland), Reverse Flows, Diversification of sources, Diversification of routes, Back-up for renewables, Biogas, 1.New sources of gas supplies will potentially be available in Ireland and Northern Ireland from 2017 onwards and there may be an over supply for exportation to the UK. In order to enable the physical exportation of gas, physical reverse flow is required at Moffat. 2. Increased participation by Irish shippers in the UK market facilitates closer linkage to the European market. 3. Contributes to the viability of LNG and storage projects.,

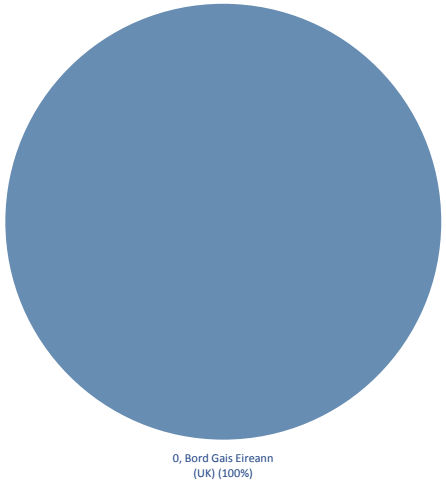
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-060	Twinning of South West Scotland Onshore System	Non-FID

Pipeline including CS

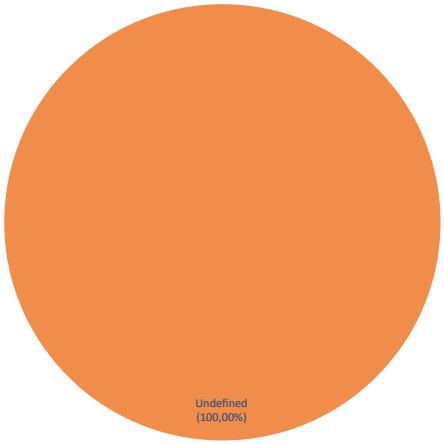
SPONSORS



GENERAL INFORMATION

Promoter	Gaslink
Operator	Gaslink
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Not defined yet
IGAs	2
Web Link	

FINANCING



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	
Construction	2016 Q1
Commissioning	2016/4
Last completed Phase :	Market test

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+50,00
Total Compressor Power (MW)	
Expected Load Factor	+0,86

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Twinning a 50km section of pipeline between Cluden and Brighouse Bay in South West Scotland.

EXPECTED BENEFITS

Security of Supply, Market integration (Increases interoperability between Ireland & UK; Ireland & Northern Ireland; UK & Isle of Man), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Ireland), N-1 Regional (Ireland, Northern Ireland & UK), Biogas, 1.Reinforcing the 50km single section of the SWSOS transmission system guarantees the supply capacity and the security to meet Ireland's future demand requirements in the short, medium and long term.2 Ireland is on the Western peripheral of Europe and is quite isolated from mainland Europe. Ireland would greatly benefit from any infrastructure that would further connect Ireland to the gas system in the UK. It would also remove a capacity 'bottleneck' on the Interconnection System; this will increase the Technical Capacity of Moffat Entry Point and subsequently increase the available firm capacity that can be offered by the transporter to the Shippers.,

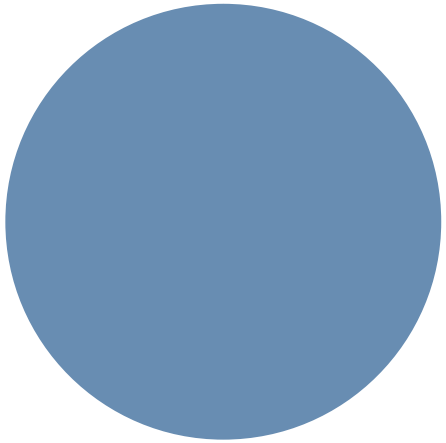
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-071	Physical Reverse Flow on South North Pipeline	Non-FID

Pipeline including CS

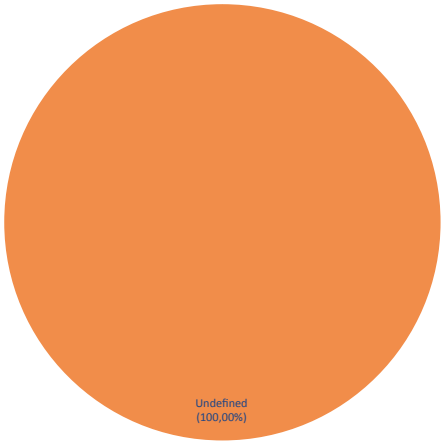
SPONSORS



GENERAL INFORMATION

Promoter	Gaslink
Operator	Gaslink
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



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	
Construction	
Commissioning	2017
Last completed Phase :	Market test

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Gormanston (South-North Interconnection Point)	Yes	entry	27,60	Hub United Kingdom	Hub Ireland

DESCRIPTION OF THE PROJECT

Currently gas flow between Ireland & Northern Ireland via the South North Pipeline is uni-directional (at the Gormanston Interconnection Point)

EXPECTED BENEFITS

Security of Supply, Market integration (Northern Ireland), Reverse Flows, Diversification of routes, Back-up for renewables, Biogas, 1.Physical reverse flow between Ireland and Northern Ireland is beneficial to the development of an integrated market on the island of ireland, having significant importance in the development and operation of a single gas market between both jurisdictions. 2 It would widen the market that is available to Northern Ireland gas market participants.3 Contributes to the viability of LNG and storage projects.,

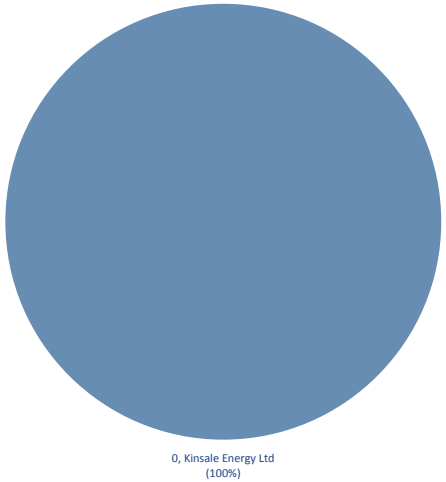
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-197	Southwest Kinsale Storage Expansion Project	Non-FID

Storage Facility

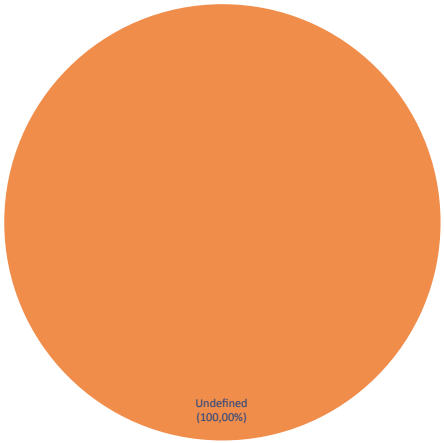
SPONSORS



GENERAL INFORMATION

Promoter	Kinsale Energy Ltd
Operator	Kinsale Energy Ltd
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.kinsale-energy.ie

FINANCING



THIRD-PARTY ACCESS REGIME

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	85%
% Exemption in exit direction	100%

SCHEDULE

End of permitting phase	2014 Q4
FID	2013 Q4
Construction	2015 Q2
Commissioning	2015/3
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Southwest Kinsale Gas Storage Expansion
Working volume (mcm)	+174,00
Injectability (mcm/d)	+2,80
Deliverability (mcm/d)	+3,70

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Kinsale Southwest	Yes	entry	30,80	Hub Ireland	Storage Ireland
	Yes	exit	40,70	Storage Ireland	Hub Ireland

DESCRIPTION OF THE PROJECT

The project involves the expansion of the existing Southwest Kinsale storage facility from 226mcm to 400mcm through the drilling of a new well (s) and process equipment modifications to provide additional injection / withdrawal capacity

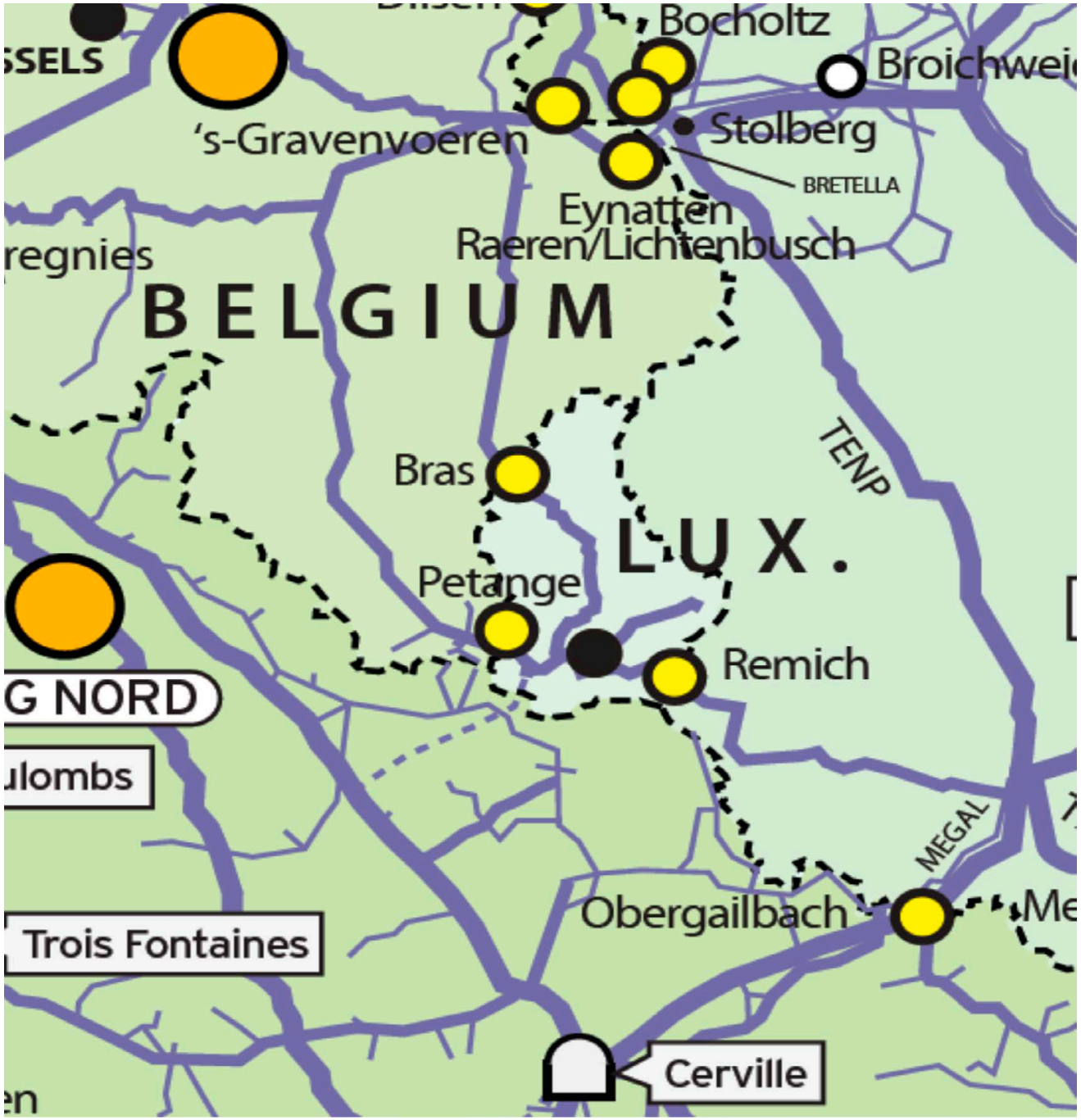
EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, N-1 National (Ireland), Back-up for renewables,

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

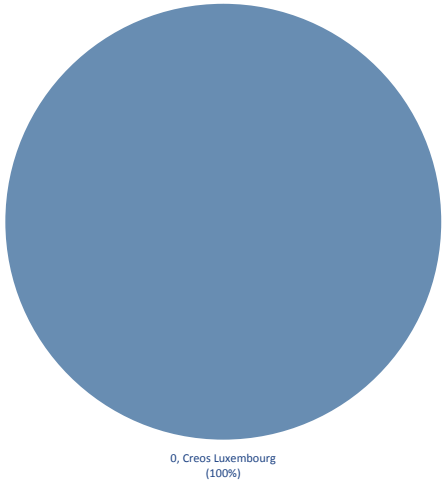
Luxembourg


Bocholtz
Broichweie
's-Gravenvoeren
Stolberg
BRETELLA
Eynatten
Raeren/Lichtenbusch
BELGIUM
Bras
TENP
LUX.
Petange
Remich
G NORD
ulombs
MEGAL
Obergailbach
Trois Fontaines
Cerville

TRA-N-013	OS GRTgaz/Creos	Non-FID

Pipeline including CS

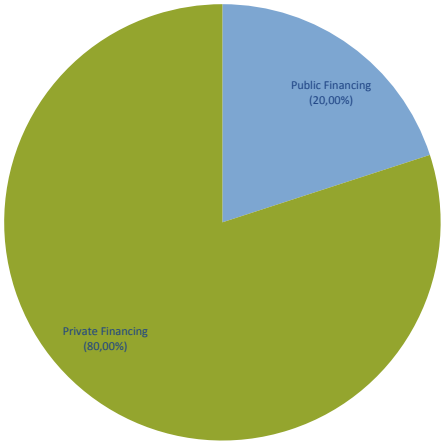
SPONSORS



GENERAL INFORMATION

Promoter	Creos Luxembourg S.A.
Operator	Creos Luxembourg S.A.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

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	2014 Q2
FID	2013 Q3
Construction	2014 Q2
Commissioning	2017/3
Last completed Phase :	Construction

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+2,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
New IP France/Luxemburg	Yes	entry	40,00	Hub France (PEG North)	Hub Luxemburg

DESCRIPTION OF THE PROJECT

add entry capacity from France to Lux

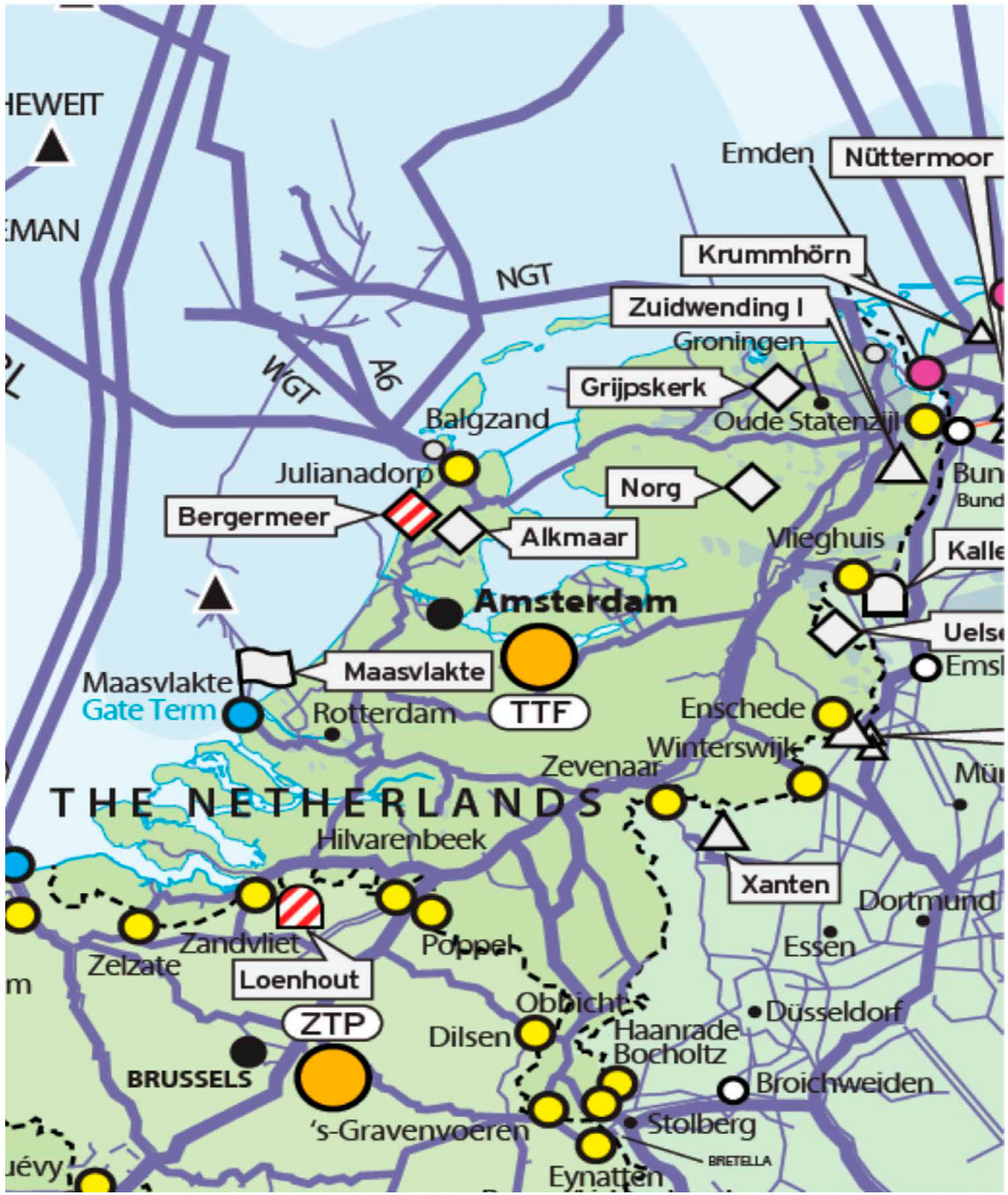
EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, N-1 National, N-1 Regional, o Security of Supply
o Extension of transport capacity of Russian gas to the West
o Integration of Nord Stream off- and on-Shore in the European gas infrastructure
,

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

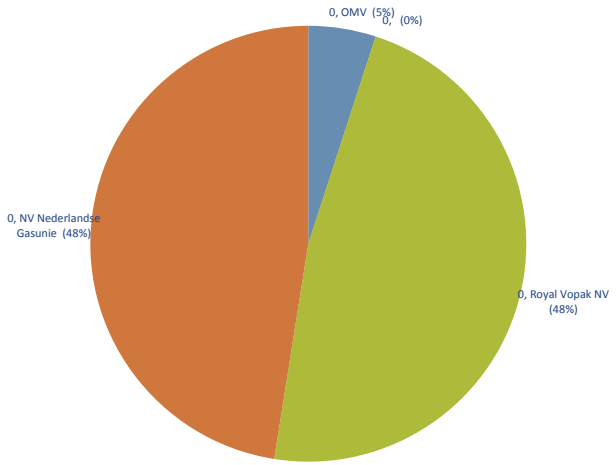
The Netherlands



LNG-N-050	Gate terminal phase 3	Non-FID

LNG Terminal

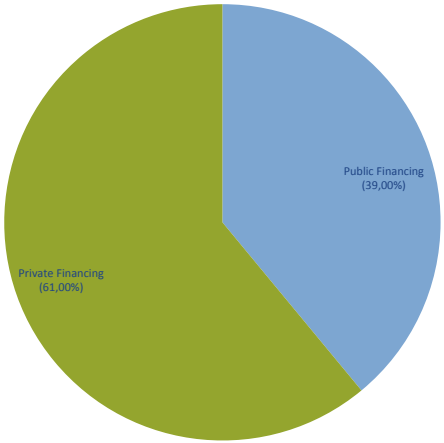
SPONSORS



GENERAL INFORMATION

Promoter	Gate Terminal B.V.
Operator	Gate Terminal B.V.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.gateterminal.com

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Yes
Exemption granted ?	Yes
% Exemption in entry direction	0%
% Exemption in exit direction	100%

SCHEDULE

End of permitting phase	2007 Q4
FID	2015 Q3
Construction	2015 Q3
Commissioning	2018/3
Last completed Phase :	Permitting

TECHNICAL INFORMATION

Regasification facility	Gate terminal Rotterdam
Expected volume (bcm/y)	+4,00
Storage capacity (m3)	+180.000,00
Send-out (mcm/d)	+11,00
Ship size (m3)	266.000,00
Reloading ability ?	No

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Gate Terminal (I)	Yes	exit	121,00	LNG Terminals Netherlands	Hub Netherlands

DESCRIPTION OF THE PROJECT

Increase the capacity by 4 BCM p.a. from the current 12 BCM p.a. to 16 BCM p.a.

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, Back-up for renewables, o SoS
o Market Integration (Increase of competition)
Gate terminal obtained an exempted ex Art 22 Gas Directive 2003/55/EC. In order to obtain an exemption it needed to be demonstrated that Gate terminal enhanced both security of supply and the competition on the gas market.
,

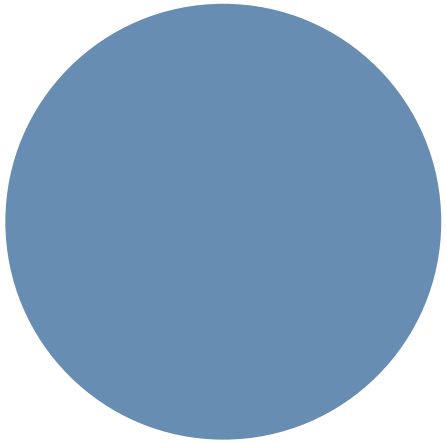
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing
Unknown	Unknown	

TRA-F-268	System Enhancements FID update - Gas Transport Services	FID

Pipeline including CS

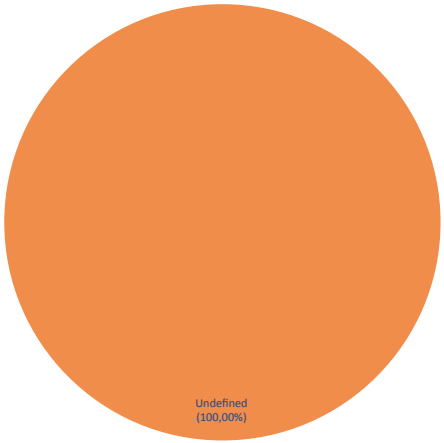
SPONSORS



GENERAL INFORMATION

Promoter	Gasunie Transport Services B.V.
Operator	Gasunie Transport Services B.V.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.integratedopenseason.com

FINANCING



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	
Construction	
Commissioning	2014/3
Last completed Phase :	FID

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+100,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Virtual IP (GTS) NL-DE	Yes	entry	97,00		
Virtual Ips (GTS) NL-DE (NCG)	Yes	entry	24,00	Hub Netherlands (VIP NL/NCG)	Hub Netherlands
Virtual Ips (GTS) NL-DE (Gaspool)	Yes	entry	73,00	Hub Netherlands (VIP NL/Gaspool)	Hub Netherlands
Virtual IP (GTS) NL-BE	Yes	exit	203,00	Hub Netherlands	Hub Netherlands (VIP NL/BE)
UGS - NL - GTS/DE	Yes	entry	111,00	Storage Germany	Hub Netherlands

DESCRIPTION OF THE PROJECT

Various system capacity enhancements (further expansion of gas roundabout, Integrated Open Season, connection to Bergermeer Storage)

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes, o SoS
o Market Integration (Increase of competition)
o Import
o Quality Conversion
o Security of Supply
Further expansion of the gas roundabout increases SoS since it enables additional import of gas and also connects storages to the gas networks. Furthermore, interconnection capacity between TSOs is increased which increases market integration.
,

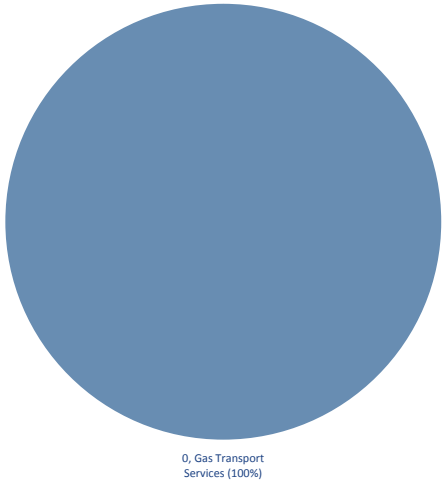
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-191	Blending	Non-FID

Pipeline including CS

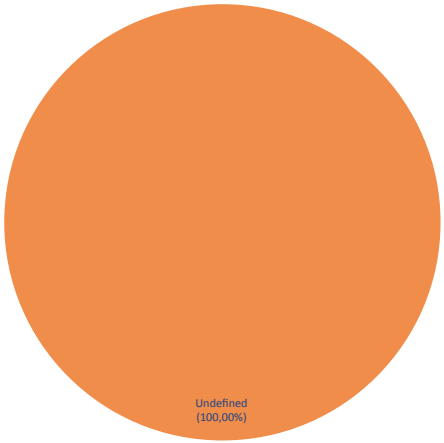
SPONSORS



GENERAL INFORMATION

Promoter	Gasunie Transport Services B.V.
Operator	Gasunie Transport Services B.V.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

FINANCING



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	
Construction	
Commissioning	2020
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

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

DESCRIPTION OF THE PROJECT
Additional blending facilities to allow additional Quality Conversion

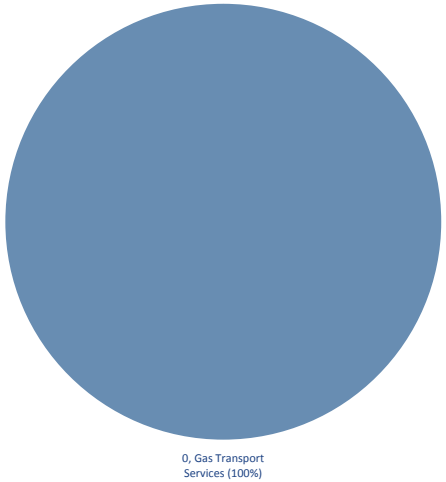
EXPECTED BENEFITS
Security of Supply, Market integration, Diversification of sources,

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	**Private financing**	**Multilateral financing**

TRA-N-192	Entry capacity expansion GATE terminal	Non-FID

Pipeline including CS

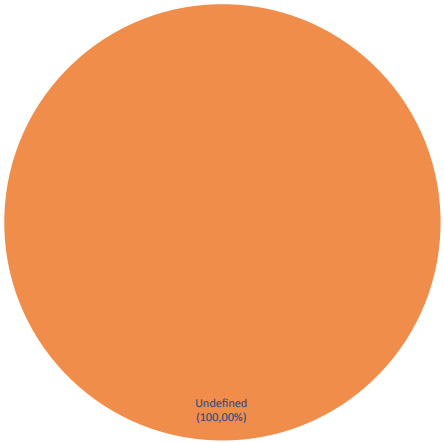
SPONSORS



GENERAL INFORMATION

Promoter	Gasunie Transport Services B.V.
Operator	Gasunie Transport Services B.V.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

FINANCING



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	
Construction	
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+25,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Gate Terminal (I)	Yes	entry	200,00	LNG Terminals Netherlands	Hub Netherlands

DESCRIPTION OF THE PROJECT

Expansion of entry capacity into GTS network

EXPECTED BENEFITS

Security of Supply, Diversification of sources, Diversification of routes,

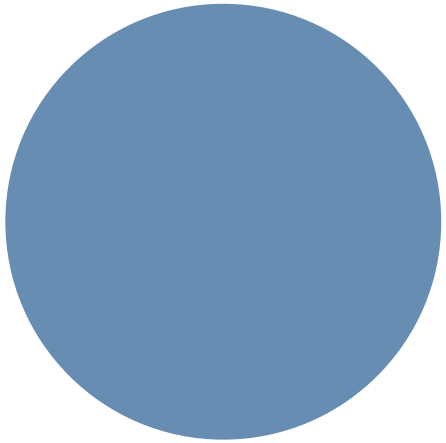
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-193	Gas Compressor Optimisation Program	Non-FID

Pipeline including CS

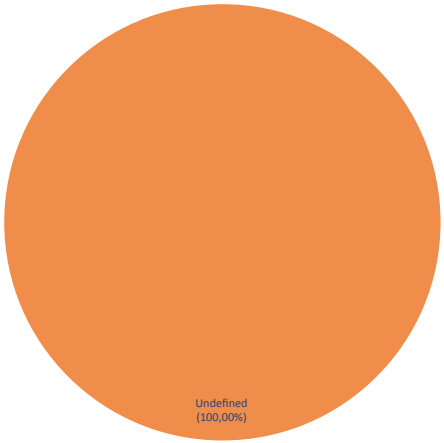
SPONSORS



GENERAL INFORMATION

Promoter	Gasunie Transport Services B.V.
Operator	Gasunie Transport Services B.V.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



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	
Construction	
Commissioning	2015
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total Compressor Power (MW)	+540,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Project is carried out in order to to comply with Industrial Emissions Directive

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Sustainability by reduction of emissions,

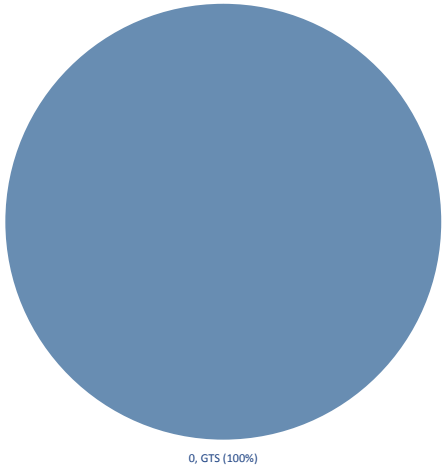
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-313	H-gas transport from NL to D*	Non-FID

Pipeline including CS

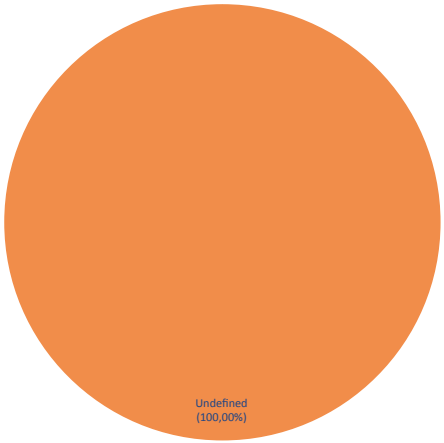
SPONSORS



GENERAL INFORMATION

Promoter	Gasunie Transport Services B.V.
Operator	Gasunie Transport Services B.V.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



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	
Construction	
Commissioning	2022
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Virtual Ips (GTS) NL-DE (NCG)	Yes	exit	240,00	Hub Netherlands	Hub Netherlands (VIP NL/NCG)
Bocholtz	Yes	exit	240,00	Hub Netherlands (VIP NL/NCG)	Hub Germany (NCG)

DESCRIPTION OF THE PROJECT

None

EXPECTED BENEFITS

Security of Supply, Market integration, Diversification of sources, Diversification of routes,

COMMENTS ABOUT THE PROJECT FINANCING

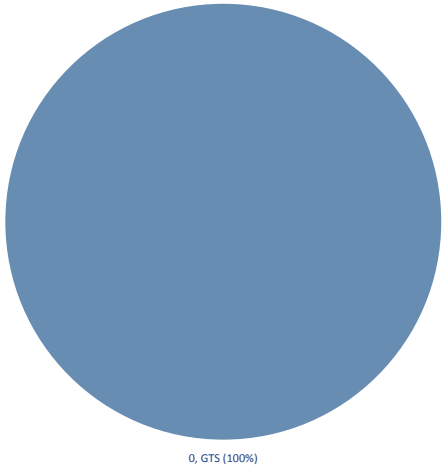
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-N-314	Transport from OSZ/Bunde to Julianadorp*	Non-FID

Pipeline including CS

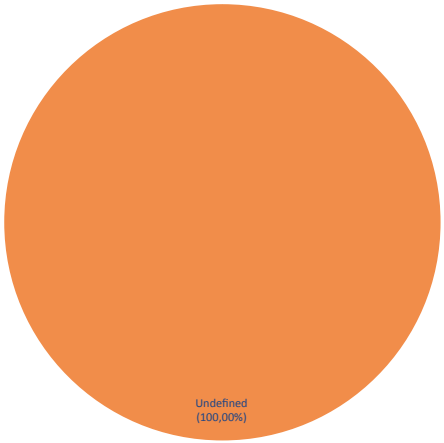
SPONSORS



GENERAL INFORMATION

Promoter	Gasunie Transport Services B.V.
Operator	Gasunie Transport Services B.V.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

FINANCING



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	
Construction	
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Virtual Ips (GTS) NL-DE (Gaspool)	Yes	entry	170,00	Hub Netherlands (VIP NL/Gaspool)	Hub Netherlands
Julianadorp (GTS) /Balgzand (BBL)	No	exit	0,00	Hub Netherlands	Interconnector Netherlands / BBL

DESCRIPTION OF THE PROJECT

Firming up transmission capacity

EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING

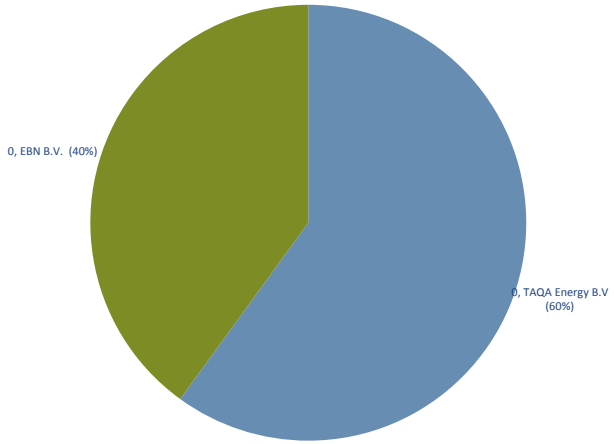
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

UGS-F-052	Gas Storage Bergermeer (GSB)	FID

Storage Facility

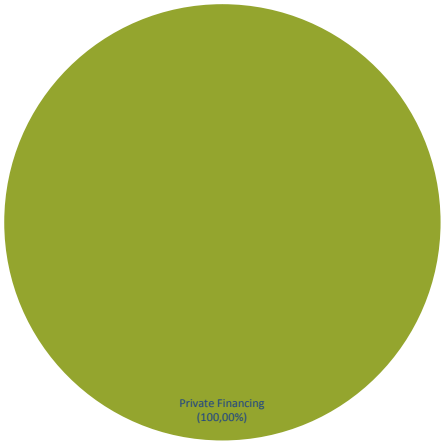
SPONSORS



GENERAL INFORMATION

Promoter	TAQA Gas Storage B.V.
Operator	TAQA Gas Storage B.V.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	www.bergermeergasstorage.com/

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	2012 Q2
FID	2009 Q4
Construction	2012 Q2
Commissioning	2014/1
Last completed Phase :	Permitting

TECHNICAL INFORMATION

Storage facility	Gas Storage Bergermeer
Working volume (mcm)	+4.100,00
Injectability (mcm/d)	+42,00
Deliverability (mcm/d)	+57,00

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Bergermeer	Yes	exit	627,00	Storage Netherlands	Hub Netherlands
	Yes	entry	462,00	Hub Netherlands	Storage Netherlands

DESCRIPTION OF THE PROJECT

Open access seasonal storage, 4.1 BCM working gas

EXPECTED BENEFITS

Security of Supply, Market integration (Trading, infrastructure and transport in northwestern Europe), Diversification of sources, N-1 National (Netherlands), Back-up for renewables, o SoS
o Market Integration (Increase of competition)
Bergermeer Gas Storage will significantly enhance the security of energy supply to Dutch and European consumers, providing a reserve of the equivalent to the annual gas consumption of approximately 1.6 million Dutch households. The planned working volume amounts to 4.1 bcm. It will also be a major contributor to liquidity in the North-West European gas markets.
The project is a valuable contribution towards the ambition the Dutch State to realise the 'gas roundabout of North-West Europe' in The Netherlands.
Once commercially operational, the majority of the capacity of the facility will be made available for third party access. This will contribute to increased competition on the market.
,

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

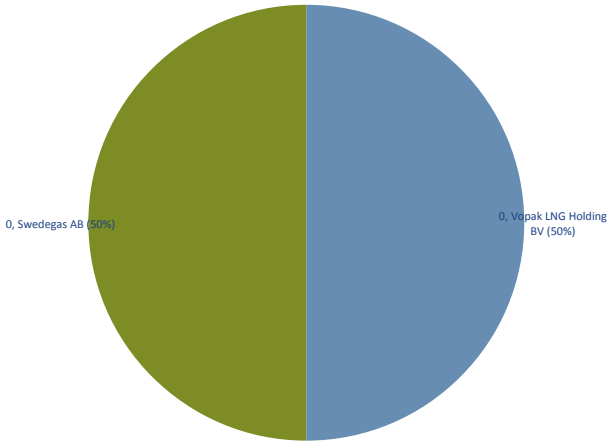
Sweden


SWEDEN
STOCKHOLM
Brunnsviksholmen
(Nynäshamn)
Lysekil
Stenungsund
Vallby Kile
Göteborg LNG
Göteborg
Jönköping
Gislaved
Gnosjö
Varberg
Halmstad
Skallen
Aalborg
Kattegat
DENMARK
COPENHAGEN
Fredericia
Stenlille
Avedøre
Dragør
Malmö
Trelleborg
NORD STREAM

LNG-N-032	Gothenburg LNG (preliminary)	Non-FID

LNG Terminal

SPONSORS

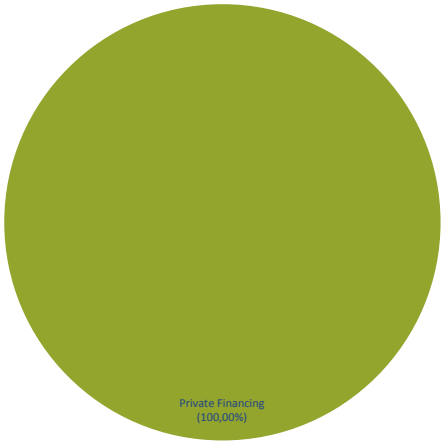


GENERAL INFORMATION

Promoter	Swedegas AB
Operator	Swedegas AB
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	

TEN-E Requests	Date of Request	Year Funding Granted
	1/06/12	Not yet

FINANCING



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	
Construction	
Commissioning	2015
Last completed Phase :	

TECHNICAL INFORMATION

Regasification facility	Gothenburg LNG (preliminary)
Expected volume (bcm/y)	+0,50
Storage capacity (m3)	+20.000,00
Send-out (mcm/d)	+2,00
Ship size (m3)	30.000,00
Reloading ability ?	Yes

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Gothenburg LNG	Yes	entry	24,00	LNG Terminals Sweden	Hub Sweden

DESCRIPTION OF THE PROJECT

A LNG terminal, including connection to the transmission grid, placed in the Gothenburg harbor.

EXPECTED BENEFITS

Security of Supply, Reverse Flows, Diversification of sources, Diversification of routes, Facilitates supply to non grid customers, such as industry replacing oil and future bunkering of ships to comply with the coming SECA regulation.,

COMMENTS ABOUT THE PROJECT FINANCING

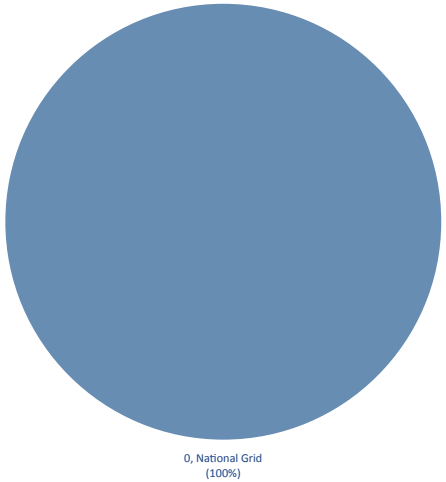
Public financing	Private financing	Multilateral financing

United Kingdom

LNG-N-290	Isle of Grain - Phase 4 Expansion*	Non-FID

LNG Terminal

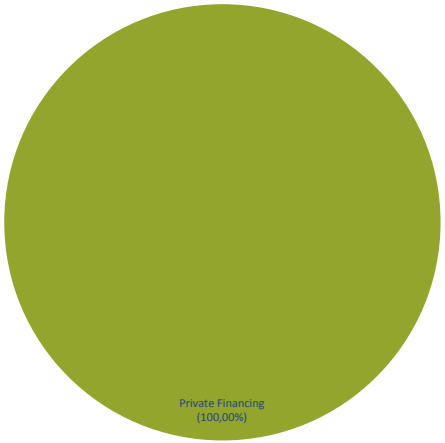
SPONSORS



GENERAL INFORMATION

Promoter	National Grid Gas plc
Operator	National Grid Gas plc
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.nationalgrid.com/uk/grainlng

FINANCING



THIRD-PARTY ACCESS REGIME

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

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2018
Last completed Phase :	Market test

TECHNICAL INFORMATION

Regasification facility	Isle of Grain
Expected volume (bcm/y)	
Storage capacity (m3)	
Send-out (mcm/d)	
Ship size (m3)	
Reloading ability ?	No

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

DESCRIPTION OF THE PROJECT
None

EXPECTED BENEFITS
Security of Supply, Diversification of sources,

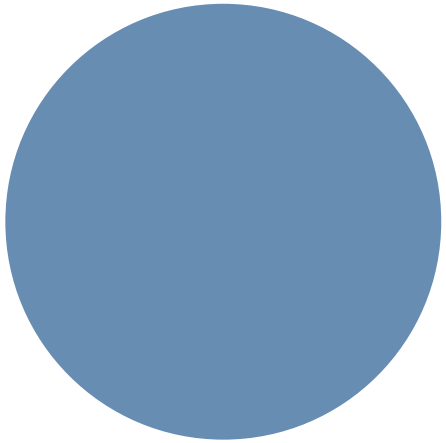
COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	**Private financing**	**Multilateral financing**

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

TRA-F-025	System Capacity Enhancements FID	FID

Pipeline including CS

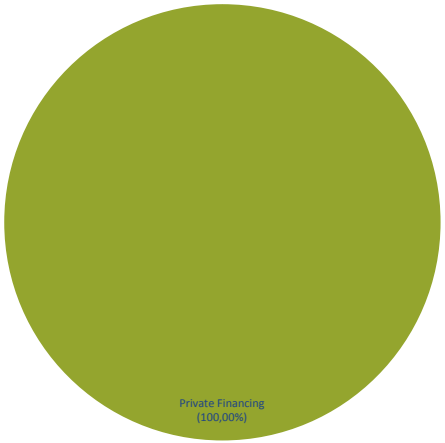
SPONSORS



GENERAL INFORMATION

Promoter	National Grid Gas plc
Operator	National Grid Gas plc
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	www.nationalgrid.com/

FINANCING



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	
Construction	
Commissioning	2014
Last completed Phase :	FID

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	3
Total Pipeline Length (km)	
Total Compressor Power (MW)	+118,00
Expected Load Factor	

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

DESCRIPTION OF THE PROJECT

New electric drive unit to be installed as part of the Emissions Reduction Programme.

EXPECTED BENEFITS

The compression fleet enhancements currently being completed by National Grid are installing alternative compression fuel capability at selected sites; this will enable the bulk of compression at these sites to be electrically driven thereby reducing station emission levels.,

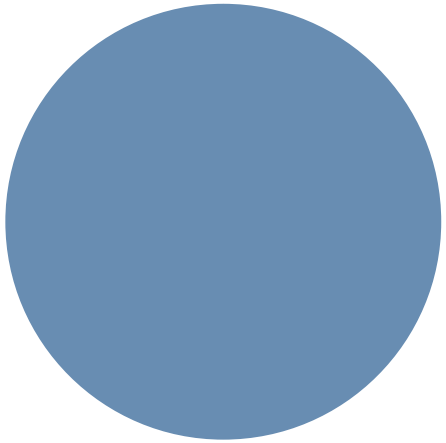
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-026	System Capacity Enhancements non-FID - National Grid	Non-FID

Pipeline including CS

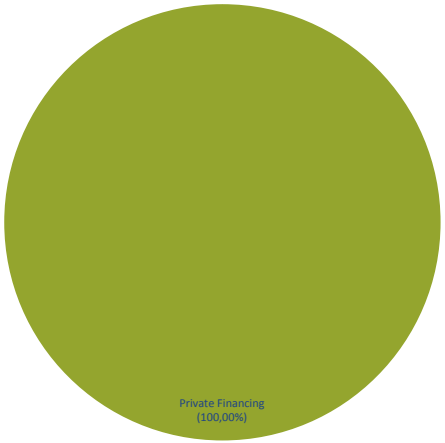
SPONSORS



GENERAL INFORMATION

Promoter	National Grid Gas plc
Operator	National Grid Gas plc
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.nationalgrid.com/

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	2
Total Pipeline Length (km)	+93,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

New pipelines to be constructed as part of the pre-FID System Capacity Enhancements

EXPECTED BENEFITS

The system capacity enhancements proposed by National Grid will ensure that despite the uncertainty regarding the pattern of supplies – in terms of both volume and location – sufficient gas can be transmitted under a variety of supply scenarios in order to meet both the predicted peak demand and lower levels of demand.,

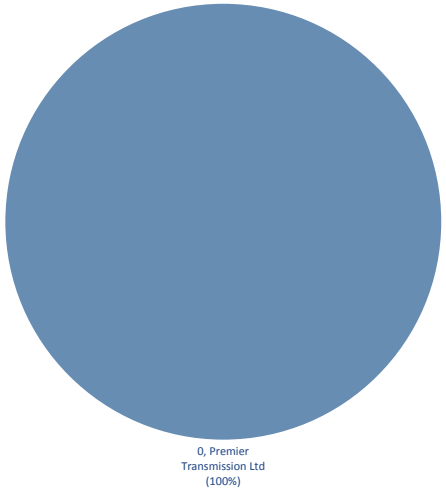
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-027	Physical reverse flow from Northern Ireland to Great Britain and Republic of Ireland via Scotland to Northern Ireland pipeline	Non-FID

Pipeline including CS

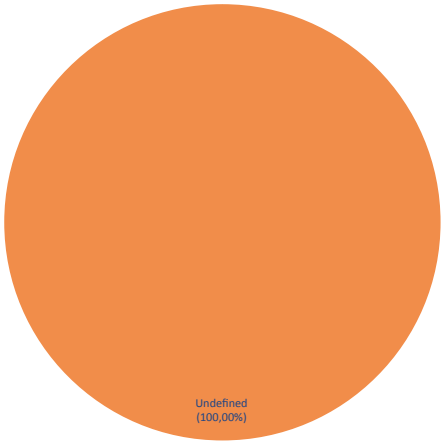
SPONSORS



GENERAL INFORMATION

Promoter	Premier Transmission Ltd
Operator	Premier Transmission Ltd
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Yes
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	2014
FID	2013
Construction	2014
Commissioning	2016
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total Compressor Power (MW)	+9,50
Expected Load Factor	+0,20

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Twynholm: Scotland - Northern Ireland (SNIP)	**No**	**exit**	**264,00**		

DESCRIPTION OF THE PROJECT

Installation of bi-drectional compression on Scotland to Northern Ireland pipeline (SNIP); pipework modifications at 2 AGI's to allow bidirectional metering and flow control and moving gas odourisation point to a new point(s) downstream of the bidirectional transmission system.

EXPECTED BENEFITS

Security of Supply, Market integration, Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Ireland), Back-up for renewables,
,

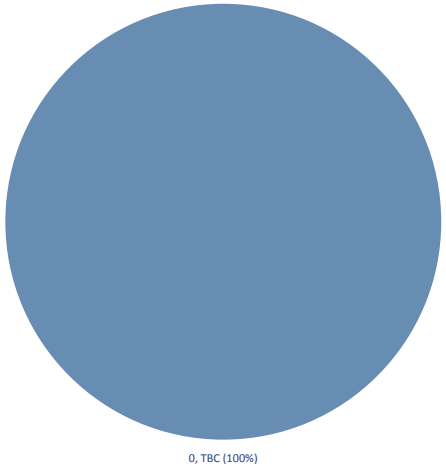
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-293	Network Extensions to the West of Northern Ireland*	Non-FID

Pipeline including CS

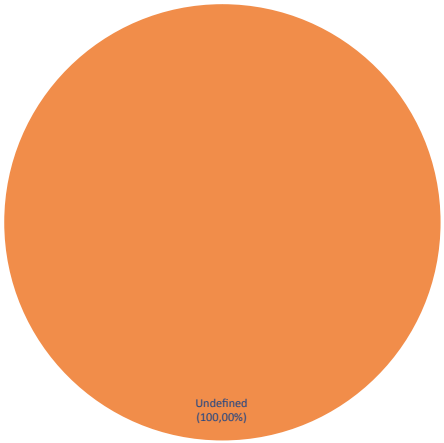
SPONSORS



GENERAL INFORMATION

Promoter	Premier Transmission Ltd
Operator	Premier Transmission Ltd
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



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

End of permitting phase	
FID	
Construction	
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+177,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

The project aims to extend the existing Northern Ireland natural gas network to the five largest towns in the counties Tyrone, Fermanagh and South Londonderry.

EXPECTED BENEFITS

Security of Supply, Diversification of routes, Back-up for renewables,

COMMENTS ABOUT THE PROJECT FINANCING

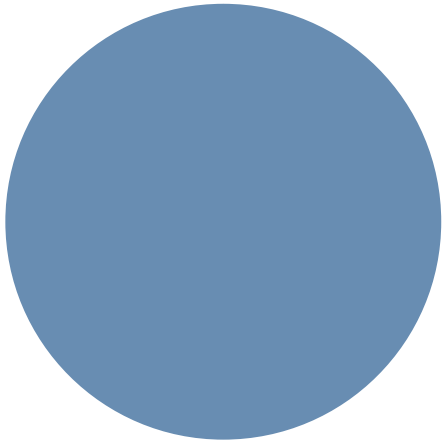
Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

UGS-F-006	Stublach - Stage 1	FID

Storage Facility

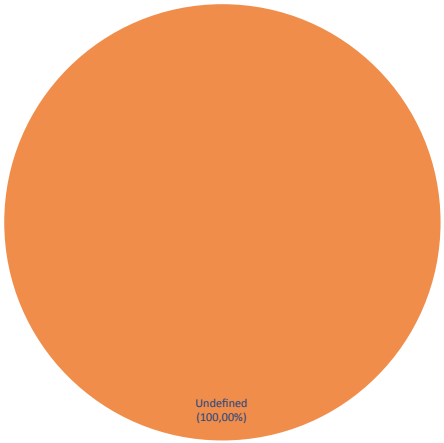
SPONSORS



GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy UK
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	www.storengy.co.uk/About-Storengy/Projects.php

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Yes
Exemption granted ?	Yes
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2014/4
Last completed Phase :	Construction

TECHNICAL INFORMATION

Storage facility	Stublach Gas Storage
Working volume (mcm)	+100,00
Injectability (mcm/d)	+16,00
Deliverability (mcm/d)	+16,00

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Development of a new salt cavern storage facility in the UK.

EXPECTED BENEFITS

Security of Supply, Market integration, N-1 National (UK), N-1 Regional (UK, Ireland), Back-up for renewables,
o Market Integration (Increase of competition)
The project will contribute to the increase of security of supply in the region and will provide more flexibility to the market thus facilitating competition.
,

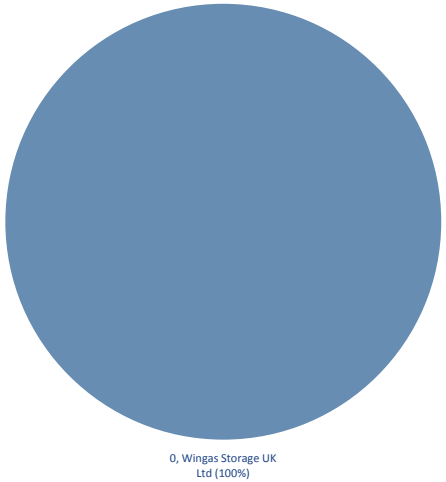
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-033	Saltfleetby	Non-FID

Storage Facility

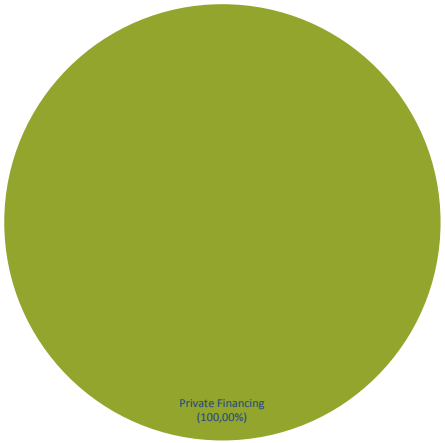
SPONSORS



GENERAL INFORMATION

Promoter	Wingas Storage UK Ltd
Operator	Wingas Storage UK Ltd
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.wingas-storage.com/

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Regulated
Applied for Exemption ?	Yes
Exemption granted ?	Yes
% Exemption in entry direction	100%
% Exemption in exit direction	100%

SCHEDULE

End of permitting phase	
FID	2015 Q2
Construction	
Commissioning	2018/2
Last completed Phase :	Permitting

TECHNICAL INFORMATION

Storage facility	Saltfleetby UGS
Working volume (mcm)	+775,00
Injectability (mcm/d)	+5,20
Deliverability (mcm/d)	+8,50

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Saltfleetby	Yes	entry	57,20	Hub United Kingdom	Storage United Kingdom
	Yes	exit	93,50	Storage United Kingdom	Hub United Kingdom

DESCRIPTION OF THE PROJECT

Conversion of the Saltfleetby, Lincolnshire, gas field to a seasonal gas storage facility

EXPECTED BENEFITS

Security of Supply, The project will provide two clear benefits. First, it will increase the level of gas storage in the UK . Secondly it will provide storage capacity for the shareholders and third parties to enable them better to meet their commercial objectives,

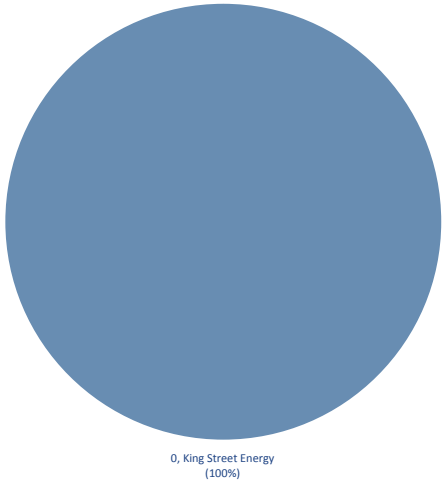
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-087	King Street Energy Storage Project	Non-FID

Storage Facility

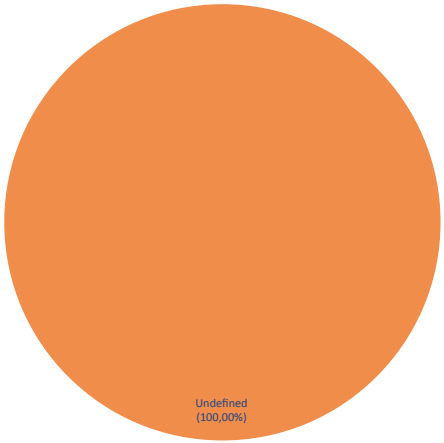
SPONSORS



GENERAL INFORMATION

Promoter	King Street Enegy Ltd
Operator	King Street Enegy Ltd
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	1
Web Link	www.kingstreetenergy.com

FINANCING



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	2015 Q2
FID	2013 Q3
Construction	2014 Q1
Commissioning	2017/4
Last completed Phase :	Construction

TECHNICAL INFORMATION

Storage facility	
Working volume (mcm)	+348,00
Injectability (mcm/d)	+32,00
Deliverability (mcm/d)	+32,00

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
King Street	Yes	entry	352,00	Hub United Kingdom	Storage United Kingdom
	Yes	exit	352,00	Storage United Kingdom	Hub United Kingdom

DESCRIPTION OF THE PROJECT

Storage facility; Salt Cavern Storage Facility

EXPECTED BENEFITS

Market integration, Market Integration (Increase of competition)
Project increases available gas storage in the UK
,

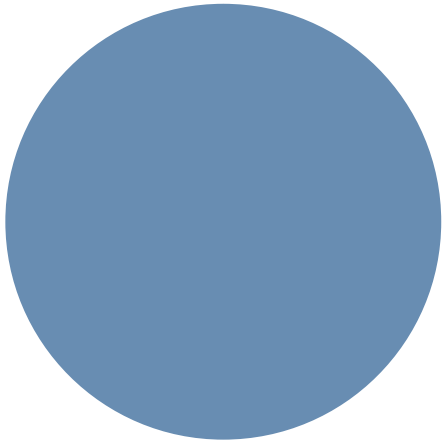
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-203	Preesall Gas Storage	Non-FID

Storage Facility

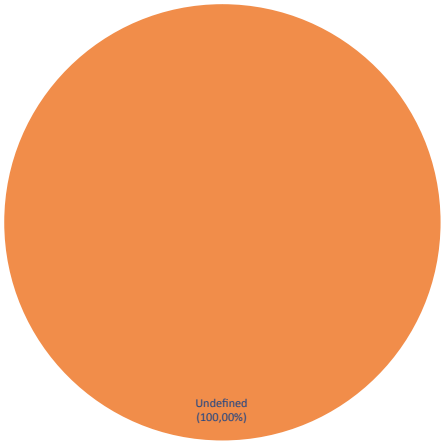
SPONSORS



GENERAL INFORMATION

Promoter	Halite Energy Group Ltd
Operator	Halite Energy Group Ltd
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.halite-energy.co.uk/

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	2013
FID	2013
Construction	2016
Commissioning	2018
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Preesall
Working volume (mcm)	+600,00
Injectability (mcm/d)	+30,00
Deliverability (mcm/d)	+30,00

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Preesall	Yes	exit	330,00	Storage United Kingdom	Hub United Kingdom
	Yes	entry	330,00	Hub United Kingdom	Storage United Kingdom

DESCRIPTION OF THE PROJECT

A fast cycle salt cavern project with shallow depths allowing for rapid turnaround at low operating costs

EXPECTED BENEFITS

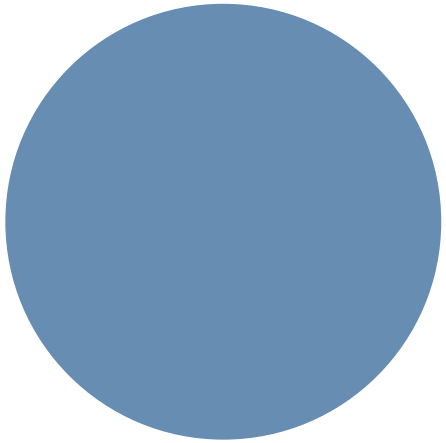
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-266	Stublach - Stage 2	Non-FID

Storage Facility

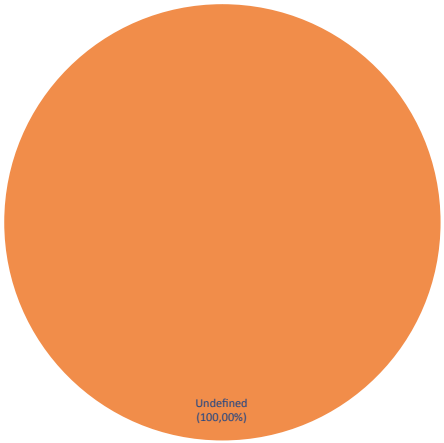
SPONSORS



GENERAL INFORMATION

Promoter	Storengy
Operator	Storengy UK
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	www.storengy.co.uk/About-Storengy/Projects.php

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Yes
Exemption granted ?	Yes
% Exemption in entry direction	0%
% Exemption in exit direction	0%

SCHEDULE

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

TECHNICAL INFORMATION

Storage facility	Stublach Gas Storage
Working volume (mcm)	+300,00
Injectability (mcm/d)	+16,00
Deliverability (mcm/d)	+16,00

PROJECTED CAPACITY INCREASES

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

DESCRIPTION OF THE PROJECT

Development of a new salt cavern storage facility in the UK.

EXPECTED BENEFITS

Security of Supply, Market integration, N-1 National (UK), N-1 Regional (UK, Ireland), Back-up for renewables,
o Market Integration (Increase of competition)
The project will contribute to the increase of security of supply in the region and will provide more flexibility to the market thus facilitating competition.
,

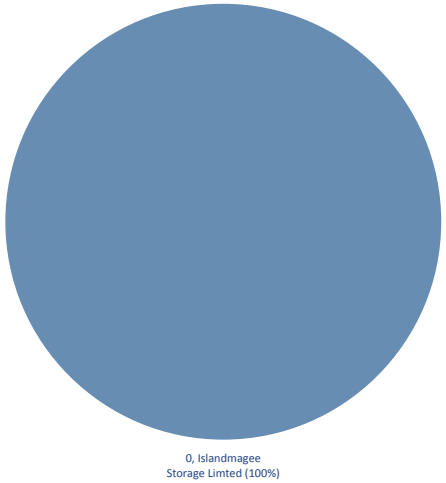
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-294	Islandmagee Gas Storage Facility*	Non-FID

Storage Facility

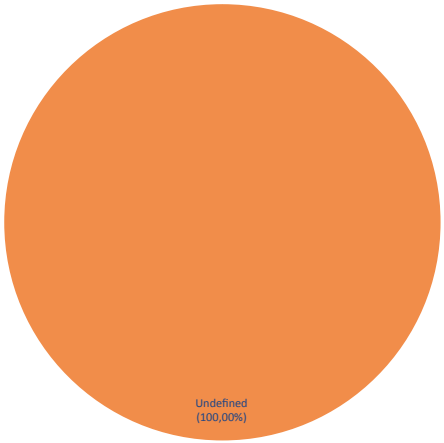
SPONSORS



GENERAL INFORMATION

Promoter	Premier Transmission Ltd
Operator	Islandmagee Storage Ltd
TEN-E Project ?	Project of Common Interest
Interested by PCI ?	Yes
IGAs	None
Web Link	www.islandmageestorage.com

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Yes
Exemption granted ?	Yes
% Exemption in entry direction	100%
% Exemption in exit direction	100%

SCHEDULE

End of permitting phase	2013 Q4
FID	2015 Q1
Construction	2015 Q1
Commissioning	2018/2
Last completed Phase :	Planned

TECHNICAL INFORMATION

Storage facility	Islandmagee Storage Facility
Working volume (mcm)	+500,00
Injectability (mcm/d)	+12,00
Deliverability (mcm/d)	+22,00

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Moffat	No	exit	12,00		

DESCRIPTION OF THE PROJECT

IMSL plans to create seven caverns, capable of storing up to a total of 500 million cubic metres of gas. This facility will safeguard Northern Ireland's ability to meet the increasing peak gas demand, whilst also providing a greater degree of security of supply to Ireland and Great Britain.

EXPECTED BENEFITS

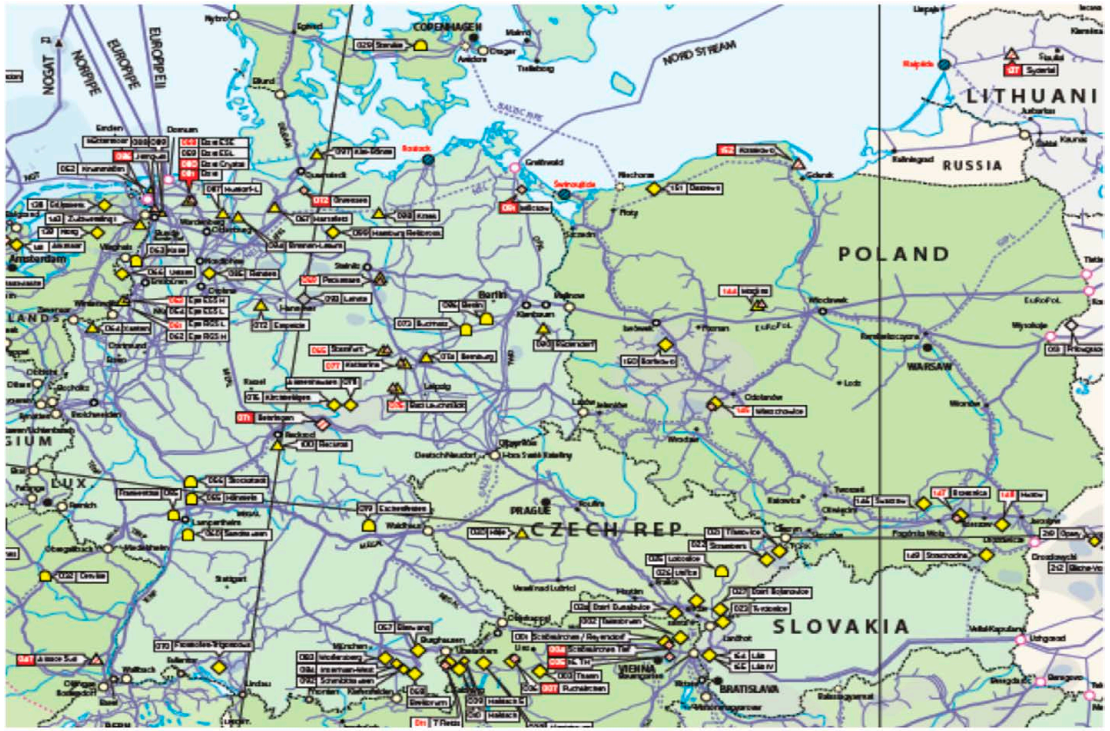
Security of Supply, Market integration (Northern Ireland / Ireland / Great Britain), Reverse Flows, Diversification of routes, N-1 National (Northern Ireland / Ireland / Great Britain), N-1 Regional (Northern Ireland / Ireland / Great Britain), Back-up for renewables,

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

* A new project in the GRIP 2014-2023 data collection window, that was not yet in last TYNDP 2013-2022

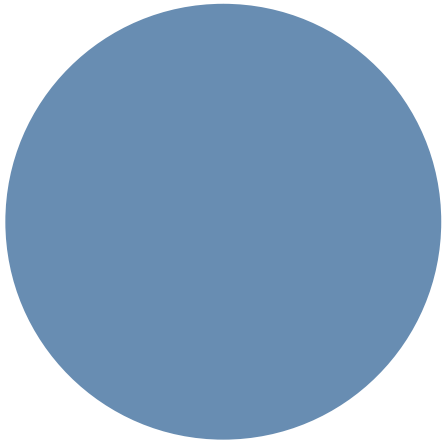
Projects outside NW Region



TRA-F-134	GAZELLE project	FID

Pipeline including CS

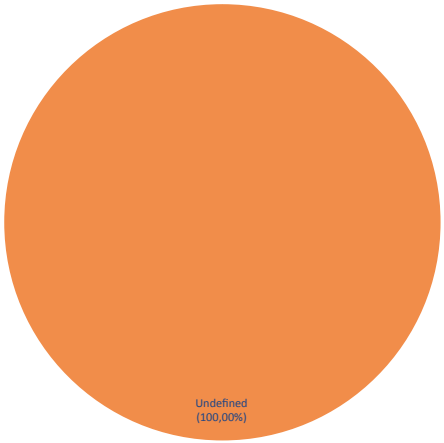
SPONSORS



GENERAL INFORMATION

Promoter	NET4GAS, s.r.o.
Operator	NET4GAS, s.r.o.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	http://www.net4gas.cz/en/projekt-gazela/

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	Yes
Exemption granted ?	Yes
% Exemption in entry direction	100%
% Exemption in exit direction	0%

SCHEDULE

End of permitting phase	2012
FID	2012
Construction	
Commissioning	2013
Last completed Phase :	Construction

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+158,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Opal (DE)/Brandov (CZ)	Yes	entry	960,00	Interconnector Germany (GASPOOL) / OPAL	Interconnector Czech Republic / Gazelle

DESCRIPTION OF THE PROJECT

The project creates together with the projects Nord Stream and OPAL the so called Northern Route for Russian gas supplies to Europe and it has important influence on increasing security of supply through the diversification of gas routes.

EXPECTED BENEFITS

Security of Supply, Market integration (CEE Region), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (the Czech Republic), N-1 Regional (CEE Region), Back-up for renewables, Power-to-gas, Biogas,

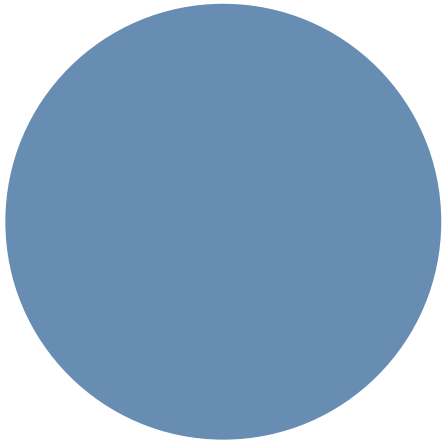
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-F-156	CS Border at Biriatou)	FID

Pipeline including CS

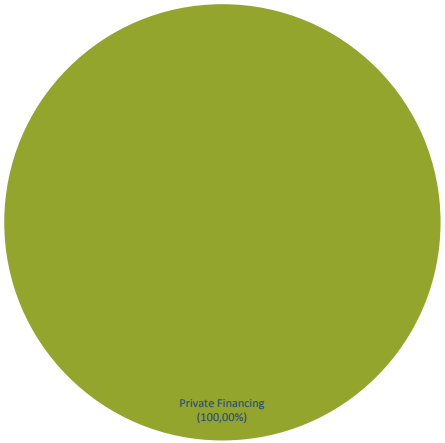
SPONSORS



GENERAL INFORMATION

Promoter	Enagás S.A.
Operator	ETN (Enagás Transporte del Norte)
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

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	2015/4
Last completed Phase :	FID

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	
Total Compressor Power (MW)	+21,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Biriatou (FR) / Irun (ES)	Yes	exit	55,00	Hub Spain	Hub France (PEG TIGF)
	Yes	entry	55,00	Hub France (PEG TIGF)	Hub Spain

DESCRIPTION OF THE PROJECT

None

EXPECTED BENEFITS

Security of Supply, Market Integration, Enhancement of Internal Network; reduction of internal congestion, N-1 compliance, Integration of LNG plants, Integration of UGS, Integration of new Gas fired power plants
,

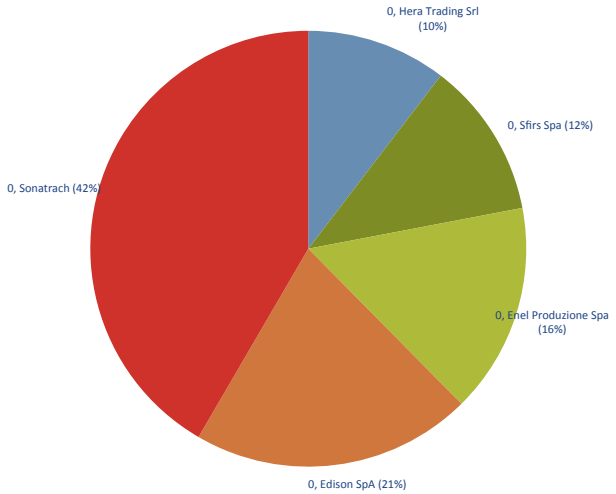
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-012	GALSI Pipeline	Non-FID

Pipeline including CS

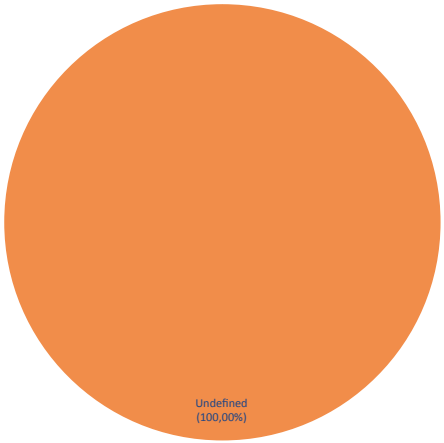
SPONSORS



GENERAL INFORMATION

Promoter	Edison
Operator	Galsi S.p.A.
TEN-E Project ?	Project of European Interest
Interested by PCI ?	Yes
IGAs	1
Web Link	www.galsi.it

FINANCING



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

End of permitting phase	2013 Q4
FID	2014 Q2
Construction	2015 Q1
Commissioning	2018/1
Last completed Phase :	FEED

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	3
Total Pipeline Length (km)	+861,00
Total Compressor Power (MW)	+151,00
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Olbia (Galsi)	Yes	exit	30,50	Interconnector Italia (National) / GALSI	Hub Italia (Sardinia)
	Yes	entry	244,00	Hub Italia (Sardinia)	Interconnector Italia (National) / GALSI
Algerian Coast (Galsi)	Yes	entry	244,00	Supplier Algeria	Interconnector Algeria (International) / GALSI
Piombino (Galsi)	Yes	exit	244,00	Interconnector Italia (National) / GALSI	Hub Italia
Porto Botte (Galsi)	Yes	exit	244,00	Interconnector Algeria (International) / GALSI	Hub Italia (Sardinia)

DESCRIPTION OF THE PROJECT

Gas pipeline project aiming to create a new link between Algeria and Italy via Sardinia

EXPECTED BENEFITS

Security of Supply, Market integration (The Galsi project represents an unique opportunity to bring natural gas to Sardinia island, currently not connected to the Italian gas network.
Similar benefits could potentially be further extended to Corsica, through the Cyrénéé Projct (see above), improving thereby cohesion within Europe and the already excellent relations between Italy and France.), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (
On the basis of the “Transportation Capacity Multi – Annual” as published in Snam web site, in the year of commissioning of Galsi project, the largest gas supply infrastructure to Italy – in terms of transportation capacity – will be the Trans Austrian Gas pipeline (TAG) with a firm capacity of 107.000.000 Sm3/day at the entry point of Tarvisio.
Therefore, in the event of technical or political disruption of the TAG pipeline, additional capacities could be made available by maximizing the gas flow in the Galsi pipeline, to an extent that will depend upon the then prevailing operating conditions.
), Back-up for renewables, Power-to-gas, Biogas, - The Galsi project will improve security of supply in Italy and Europe, providing for a new and more efficient route for Algerian gas to reach the centre of Italian gas consumption (located in northern Italy) and further on the northern European markets. In the longer term, with the development of new projects interconnecting different gas sources in Africa (e.g. new Algerian shale gas or TSGP project for Nigerian gas), the Galsi pipeline could provide a highly strategic diversification of gas supply routes to European markets and their supply flexibility.
- The Galsi project will contribute to the creation of an Italian gas hub for gas supply to Europe which, through the increase of gas liquidity, will enable the export of major gas volumes from Italy to other European markets through the development of reverse flow capacities.
- Reduction of GHG emissions: the Galsi project complies with sustainable development guidelines, i.e. the promotion of the substitution of high pollutant fossil fuels with a low pollutant such as natural gas, the improvement of efficiency in the electricity production by switching from other fossil fuels to natural gas, and the penetration of the use of natural gas in industrial/residential and tertiary sector.
- Support back-up of renewable energy: a significant quota of electricity generation in Italy (today ~50%) is represented by CCGTs whose utilization is increasingly shifting towards a back-up of RES, in the light of their dramatic increase witnessed in these last years.
- Market Integration: through GALSI, new entrants will be able to develop and/or consolidate their market positions in the Italian gas market through an independent infrastructure;,

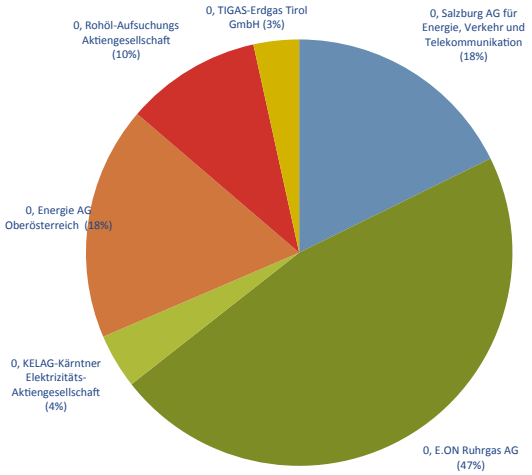
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-035	Tauerngasleitung Gas Pipeline Project	Non-FID

Pipeline including CS

SPONSORS

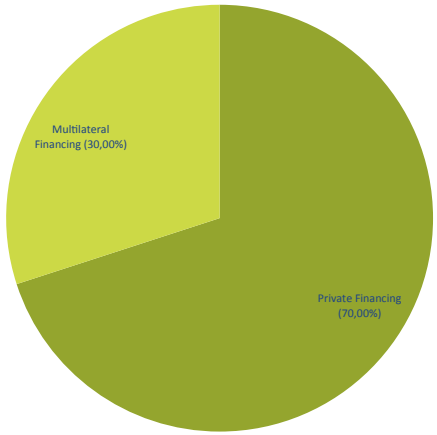


GENERAL INFORMATION

Promoter	**Tauerngasleitung GmbH**
Operator	**Tauerngasleitung GmbH**
TEN-E Project ?	**Project of common interest**
Interested by PCI ?	**Yes**
IGAs	**None**
Web Link	www.tauerngasleitung.at

TEN-E Requests	Date of Request	Year Funding Granted
	28/04/10	2011
	26/04/06	2007

FINANCING



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**

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	**1**
Total Pipeline Length (km)	**+290,00**
Total Compressor 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	Interconnector Austria / Tauerngas Leitung	Hub Italia
Haiming (bayernets) - DE / Burghausen (Austrian Hub) - TGL	Yes	entry	148,61	Hub Germany (NCG)	Hub Austria
Haiming (bayernets) - DE / Burghausen (Transit) - TGL	Yes	exit	30,14	Interconnector Austria / Tauerngas Leitung	Hub Germany (NCG)
Haiming (OGE) - DE / Burghausen-Auerbach (Austrian Storage) - TGL	Yes	entry	143,82	Hub Germany (NCG)	Storage Austria
Haiming (bayernets) - DE / Burghausen (Transit) - TGL	Yes	entry	180,74	Hub Germany (NCG)	Interconnector Austria / Tauerngas Leitung
Tarvisio - IT / Arnoldstein (Transit) - TGL	Yes	entry	65,40	Hub Italia	Interconnector Austria / Tauerngas Leitung
Haiming (bayernets) - DE / Burghausen-Auerbach (Austrian Storage) - TGL	Yes	exit	136,65	Storage Austria	Hub Germany (NCG)
Haiming-Oberkappel (OGE) - DE / Burghausen (Transit) - TGL	Yes	exit	33,82	Interconnector Austria / Tauerngas Leitung	Hub Germany (NCG)

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 cross-border 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.,

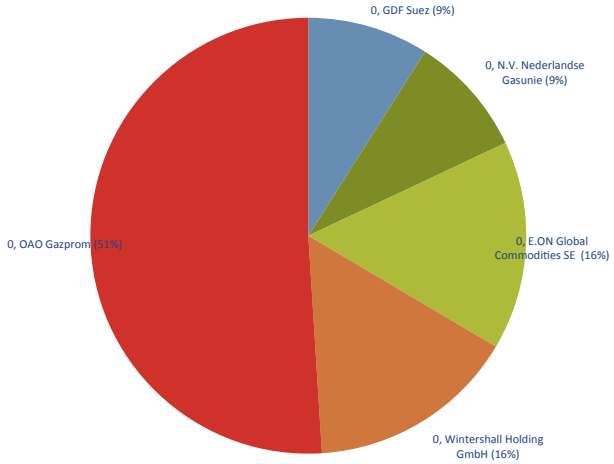
COMMENTS ABOUT THE PROJECT FINANCING

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

TRA-N-069	Nord Stream 4	Non-FID

Pipeline including CS

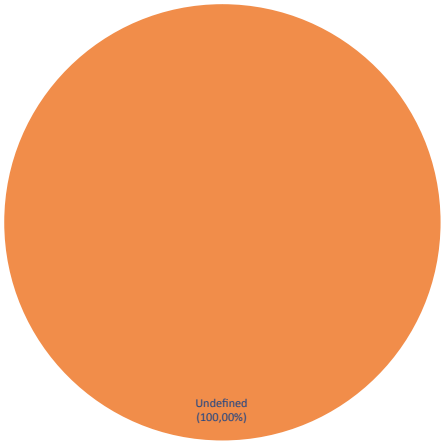
SPONSORS



GENERAL INFORMATION

Promoter	Nord Stream AG
Operator	Nord Stream AG
TEN-E Project ?	Project of European Interest
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.nord-stream.com

FINANCING



THIRD-PARTY ACCESS REGIME

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

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2018/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+1.225,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Greifswald	Yes	exit	871,60	Interconnector Russia / Nord Stream	Supplier Russia / Nord Stream (Greifswald)

DESCRIPTION OF THE PROJECT

natural gas pipeline from Russia to Germany through the Baltic Sea

EXPECTED BENEFITS

Security of Supply, Diversification of sources, Increasing reliability of supply by a modern, direct pipeline connection; increasing the liquidity of the European gas market; meeting the growing import gap, especially of Northwestern Europe in light of declining indigenous production; will as complementary low carbon energy source serve the EU to meet its energy and de-carbonization goals,

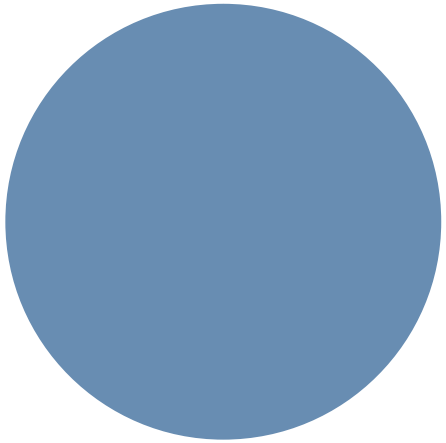
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-161	Iberian-French corridor: Eastern Axis-Midcat Project (Pipeline Figueras-French border)	Non-FID

Pipeline including CS

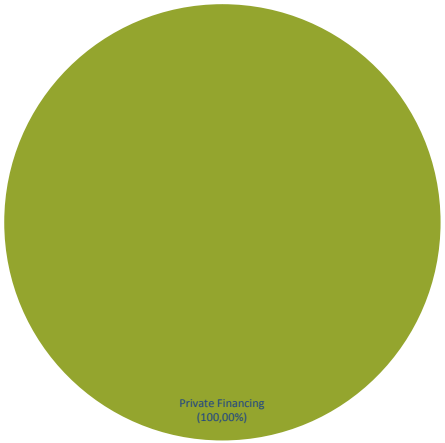
SPONSORS



GENERAL INFORMATION

Promoter	Enagás S.A.
Operator	Enagás S.A.
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	Yes
IGAs	None
Web Link	

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	2023*
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+25,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Le Perthus	Yes	entry	80,00	Hub France (PEG TIGF)	Hub Spain
	Yes	exit	230,00	Hub Spain	Hub France (PEG TIGF)

DESCRIPTION OF THE PROJECT

None

EXPECTED BENEFITS

Security of Supply, Market integration (Iberian peninsula with Europe), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (Spain, France), N-1 Regional (North-south in Western Europe), Back-up for renewables, Security of Supply, Market Integration, Enhancement of Internal Network; reduction of internal congestion, N-1 compliance, Integration of LNG plants, Integration of UGS, Integration of new Gas fired power plants

Figueras-French Border is necessary for the develpment of the Le Perthus IP subproject, part of the Eastern axis-Midcat Project in the North-South gas interconnections in western Europe, which has been submitted as a PCI. The Iberian-French Corridor is crucial to better interconnect the Mediterranean area and thus supplies from Africa and the Northern supply Corridor making a reality the strategy concept of the North-South Corridor in Western Europe.
From an European perspective, developing the full IBERIAN-FRENCH CORRIDOR contribute to spread the diversified portfolio of the South Region as well as opens a path to transport gas from Algeria to central Europe through France. The IBERIAN-FRENCH CORRIDOR will contribute to redistribute and balance the entry of supply sources to Europe, increasing the European diversification of supply by reducing the dependence on the incumbent gas source, jointly with the risks linked to security of supply.
From a regional perspective, highlighted is the better integration of these two countries into the South Region, developing the new cross border interconnection capacity. Developing cross-border capacity between France and Spain will bring the European gas market closer, making possible the development of large scale energy trade between countries

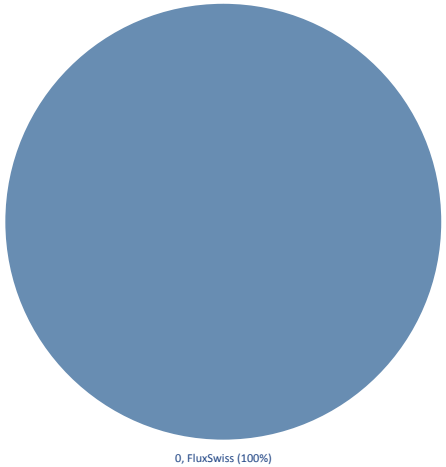
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-230	Reverse Flow Transitgas Switzerland	Non-FID

Pipeline including CS

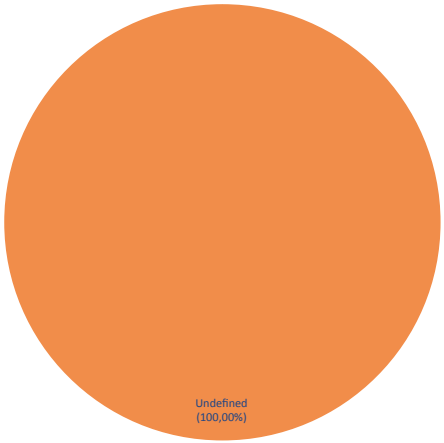
SPONSORS



GENERAL INFORMATION

Promoter	Fluxys
Operator	FluxSwiss
TEN-E Project ?	Not part of TEN-E
Interested by PCI ?	No
IGAs	None
Web Link	

FINANCING



THIRD-PARTY ACCESS REGIME

Considered TPA Regime	Negotiated (e.g. Exemption)
Considered Tariff Regime	Negotiated (e.g. Exemption)
Applied for Exemption ?	No
Exemption granted ?	Not relevant
% Exemption in entry direction	100%
% Exemption in exit direction	100%

SCHEDULE

End of permitting phase	
FID	2014 Q1
Construction	
Commissioning	2017/4
Last completed Phase :	Market test

TECHNICAL INFORMATION

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

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Griespass (CH) / Passo Gries (IT) (FluxSwiss)	Yes	entry		Hub Italia (Passo Gries)	Hub Switzerland
Wallbach (Fluxys TENP/FluxSwiss)	Yes	exit		Hub Switzerland	Hub Germany (NCG)
Oltingue (FR) / Rodersdorf (CH)	Yes	exit		Hub Switzerland	Hub France (PEG North)

DESCRIPTION OF THE PROJECT

Modification of the compressor station at Ruswil, the valve station at Lostorf and the metering station at Wallbach to allow the reversal of the border interconnection points at Gries Pass, Wallbach and Oltingue and a south-north use of the Transitgas pipeline.

EXPECTED BENEFITS

Security of Supply, Market integration (NCG/PSV/PEGNord), Reverse Flows, Diversification of sources, Diversification of routes, N-1 National (DE, FR),

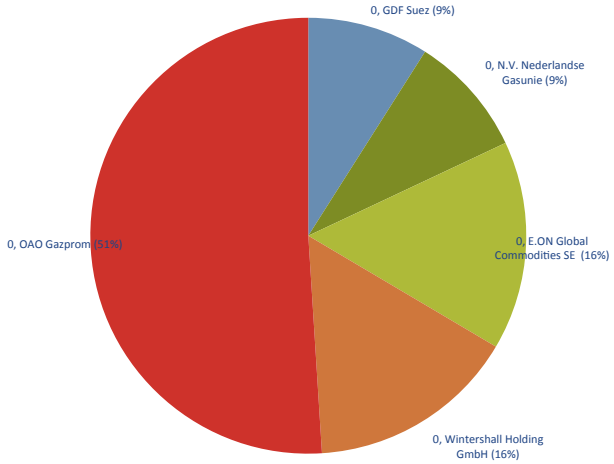
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-267	Nord Stream 3	Non-FID

Pipeline including CS

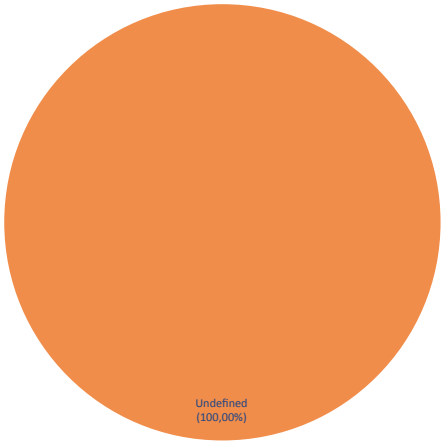
SPONSORS



GENERAL INFORMATION

Promoter	Nord Stream AG
Operator	Nord Stream AG
TEN-E Project ?	Project of European Interest
Interested by PCI ?	Not defined yet
IGAs	None
Web Link	www.nord-stream.com

FINANCING



THIRD-PARTY ACCESS REGIME

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

SCHEDULE

End of permitting phase	
FID	
Construction	
Commissioning	2017/4
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+1.225,00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Greifswald	Yes	exit	871,60	Interconnector Russia / Nord Stream	Supplier Russia / Nord Stream (Greifswald)

DESCRIPTION OF THE PROJECT

natural gas pipeline from Russia to Germany through the Baltic Sea

EXPECTED BENEFITS

Security of Supply, Diversification of sources, Increasing reliability of supply by a modern, direct pipeline connection; increasing the liquidity of the European gas market; meeting the growing import gap, especially of Northwestern Europe in light of declining indigenous production; will as complementary low carbon energy source serve the EU to meet its energy and de-carbonization goals,

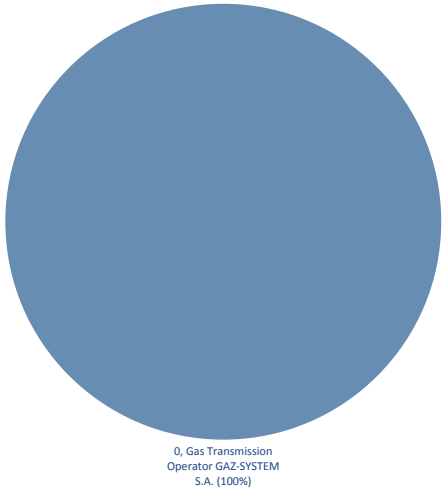
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

TRA-N-271	PL - DK interconnection (Baltic Pipe)	Non-FID

Pipeline including CS

SPONSORS

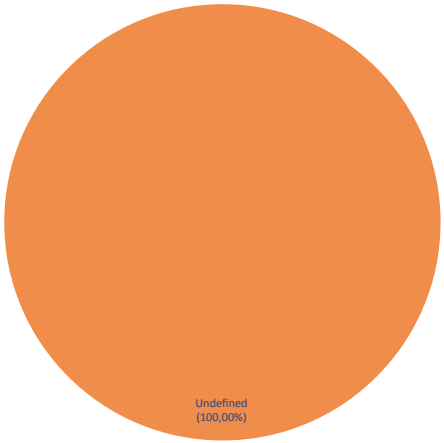


GENERAL INFORMATION

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/integracja-z-europejski-systemem/baltyckibaltic-pipe/

TEN-E Requests	Date of Request	Year Funding Granted
	24/04/09	2010
	30/06/08	2009

FINANCING



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	2015
Construction	
Commissioning	2020
Last completed Phase :	Planned

TECHNICAL INFORMATION

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

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).,

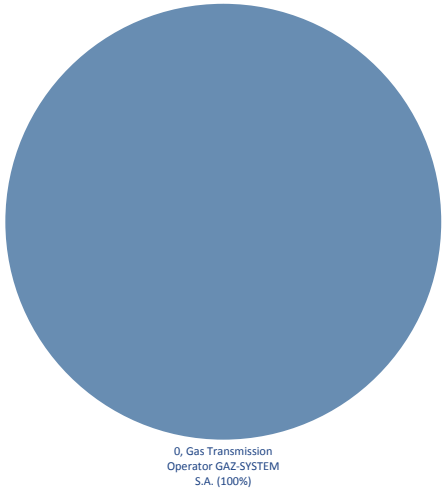
COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing
TEN-E (obtained), support from other EU funds is expected		

TRA-N-274	Upgrade of PL-DE interconnection in Lasów	Non-FID

Pipeline including CS

SPONSORS

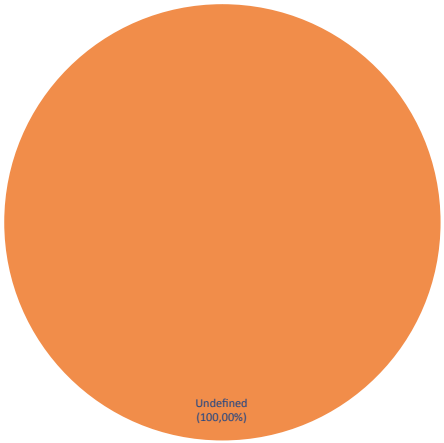


GENERAL INFORMATION

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/

TEN-E Requests	Date of Request	Year Funding Granted
		2012

FINANCING



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	2015
Construction	
Commissioning	2021
Last completed Phase :	Planned

TECHNICAL INFORMATION

# of Pipelines, nodes, CS	4
Total Pipeline Length (km)	+106,00
Total Compressor 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 Lasow 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 upgrade of PL-DE interconnection in Lasow up to 3 bcm/y requires modernization of the transmission systems both in Poland and in Germany.

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		

entsog

european network
of transmission system operators
for gas

ENTSOG AISBL
Avenue de Cortenbergh 100
B-1000 Brussels
T +32 (0)2 894 51 00
info@entsog.eu
www.entsog.eu