

GAS REGIONAL INVESTMENT PLAN 2014 – 2023

Baltic Energy Market

Interconnection Plan



ANNEX: INFRASTRUCTURE PROJECTS



Gasun





Võrguteenus



FID projects Transmission

TRA-F-326

Physical reverse flow on the metering station in Mallnow*

FID

Pipeline including CS

SPONSORS

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

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

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

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

Undefined (100,00%)

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Mallnow	Yes	entry	168.00	Hub Germany (GASPOOL)	Yamal (Poland)

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

EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING

Public financing

Private financing

Multilateral financing

TRA-F-015

Ellund-Egtved

FID

Pipeline including CS



GENERAL INFORMATION	N	FINANCING
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	Private Fir (50,00



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2011	# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID	2010 Q2	Total Pipeline Length (km)	+94.00
Applied for Exemption ?	Not relevant	Construction	2013	Total Compressor Power (MW)	+20.00
Exemption granted ?	Not relevant	Commissioning	2013/4	Expected Load Factor	+0.55
% Exemption in entry direction	0%	Last completed Phase :	FID		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Ellund	Yes	entry	184.80	Hub Denmark (Ellund)	Hub Denmark
	Yes	exit	44.00	Hub Denmark	Hub Denmark (Ellund)
Dragør	Yes	exit	13.20	Hub Denmark	Hub Sweden

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	50% Financed by Energinet.dk	



TRA-F-248

Upgrade of gas infrastructure in northern and central Poland

FID

Pipeline including CS

SPONSORS

Gas Transmission Operator GA2-SYSTEM S.A. (100%)

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



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

		TECHNICAL INFORMATION	
g phase		# of Pipelines, nodes, CS	5
	2007	Total Pipeline Length (km)	+875.00
		Total Compressor Power (MW)	
	2014	Expected Load Factor	
Phase :	FID		

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

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

EXPECTED BENEFITS

Security of supply, market integration (market areas in the Central-Eastern Europe and possibly in the Baltic states), reverse flows, diversification of sources, diversification of routes, N-1 national (Poland and possibly Slovakia, Hungary, Lithuania, Latvia and Estonia), N-1 regional (Central-Eastern Europe, Baltic Sea region), back-up for renewables.

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

FID projects LNG terminals

LNG-F-246

LNG terminal in Świnoujście

LNG Terminal

SPONSORS



GENERAL INFORMATION	J	FINANCING
Promoter	GAZ-SYSTEM S.A.	
Operator	GAZ-SYSTEM S.A.	
TEN-E Project ?	Priority Project	
Interested by PCI ?	No	
IGAs	None	
Web Link	en.gaz-system.pl/terminal-lng/	



THIRD-PARTY ACCESS REGIME		SCHEDULE	TECHNICAL INFORMATION		
Considered TPA Regime	Regulated	End of permitting phase		Regasification facility	LNG terminal in Świnoujście
Considered Tariff Regime	Regulated	FID	2010	Expected volume (bcm/y)	+5.00
Applied for Exemption ?	No	Construction		Storage capacity (m3)	+320,000.00
Exemption granted ?	Not relevant	Commissioning	2014	Send-out (mcm/d)	+13.68
% Exemption in entry direction	0%	Last completed Phase :	FID	Ship size (m3)	216,000.00
% Exemption in exit direction	0%			Reloading ability ?	No

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Swinoujscie	Yes	entry	150.48	LNG Terminals Poland	Hub Poland

The LNG terminal in Śwnoujście will be the first LNG terminal in the Baltic Sea region. It will come on stream in 2014 with annual re-gasification capacity of 5 bcm/y. In the following years, depending on the increase of demand for gas, it will be possible to increase the capacity up to 7.5 bcm/y, without the need to increase the area on which the terminal will be constructed. The terminal in Świnoujście will consist of two storage tanks, each with the capacity of 160 tcm. The LNG terminal in Świnoujście will offer its regasification capacities not only to gas consumers in Poland, but also in the Baltic Sea region (supplies to be directed via Gas Interconnection Poland-Lithuania and/or LNG ships) and in Central-Eastern Europe (supplies within the North-South Gas Interconnections).

EXPECTED BENEFITS

Security of supply, diversification of sources, diversification of routes, N-1 national (Poland and possibly Lithuania, Latvia, Estonia, Denmark, Slovakia and Hungary), N-1 regional (Baltic Sea region, Central-Eastern Europe), back-up for renewables; the LNG terminal in Swinoujscie will have an impact on:

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

creating well-interconnected gas infrastructure in the Baltic Sea and CEE regions;

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

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

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

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

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

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

LNG-F-058

Klaipeda LNG terminal

LNG Terminal







THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION		
Considered TPA Regime	Regulated	End of permitting phase	2013 Q2	Regasification facility		
Considered Tariff Regime	Regulated	FID	2012 Q1	Expected volume (bcm/y)	+2.00	
Applied for Exemption ?	No	Construction	2014 Q4	Storage capacity (m3)	+170,000.00	
Exemption granted ?	Not relevant	Commissioning	2014/4	Send-out (mcm/d)	+5.00	
% Exemption in entry direction	0%	Last completed Phase :	Supply contract	Ship size (m3)	170,000.00	
% Exemption in exit direction	0%			Reloading ability ?	Yes	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Klaipeda (LNG)	Yes	exit	55.00	LNG Terminals Lithuania	Hub Lithuania

EXPECTED BENEFITS

Security of supply, market integration, diversification of sources, diversification of routes, N-1 national (Lithuania), reduce Lithuania's dependence on the single external natural gas supplier; ensure diversification of natural gas supply sources;

create real gas market and ensuring natural gas supply in Lithuania.

COMMENTS ABOUT THE PROJECT FINANCING

Public financing

Private financing

Multilateral financing

FID projects Storage facilities

UGS-F-202 **PMG Husów** FID Storage Facility SPONSORS **GENERAL INFORMATION** FINANCING Promoter PGniG Operator Operator Systemu Magazynowania Sp. Z o.o. TEN-E Project ? Not part of TEN-E Interested by PCI ? Not defined yet IGAs None Web Link Undefined (100,00%) PGNiG S.A. (100%)

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION		
Considered TPA Regime	Regulated	End of permitting phase	2014 Q2	Storage facility	PMG Husów	
Considered Tariff Regime	Regulated	FID	2010 Q4	Working volume (mcm)	+150.00	
Applied for Exemption ?	No	Construction	2014 Q2	Injectability (mcm/d)	+0.94	
Exemption granted ?	No	Commissioning	2014/3	Deliverability (mcm/d)		
% Exemption in entry direction	0%	Last completed Phase :	FID			
% Exemption in exit direction	0%					

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	entry	10.34	Hub Poland	Storage Poland

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

EXPECTED BENEFITS		
COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing

UGS-F-220

PMG Wierzchowice

Storage Facility



GENERAL INFORMATION		FINANCING	
Promoter	PGniG		
Operator	Operator Systemu Magazynowania Sp. Z o.o.		
EN-E Project ?	Not part of TEN-E		
nterested by PCI ?	Not defined yet		
GAs	None		
Veb Link			
		Undefined (100.00%)	

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION		
Considered TPA Regime	Regulated	End of permitting phase	2014 Q2	Storage facility	PMG Wierzchowice	
Considered Tariff Regime	Regulated	FID	2007 Q1	Working volume (mcm)	+625.00	
Applied for Exemption ?	No	Construction	2013 Q4	Injectability (mcm/d)		
Exemption granted ?	No	Commissioning	2014/2	Deliverability (mcm/d)		
% Exemption in entry direction	0%	Last completed Phase :	FID			
% Exemption in exit direction	0%					

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	entry	39.60	Hub Poland	Storage Poland
	Yes	exit	52.80	Storage Poland	Hub Poland

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-F-201

PMG Brzeznica

FID

Storage Facility

SPONSORS

PRIG SA, (10%)



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION		
Considered TPA Regime	Regulated	End of permitting phase	2016 Q2	Storage facility	PMG Brzeznica	
Considered Tariff Regime	Regulated	FID	2010 Q1	Working volume (mcm)	+35.00	
Applied for Exemption ?	No	Construction	2015 Q4	Injectability (mcm/d)	+0.34	
Exemption granted ?	No	Commissioning	2016/2	Deliverability (mcm/d)	+0.51	
% Exemption in entry direction	0%	Last completed Phase :	FID			
% Exemption in exit direction	0%					

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	entry	3.74	Hub Poland	Storage Poland
	Yes	exit	5.61	Storage Poland	Hub Poland

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Multilateral financing

UGS-F-200

KPMG Mogilnio

FID

Storage Facility

SPONSORS

GENERAL INFORMATION	1	FINANCING
Promoter	PGniG	
Operator	Operator Systemu Magazynowania Sp. Z o.o.	
TEN-E Project ?	Not part of TEN-E	
Interested by PCI ?	Not defined vet	
IGAs	None	
Web Link		

THIRD-PARTY ACCESS REGIME				TECHNICAL INFORMATION	
		JUILDOLL			
Considered TPA Regime	Regulated	End of permitting phase	2020	Storage facility	KPMG Mogilno
Considered Tariff Regime	Regulated	FID	2007 Q4	Working volume (mcm)	+392.10
Applied for Exemption ?	No	Construction	2020	Injectability (mcm/d)	
Exemption granted ?	No	Commissioning	2020	Deliverability (mcm/d)	+10.80
	00/	Last second to d Dhave	510		
% Exemption in entry direction	0%	Last completed Phase:	FID		
% Exemption in exit direction	0%				

Undefined (100,00%)

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	exit	118.80	Storage Poland	Hub Poland

DESCRIPTION OF THE PROJECT						
Under das storade (KPMG) extension in order to increase working das capacity						
	9					
EXPECTED BENEFITS						
COMMENTS ABOUT THE PROJECT FINANCING	COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing				

UGS-F-199

KPMG Kosakowo

FID

Storage Facility

Considered Tariff Regime

Applied for Exemption ?

% Exemption in entry direction

% Exemption in exit direction

Exemption granted?

SPONSORS





THIRD-PARTY ACCESS REGIME
Considered TPA Regime Regulated

PGNIG S.A. (100%)

	SCHEDULE		TECHNICAL INFORMATION	
Regulated	End of permitting phase	2021	Storage facility	KPMG Kosakowo
Regulated	FID	2007 Q1	Working volume (mcm)	+250.00
No	Construction	2021	Injectability (mcm/d)	+2.40
No	Commissioning	2021	Deliverability (mcm/d)	+9.60
0%	Last completed Phase :	FID		
0%				

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	exit	105.60	Storage Poland	Hub Poland
	Yes	entry	26.40	Hub Poland	Storage Poland

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

COMMENTS ABOUT THE PROJECT FINANCING

Public financing

Private financing

Multilateral financing

non-FID projects Transmission



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Negotiated (e.g. Exemption)	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	+175.00
Applied for Exemption ?	No	Construction	2013	Total Compressor Power (MW)	
Exemption granted ?	Not relevant	Commissioning	2014/4	Expected Load Factor	+0.80
% Exemption in entry direction	0%	Last completed Phase :	FEED		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Statpipe - NO / Harald platform - DK	Yes	entry	100.00	Supplier Norway	Hub Denmark (Offshore)

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

TRA-N-238

Capacity enhancement Klaipeda-Kiemenai pipeline in Lithuania

Non-FID

Pipeline including CS

SPONSORS

Amber Grid (100%)

GENERAL INFORMATION	l	FINANCING
Promoter	AB Amber Grid	
Operator	AB Amber Grid	
TEN-E Project ?	Project of Common Interest	
Interested by PCI ?	Yes	
IGAs	None	
Web Link	www.ambergrid.lt	Private Fl (50,0



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

SCHEDULE		TEC
End of permitting phase	2014 Q3	# of
FID	2014 Q3	Tot
Construction	2014 Q3	Tot (M\
Commissioning	2015 Q4	Ехр
Last completed Phase :	Planned	

TECHNICAL INFORMATION	
# of Pipelines, nodes, CS	1
Total Pipeline Length (km)	+110.00
Total Compressor Power (MW)	
Expected Load Factor	

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Klaipeda (LNG)	Yes	entry	62.00	LNG Terminals Lithuania	Hub Lithuania

DESCRIPTION OF THE PROJECT
Nana
None
EXPECTED BENEFITS
Convitu of supply diversification of sources, diversification of routes, N.1 notional (Lithuania). N.1 regional (Deltis states), this project would provide constitute transport as from LNC terminal in (Leipade to other Deltis states for the
needs of national consumption as well as to the Inčukalns underground gas storage (Latvia) as well as would provide an opportunity for the market players of certain Baltic states to diversify gas supply routes and sources and possibly
enhance competition in the gas market.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
Expected the EU financial support (preliminary)	AB Amber Grid	

TRA-N-276

Upgrade of the entry points in Lwówek and Włocławek on the Yamal-Europe pipeline

Non-FID

Pipeline including CS



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	2
Considered Tariff Regime	Regulated	FID		Total Pipeline Length (km)	
Applied for Exemption ?	No	Construction		Total Compressor Power (MW)	
Exemption granted ?	Not relevant	Commissioning	2015	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Wloclawek	Yes	entry	183.00	Yamal (Poland)	Hub Poland
Lwowek	Yes	entry	36.60	Yamal (Poland)	Hub Poland

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

Security of supply, market integration (integration of market areas in the Baltic Sea region and Central-Eastern Europe with Western Europe (GASPOOL and NetConnect in Germany)), reverse flows, diversification of sources, diversification of routes, N-1 national (Poland and possibly Lithuania, Latvia, Estonia, Slovakia, Hungary), N-1 regional (the Baltic Sea region, Central-Eastern Europe), back-up for renewables, upgrade of the capacity of the entry points in Lwowek and Wloclawek on the Yamal-Europe pipeline will have an impact on:

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

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

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

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

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

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

TRA-N-084 Karksi GMS Non-FID **Pipeline including CS** SPONSORS FINANCING **GENERAL INFORMATION** Promoter AS EGVörguteenus Operator AS EG Vörguteenus TEN-E Project ? **Project of Common Interest** Interested by PCI ? Yes IGAs None www.egvorguteenus.ee Web Link ASEG Võrguteenus (100%)

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2016 Q1	# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID	2016 Q1	Total Pipeline Length (km)	
Applied for Exemption ?	No	Construction	2017 Q3	Total Compressor Power (MW)	+35.00
Exemption granted ?	No	Commissioning	2017 Q4	Expected Load Factor	+0.70
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Karksi	Yes	exit	94.00	Hub Estonia	Hub Latvia
	Yes	entry	94.00	Hub Latvia	Hub Estonia

DESCRIPTION OF THE PROJECT Uppgrade of interconnection pipeline by installation of compressor station and new metering equipment for bidirectional metering EXPECTED BENEFITS Security of supply, arket integration (Estonia, Finland, Latvia), reverse flows, diversification of sources, diversification of routes, N-1 national (Estonia, Latvia), N-1 regional (Estonia, Finland, Latvia), back-up for renewables, biogas. COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing

TRA-N-072/ TRA-N-Balticconnector (FI-EE) Non-FID 023 **Pipeline including CS** GENERAL INFORMATION FINANCING **SPONSORS** ASEG Vörguteenus (20%) Promoter Gasum Oy/ AS EG Võrguteenus Operator Gasum Oy/ AS EG Võrguteenus TEN-E Project ? **Project of Common Interest** Interested by PCI ? Yes IGAs None Public Financin (50,00%) Web Link www.gasum.com/ www.egvorguteenus.ee Year Funding Granted TEN-E Requests Date of Request

01.12.2005

Gasum Oy (80%)

2010

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2014 Q4	# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID	2015	Total Pipeline Length (km)	+80.00
Applied for Exemption ?	No	Construction	2015	Total Compressor Power (MW)	+20.00
Exemption granted ?	Not relevant	Commissioning	2018	Expected Load Factor	+0.75
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Inkoo (FI) / Undetermined (EE) - Balticconnector	Yes	entry	79.80	Hub Estonia	Hub Finland
	Yes	exit	79.80	Hub Finland	Hub Estonia

New bidirectional offshore pipeline (Inkoo-Paldiski, DN500, 80 bar) of 80 km, plus 50 km onshore pipeline in EE (Kiili-Paldiski pipeline, DN 700, 55 bar) and 20 km onshore pipeline in FI (Siuntio Inkoo pipeline, DN500, 80 bar) including metering and compressor stations at both ends with a daily capacity of 7,2 x 10 ^6 Nm³/d. Capacity can be increased to 11 mcm/day if network capacity in EE and FI is increased. The power of each compressor station is about 10 MW. Estimated share of offshore pipeline is expected to be 50 km as a part of Finnish transmission system and 30 km as a part of Estonian transmission system. Project is conditional to Gasum Oy to Finngulf LNG terminal in Inkoo, Finland.

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, combined, the Finngulf LNG Terminal and Balticconnector projects meet all PCI identification objectives as highlighted by the February 2011 European Council; completion of the internal energy market and linkage of isolated regions; increased solidarity between Member States in the energy field; alternative supply or transmission routes; diversification of energy sources; and increased use of renewables compared with traditional sources.

COMMENTS ABOUT THE PROJECT FINANCING					
Public financing	Private financing	Multilateral financing			
Balticconnector 50%	Balticconnector 50%				

TRA-N-212

Gas Interconnection Poland-Lithuania (GIPL)

Non-FID

Pipeline including CS



GENERAL INFORMATION	l I		FINANCING		
Promoter	GAZ-SYSTEM S.A./ AB Amber Grid				
Operator	GAZ-SYSTEM S.A				
TEN-E Project ?	Project of Con				
Interested by PCI ?	Ye				
IGAs	No				
Web Link	en.gaz-system.pl/nasze-inwe europejski-systemem/polska	estycje/integracja-z- -litwa// www.ambergrid.lt			



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	2
Considered Tariff Regime	Regulated	FID	2015	Total Pipeline Length (km)	+534.00
Applied for Exemption ?	No	Construction		Total Compressor Power (MW)	+6.00
Exemption granted ?	Not relevant	Commissioning	2018 Q4	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
----------------------	----------	-----------	------------------	---------------	---------------
Interconnector PL-LT	No	exit	63.70	Hub Poland	Hub Lithuania
	Yes	entry	29.00	Hub Lithuania	Hub Poland
	Yes	exit	68.00	Hub Poland	Hub Lithuania

DESCRIPTION OF THE PROJECT

COMMENTS ADOLIT THE DOOLECT FINANCING

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

EXPECTED BENEFITS

Security of supply, market integration (market areas in the Baltic States and Central-Eastern Europe), reverse flows, diversification of sources, diversification of routes, N-1 national (Lithuania and possibly Latvia, Estonia), N-1 regional (the Baltic Sea region), back-up for renewables, the very aim of GIPL is the integration of the isolated gas markets of the Baltic states into the EU gas grid, by introducing the alternative gas supply route to the Baltic States. This interconnection will diversify gas supply sources, increase security of supply and will serve for the enhancement of competition in the gas market of the Baltic States.

For the Baltic States, GIPL will provide the access to various sources of gas, including EU gas spot markets. In the long-term perspective, it may also be used to import shale-gas from Poland, if the production reaches into large scale level. For the Polish market players, GIPL will provide the opportunity of using Latvian Inčukalns UGS. Also through GIPL, gas could be supplied to currently non-gasified areas in Poland and Lithuania.

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

TRA-N-247

The North-South corridor in Western Poland

Non-FID

Pipeline including CS

SPONSORS

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

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



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

	TECHNICAL INFORMATION	
	# of Pipelines, nodes, CS	10
2015	Total Pipeline Length (km)	+739.00
	Total Compressor Power (MW)	+7.00
2018	Expected Load Factor	
Planned		

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

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

Security of supply, market integration (market areas in Central-Eastern Europe), reverse flows, diversification of sources, diversification of routes, N-1 national (Poland), N-1 regional (Central-Eastern Europe), back-up for renewables, implementation of the investment tasks within this project will have an impact on:

enhancing functionality of transmission system in Central and Southern Poland in order to facilitate better operational functioning of the upgraded PL-CZ interconnection, as well as to initiate gas flow on the planned PL-SK interconnection;

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

improving European gas grid interconnections;

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

COMMENTS ABOUT THE PROJECT FINANCING

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



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	1
Considered Tariff Regime	Regulated	FID	2017	Total Pipeline Length (km)	+107.60
Applied for Exemption ?	No	Construction		Total Compressor Power (MW)	+16.00
Exemption granted ?	Not relevant	Commissioning	2019	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector PL-LT	No	entry	105.40	Hub Czech Republic	Hub Poland
Interconnector CZ-PL	Yes	entry	195.90	Hub Czech Republic	Hub Poland
	Yes	exit	150.60	Hub Poland	Hub Czech Republic

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

Security of supply, market integration (market areas in Central-Eastern Europe), reverse flows, diversification of sources, diversification of routes, N-1 national (Poland, possibly Slovakia and Hungary), N-1 regional (Central-Eastern Europe), back-up for renewables, implementation of PL-CZ interconnection will have an impact on:

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

improving European gas grid interconnection;

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

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

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

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

COMMENTS ABOUT THE PROJECT FINANCING

Public financing

Private financing

Support from EU funds is expected

Multilateral financing

TRA-N-275

PL - SK interconnection

Pipeline including CS



GENERAL INFORMATION	l			
Promoter	GAZ-SYSTEM S.A.			
Operator	GAZ-SYS	TEM S.A.		
TEN-E Project ?	Project of Con	nmon Interest		
Interested by PCI ?	Ye	es		
IGAs	No	ne		
Web Link	en.gaz-system.pl/nasze-inwe europejski-systemem/polska	estycje/integracja-z- i-slowacja/		
TEN-E Requests	Date of Request 28.02.2011	Year Funding Granted 2012		



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

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	2
FID	2017	Total Pipeline Length (km)	+164.00
Construction		Total Compressor Power (MW)	+29.10
Commissioning	2019	Expected Load Factor	
Last completed Phase :	Planned		

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector PL - SK	Yes	entry	129.50	Hub Slovakia	Hub Poland
	Yes	exit	141.60	Hub Poland	Hub Slovakia
	Yes	entry	171.70	Hub Slovakia	Hub Poland

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

Security of supply, market integration (market areas in Central-Eastern Europe), reverse flows, diversification of sources, diversification of routes, N-1 national (Poland, Slovakia and possibly Hungary), N-1 regional (Central-Eastern Europe), back-up for renewables, implementation of PL-SK interconnection will have an impact on:

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

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

improve European gas grid interconnection;

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

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

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

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing
		-
TENE (obtained), support from EU funds is expected		

TRA-N-271

PL - DK interconnection (Baltic Pipe)

Pipeline including CS

SPONSORS



GENERAL INFORMATIO	N			
Promoter	GAZ-SY	STEM S.A.		
Operator	CA7 SV			
operator	UAL-31	GAZ-SYSTEM S.A.		
TEN-E Project ?	Project of Co	ommon Interest		
Interested by PCI ?		Yes		
IGAs	N	lone		
Web Link	en.gaz-system.pl/nasze-inw europejski-systemem/balty	vestycje/integracja-z- /ckibaltic-pipe/		
TEN E Poquests	Date of Pequest	Vear Funding Granted		
I LIVEL REQUESTS	24.04.2009	2010		
	30.06.2008	Yes None tem.pl/nasze-inwestycje/integracja-z- systemem/baltyckibaltic-pipe/ of Request Vear Funding Granted 04.2009 2010 0.66.2008 2009		

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

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	2
FID	2015	Total Pipeline Length (km)	+324.00
Construction		Total Compressor Power (MW)	
Commissioning	2020	Expected Load Factor	
Last completed Phase :	Planned		

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Interconnector PL-DK	Yes	exit	90.40	Hub Poland	Hub Denmark
	Yes	entry	90.40	Hub Denmark	Hub Poland

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-131 Enhancement of Latvia-Lithuania interconnection Non-FID **Pipeline including CS** SPONSORS **GENERAL INFORMATION** FINANCING Promoter AS Latvijas Gaze/ AB Amber Grid Operator AS Latvijas Gaze/ AB Amber Grid TEN-E Project ? Priority Project Interested by PCI ? Yes IGAs None Amber Gr aze (50%) www.lg.lv/ www.ambergrid.lt Web Link Undefined (100,00%)

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		# of Pipelines, nodes, CS	2
Considered Tariff Regime	Regulated	FID	2015	Total Pipeline Length (km)	+90.00
Applied for Exemption ?	No	Construction		Total Compressor Power (MW)	
Exemption granted ?	No	Commissioning	2021/4	Expected Load Factor	
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Kiemenai	Yes	exit	62.20	Hub Latvia	Hub Lithuania
	Yes	entry	62.20	Hub Lithuania	Hub Latvia

DESCRIPTION OF THE PROJECT

In order to further enhace LV-LT interconnection section a gas pipeline in Latvia will be built and gas metering station in Lithuania upgraded

EXPECTED BENEFITS

Security of supply, market integration, reverse flows, diversification of sources, diversification of routes, N-1 national (Lithuania); project will significantly increase interoperability of Latvian and Lithuanian gas systems, improve security of supply for Lithuania and will be part of important route connecting common European gas grid with gas systems of the East-Baltic countries.

COMMENTS ABOUT THE PROJECT FINANCING Public financing Public financing Multilateral financing

Union financial assistance

AS Latvijas Gaze, AB Amber Grid

TRA-N-274

Upgrade of PL-DE interconnection in Lasów

Non-FID

Pipeline including CS

SPONSORS



GENERAL INFORMATION	J	FINANCING
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/	



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		TECHNI
End of permitting phase		# of Pip
FID	2015	Total Pi
Construction		Total Co (MW)
Commissioning	2021	Expecte
oommissioning	2021	Expecte
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	

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

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

Security of supply, market integration (integration of market areas in Central-Eastern Europe and Western Europe (GASPOOL in Germany)), reverse flows, diversification of sources, diversification of routes, N-1 national (Poland), N-1 regional (Central-Eastern Europe), back-up for renewables, the upgraded PL-DE interconnection in Lasów will have an impact on:

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

creating well-interconnected gas network in the CEE region;

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

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

COMMENTS ABOUT THE PROJECT FINANCING

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

TRA-N-245

The North-South Gas Corridor in Eastern Poland

Non-FID

Pipeline including CS

SPONSORS

GENERAL INFORMATION		FINANCING
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		

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

SCHEDULE		TECHNICAL INFORMATION	
End of permitting phase		# of Pipelines, nodes, CS	7
FID	2015	Total Pipeline Length (km)	+409.00
Construction		Total Compressor Power (MW)	+18.30
Commissioning	2023	Expected Load Factor	
Last completed Phase :	Planned		

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

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

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

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

Construction of the pipelines within this project, together with completion of the PL-SK interconnection and GIPL, will definitely have a positive impact on the competition in the CEE and Baltic regions, as the project will provide a possibility to open the market for more gas suppliers. This would in turn mean ending the state of major dependency on one single gas supplier for the countries in the respective regions thanks to the potential access to gas deliveries from new sources.

COMMENTS ABOUT THE PROJECT FINANCING

Public financing

Private financing

Multilateral financing

non-FID projects LNG terminals

LNG-N-277

Pansio LNG

LNG Terminal

SPONSORS



GENERAL INFORMATION	l	FINANCING
Promoter	Gasum Oy	
Operator	Casum Ov	
operator	Gasum Oy	
TEN-E Project ?	Not part of TEN-E	
Interested by PCI ?	Not defined yet	
IGAs	None	
Web Link	www.gasum.com	



THIRD-PARTY ACCESS REGIME SCHEDULE **TECHNICAL INFORMATION** Considered TPA Regime Negotiated (e.g. Exemption) End of permitting phase **Regasification facility Considered Tariff Regime** Negotiated (e.g. Exemption) FID Expected volume (bcm/y) 2014 +0.11 Applied for Exemption ? Storage capacity (m3) Construction +30,000.00 No Exemption granted? Send-out (mcm/d) Commissioning 2015/4 Not relevant % Exemption in entry direction Last completed Phase : Ship size (m3) 15,000.00 0% Planned % Exemption in exit direction Reloading ability ? 0% No

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled Direction	Capacity (GWh/d)	From Zone	To Zone	
DESCRIPTION OF THE PROJECT					
Business orientation: Marine use and small facilities outside natural gas netw	ork (Terminal is not conr	nected to natural gas netw	vork).		
EXPECTED BENEFITS					
Security of supply, reverse flows, diversification of sources, diversification of	routes, N-1 regional, bac	k-up for renewables, biog	as.		
COMMENTS ABOUT THE PROJECT FINANCING		1			
	Delasta Caracian				
Public financing	Private financing			Multilateral financing	

LNG-N-032

Gothenburg LNG (preliminary)

LNG Terminal







THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2014 Q2	Regasification facility	GO4 LNG Gothenburg
Considered Tariff Regime	Regulated	FID		Expected volume (bcm/y)	+0.50
Applied for Exemption ?	No	Construction		Storage capacity (m3)	7.000+ 25.000
Exemption granted ?	Not relevant	Commissioning	2016 Q1	Send-out (mcm/d)	+2.00
% Exemption in entry direction	0%	Last completed Phase :		Ship size (m3)	15,600.00
% Exemption in exit direction	0%			Reloading ability ?	Yes

Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Yes	entry	24.00	LNG Terminals Sweden	Hub Sweden
	Modelled Yes	Modelled Direction Yes entry	ModelledDirectionCapacity (GWh/d)Yesentry24.00	Modelled Direction Capacity (GWh/d) From Zone Yes entry 24.00 LNG Terminals 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

LNG-N-079

Paldiski LNG Terminal

LNG Terminal SPONSORS

Balti Caas LLC (100%)

GENERAL INFORMATION	J	FINANCING
Promoter	Balti Gaas plc	
Operator	Balti Gaas plc	
TEN-E Project ?	Not part of TEN-E	
Interested by PCI ?	Yes	Mul
IGAs	None	(3:
Web Link	www.baltigaas.eu	



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2013 Q4	Regasification facility	Paldiski LNG Terminal
Considered Tariff Regime	Regulated	FID	2013 Q4	Expected volume (bcm/y)	+2.60
Applied for Exemption ?	No	Construction	2014 Q1	Storage capacity (m3)	+320,000.00
Exemption granted ?	Not Relevant	Commissioning	2016/2	Send-out (mcm/d)	+24.00
% Exemption in entry direction	0%	Last completed Phase :	Planned	Ship size (m3)	265,000.00
% Exemption in exit direction	0%			Reloading ability?	Yes

Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Yes	exit	275.00	LNG Terminals Estonia	Hub Estonia
	Modelled Yes	Modelled Direction	ModelledDirectionCapacity (GWh/d)Yesexit275.00	Modelled Direction Capacity (GWh/d) From Zone Yes exit 275.00 LNG Terminals Estonia

DESCRIPTION OF THE PROJECT

LNG regasification terminal for regional use on the Pakri peninsula on the Easern coast of the Baltic Sea

EXPECTED BENEFITS

Security of supply, market integration (Estonia, Latvia, Lithuania, Finland with Balticconnector), diversification of sources, diversification of routes, N-1 national (Estonia), N-1 regional (Baltics and Finland with Balticconnector), back-up for renewables; additionally the terminal is capable of servicing the potential Baltic bunkering demand as well as provide alternative fuel to road and rail transport in the affected countries.

COMMENTS ABOUT THE PROJECT FINANCING							
Public financing	Private financing	Multilateral financing					
CEF	Equity	Bank					

LNG-N-194

Tornio ManGa LNG Terminal project

LNG Terminal



GENERAL INFORMATION	I	FINANCING
Promoter	ManGa LNG Oy	
Operator	ManGa LNG Oy	
TEN-E Project ?	Not part of TEN-E	
Interested by PCI ?	Yes	
IGAs	None	
Web Link		



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Negotiated (e.g. Exemption)	End of permitting phase	2013 Q2	Regasification facility	
Considered Tariff Regime	Negotiated (e.g. Exemption)	FID	2014	Expected volume (bcm/y)	
Applied for Exemption ?	Not yet	Construction	2014	Storage capacity (m3)	+50,000.00
Exemption granted ?	Not relevant	Commissioning	2017	Send-out (mcm/d)	+0.00
% Exemption in entry direction	0%	Last completed Phase :	FEED	Ship size (m3)	20,000.00
% Exemption in exit direction	0%			Reloading ability ?	No

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Tornio ManGa LNG	Yes	exit	0.03		

DESCRIPTION OF THE PROJECT

The Manga Ltd LNG terminal will supply natural gas into market areas and industrial companies which currently do not have access to gas via pipeline networks i.e. Northern and Central parts of Finland and Sweden. The terminal is located in Tornio, at the border of Finland and Sweden. Several Finnish and Sweden are interested in the project among them Outokumpu, which plans to use LNG in its production processes both in Sweden and in Finland.

EXPECTED BENEFITS

Security of supply, market integration (Northern Scandinavia, Sweden, Finland and Norway), diversification of sources, diversification of routes, back-up for renewables, i. Increases the competitiveness of the Northern EU and its industry and securing Nordic raw materials for the manufacturing of industrial and consumer goods in NW and Continental Europe at economical prices (incl. metals, chemical and pulp & paper).

ii. Improves the security of supply within the Northern EU - no energy islands.

iii. Reduces environmental pollution and CO2/NOx -emissions (replaces LPG, oil, peat and coal).

iv. Supports EU transportation policies, TEN-T, and Motorways of the Sea programme and SECA regulations within the Baltic Sea.

v. Enhances the use of LNG in maritime transport in the region – provides ship vessel bunkering availability.

vi. Satisfies energy needs and demands both in Sweden and in Finland - 100% alignment with the Northern dimension of the EU.

COMMENTS ABOUT THE PROJECT FINANCING

Public financing

Private financing

Multilateral financing



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2015 Q2	Regasification facility	Tallinn LNG terminal
Considered Tariff Regime	Regulated	FID	2014 Q3	Expected volume (bcm/y)	+4.00
Applied for Exemption ?	No	Construction	2015 Q2	Storage capacity (m3)	+90,000.00
Exemption granted ?	Not relevant	Commissioning	2017/4	Send-out (mcm/d)	+11.00
% Exemption in entry direction	0%	Last completed Phase :	Permitting	Ship size (m3)	75,000.00
% Exemption in exit direction	0%			Reloading ability ?	Yes

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Tallinn LNG	Yes	exit	60.50	LNG Terminals Estonia	Hub Estonia
	Yes	exit	60.50	LNG Terminals Estonia	Hub Estonia

DESCRIPTION OF THE PROJECT

Conventional LNG import terminal for improving Baltic as well as Finnish security of supply and serving commercial customers.

EXPECTED BENEFITS

Security of supply, market integration, diversification of sources, diversification of routes, N-1 national (Estonia), N-1 regional (Baltic + Finland), back-up for renewables, power-to-gas, biogas; As Tallinn LNG terminal includes facilities for bunkering, it contributes for ECA regulation implementation.

COMMENTS ABOUT THE PROJECT FINANCING

Public financing

Private financing

Multilateral financing

LNG-N-024 Finngulf Non-FID LNG Terminal SPONSORS **GENERAL INFORMATION** FINANCING Promoter Gasum Oy Operator Gasum Oy TEN-E Project ? Project of Common Interest Interested by PCI ? Yes IGAs None Public Financii (50,00%) www.gasum.com Web Link

Gasum Oy (100%)

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Negotiated (e.g. Exemption)	End of permitting phase	2014 Q4	Regasification facility	Finngulf LNG
Considered Tariff Regime	Negotiated (e.g. Exemption)	FID	2015	Expected volume (bcm/y)	+2.00
Applied for Exemption ?	No	Construction	2015	Storage capacity (m3)	+300,000.00
Exemption granted ?	Not yet	Commissioning	2019	Send-out (mcm/d)	+19.20
% Exemption in entry direction	0%	Last completed Phase :	Market test	Ship size (m3)	150,000.00
% Exemption in exit direction	0%			Reloading ability ?	Yes

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Finngulf LNG	Yes	entry	133.00	LNG Terminals Finland	Hub Finland
Inkoo (FI) / Undetermined (EE) - Balticconnector	Yes	entry	79.80	Hub Estonia	Hub Finland

DESCRIPTION OF THE PROJECT

New LNG terminal in Inkoo with an annual send-out capacity of 8 x 10⁹ Nm3/y at full utilisation rate. Development in stages: first part includes conventional on-shore storage tank of 165,000 m³ storage capacity (working volume 150,000 m³), connection to Finnish and Estonian (via Balticconnector) transmission pipelines, process equipment for pipeline send-out, reloading facility for bunker use and truck loading. Second stage includes enlargement of storage capacity to total of 330,000 m³ (working volume 300,000 m³). Possibility of enlargement to 495,000 m³ LNG exists. The maximum ship size is about 150,000 m³. The pipeline connecting the LNG terminal to the Finnish gas transmission grid from Inkoo is of a length of about 20 km and with a daily capacity 19.2 x 10⁶ Nm³/d (includes 7.2 x 10⁶ Nm³/d to EE via Balticconnector). Connecting pipelines, metering and compressor stations are included as a part of Balticconnector project.

EXPECTED BENEFITS

Security of supply, market integration, diversification of sources, diversification of routes, N-1 national, N-1 regional, back-up for renewables, biogas, combined, the Finngulf LNG terminal and Balticconnector projects meet all PCI identification objectives as highlighted by the February 2011 European Council: completion of the internal energy market and linkage of isolated regions; increased solidarity between Member States in the energy field; alternative supply or transmission routes; diversification of energy sources; and increased use of renewables compared with traditional sources.

COMMENTS ABOUT THE PROJECT FINANCING						
Public financing	Private financing	Multilateral financing				
Finngulf LNG 50%	Finngulf LNG 50%					

LNG-N-272

Upgrade of the LNG terminal in Świnoujście

Non-FID

LNG Terminal

SPONSORS

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

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

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		Regasification facility	LNG terminal in Świnoujście
Considered Tariff Regime	Regulated	FID	2014	Expected volume (bcm/y)	+2.50
Applied for Exemption ?	No	Construction		Storage capacity (m3)	+160,000.00
Exemption granted ?	Not relevant	Commissioning	2020	Send-out (mcm/d)	+6.84
% Exemption in entry direction	0%	Last completed Phase :	Planned	Ship size (m3)	216,000.00
% Exemption in exit direction	0%			Reloading ability ?	Yes

Undefined (100,00%)

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Swinoujscie	Yes	entry	75.24	LNG Terminals Poland	Hub Poland

DESCRIPTION OF THE PROJECT

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

EXPECTED BENEFITS

Security of supply, diversification of sources, diversification of routes, N-1 national (Poland and possibly Lithuania, Latvia, Estonia, Denmark, Slovakia and Hungary), N-1 regional (Baltic Sea region, Central-Eastern Europe), back-up for renewables, the extension of the LNG terminal in Swinoujscie will have an impact on:

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

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

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

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

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

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

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

non-FID projects Storage facilities

UGS-N-034

Syderiai Underground Gas Storage

Storage Facility



GENERAL INFORMATIO	N		FINANCI				
Promoter	Lietuvos	Energija AB					
Operator	Liotuvos	Eporalia AP					
operator	Lietuvos	Energija Ab					
TEN-E Project ?	Project of Co	mmon Interest					
Interested by PCI ?		Yes					
IGAs	N	None					
Web Link	le.lt						
TEN-E Requests	Date of Request	Year Funding Granted					
	27.06.2008	2010					
	05.03.2013	2013					
	28.02.2011	2012					



THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase	2015 Q4	Storage facility	Syderiai underground gas storage
Considered Tariff Regime	Regulated	FID	2016 Q1	Working volume (mcm)	+500.00
Applied for Exemption ?	No	Construction	2016 Q4	Injectability (mcm/d)	+5.00
Exemption granted ?	Not relevant	Commissioning	2019/4	Deliverability (mcm/d)	+10.00
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
Syderiai	Yes	entry	55.00	Hub Lithuania	Storage Lithuania
	Yes	exit	110.00	Storage Lithuania	Hub Lithuania

DESCRIPTION OF THE PROJECT

Expected total capacity – 1 billion m³, storage will create conditions for gas reserve storage in Lithuania, increase the security of supply and contribute to the creation of national gas market.

EXPECTED BENEFITS

Security of supply, market integration, diversification of sources; the project would create conditions for natural gas reserve storage in Lithuania, increase the security of natural gas supply in the region and contribute to the creation of national gas market.

COMMENTS ABOUT THE PROJECT FINANCING

Public financing	Private financing	Multilateral financing

UGS-N-130 Modernisation of Inčukalns Underground Gas Storage Non-FID Storage Facility SPONSORS **GENERAL INFORMATION** FINANCING Promoter AS Latvijas Gaze Operator AS Latvijas Gaze TEN-E Project ? Priority Project Interested by PCI ? Yes IGAs None JSC Latvija (50% r parties gas (50%) Web Link www.lg.lv Year Funding Granted TEN-E Requests Date of Request 28.04.2010 Not yet Undefined (100,00%)

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		Storage facility	Inčukalns Underground Gas Storage
Considered Tariff Regime	Regulated	FID	2014 Q1	Working volume (mcm)	+2,300.00
Applied for Exemption ?	No	Construction	2014 Q1	Injectability (mcm/d)	+1.00
Exemption granted ?	Not relevant	Commissioning	2025/4	Deliverability (mcm/d)	+5.00
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

PROJECTED CAPACITY INCREASES					
Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - LV - Latvijas Gaze	Yes	exit	51.75	Hub Latvia	Storage Latvia

DESCRIPTION OF THE PROJECT

Modernization of existing and construction of new facilities with the aim to increase daily output from 30 to 35 mcm and to comply with the EN 1918:1

EXPECTED BENEFITS

Security of supply, market integration, diversification of sources, diversification of routes, N-1 regional (BEMIP), back-up for renewables; the implementation of thepProject will enhance cross-border interconnection capacity, along with strengthening economic cooperation in the region, building links between Poland and Lithuania, and strengthening the economic cohesion with the common EU grid.

COMMENTS ABOUT THE PROJECT FINANCING		
Public financing	Private financing	Multilateral financing
Union financial assistance	AS Latvijas Gaze	Other parties keeping gas in the storage

UGS-N-219

PMG Wierzchowice extension

Storage Facility

SPONSORS

FNIC S.A. (100%)

GENERAL INFORMATION		FINANCING
Promoter	PGniG	
Operator	Operator Systemu Magazynowania Sp. Z o.o.	
TEN-E Project ?	Not part of TEN-E	
,		
Interested by PCI ?	Not defined yet	
IGAs	None	
Web Link		

THIRD-PARTY ACCESS REGIME		SCHEDULE		TECHNICAL INFORMATION	
Considered TPA Regime	Regulated	End of permitting phase		Storage facility	PMG Wierzchowice
Considered Tariff Regime	Regulated	FID	2014	Working volume (mcm)	+800.00
Applied for Exemption ?	No	Construction		Injectability (mcm/d)	+8.40
Exemption granted ?	No	Commissioning	2023*	Deliverability (mcm/d)	+11.00
% Exemption in entry direction	0%	Last completed Phase :	Planned		
% Exemption in exit direction	0%				

Undefined (100,00%)
PROJECTED CAPACITY INCREASES

Interconnection	Modelled	Direction	Capacity (GWh/d)	From Zone	To Zone
UGS - PL - Gaz-System/Magazynowania	Yes	exit	121.00	Storage Poland	Hub Poland
	Yes	entry	92.40	Hub Poland	Storage Poland

DESCRIPTION OF THE PROJECT Underground gas storage (PMG) extension in order to increase working gas capacity. EXPECTED BENEFITS COMMENTS ABOUT THE PROJECT FINANCING Public financing Private financing Private financing All and All



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