Moffat Physical Reverse Flow

TRA-N-1064	Project	Pipeline including CS	Non-FID			
Update Date	30/05/2018		Non-Advanced			
Description	Physical Reverse Flow at the Moffat interconnection point, which is currently uni-directional, supporting forward flow only from UK to IE, the Isle of Man and Northern Ireland (onshore). The planned capacity is 38.5GWH/d					
PRJ Code - PRJ Name	PRJ-G-001 - Physical reverse Flow at Moffat interconnection point (IE/UK)					

Conscitut Ingramant	s Variant Fax Ma	dolling								
Capacity Increment Point	s variant For Mo	deiling		Operator	r		Year	From Gas System	To Gas System	Capacity
Moffat	//			National	Grid Gas plc		2020	Y-UKm	UK	176.2 GWh/d
Sponsors					General Information			NDP and	PCI Information	
GNI (UK) Limited	<i></i>	1	100%	Promoter		nal Grid Gas plc	Part		(5) others - please	comment below)
	4			Operator	Natio	nal Grid Gas plo	NDP	Number		
				Host Country	U	Jnited Kingdom	NDP	Release Date		
				Status		Planned	NDP	Website		
				Website			Curre	ently PCI		Yes (5.1.1)
							Priori	ty Corridor(s)		NSIW
Schedule	Start Date	End Date						Third-Par	ty Access Regime	
Pre-Feasibility							Consi	dered TPA Regime		Regulated
Feasibility	07/2017	11/2018					Consi	dered Tariff Regime		Regulatea
FEED	01/2019	12/2019					Applie	ed for Exemption		No
Permitting	01/2020	12/2020					Exem	ption Granted		No
Supply Contracts										
FID		12/2020					Exem	ption in entry directio	n	100.00%
Construction	01/2021	12/2021					Exem	ption in exit direction		0.00%
Commissioning	2020	2020								

Fulfil		Cuito	
	112101		

Specific Criteria Fulfilled Market Integration, Security of Supply

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

position in terms of the N-1 standard

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP

Delay Explanation

14/03/2017

Benefits

Main Driver Others

Specific Criteria Fulfilled Comments

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

standard

Benefit Description

CBCA

No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or

not

Submissin Date

Decision Date

Website

Decision

Countries Affected

Countries Net Cost Bearer

Additional Comments

Financia	l Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	No
Comments	
General Comments	

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

TRA-N-829	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Advanced
Description	Physical Reverse Flow at the Moffat interconnection point, which is currently uni-direction Man and Northern Ireland (onshore). The planned capacity is 176.2 GWH/d.	nal, supporting forward flow only fro	om UK to IE, the Isle of
PRJ Code - PRJ Name	PRJ-G-001 - Physical reverse Flow at Moffat interconnection point (IE/UK)		

Point			Operator		Year	From Gas System	To Gas System	Capacity
Moffat	/		Gas Networks Ire	land	2020	IE	Y-UKm	176.2 GWh/d
Sponsors			Genera	l Information		NDP and	PCI Information	
GNI (UK) Limited	1/	100%	6 Promoter	GNI (UK) Limited	Part (of NDP Ye.	s (GNI, Network De	velopment Plan
(1			Operator	Gas Networks Ireland		OI NOF		2016)
			Host Country	United Kingdom	NDP	Number		PCI 5.1.1
			Status	Planned	NDP	Release Date		15/12/2018
			Website	Project's URL	NDP	Website		NDP URL
				·	Curre	ently PCI		Yes (5.1.1)
					Priori	ty Corridor(s)		NSIW
Schedule	Start Date	End Date				Third-Par	ty Access Regime	
Pre-Feasibility					Consi	dered TPA Regime		Regulated
Feasibility	07/2017	11/2018			Consi	dered Tariff Regime		Regulated
FEED	01/2019	12/2019			Appli	ed for Exemption		No
Permitting	01/2020	12/2020			Exem	ption Granted		No
Supply Contracts								
		12/2020			Exem	ption in entry directio	n	0.00%
FID		,						
FID Construction	01/2021	12/2021			Exem	ption in exit direction		0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
interconnector 1 & 2		914	100	40	0
	Total		100	40	
	Fulfilled Criteria				

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

Market Integration: The intention of PRF is to enhance interoperability of the Irish and Northern Ireland (UK) gas markets with the Great Britain (UK) market, in line with the goal of the European Union in achieving an EU Single Market in Gas. Ireland and Northern Ireland (UK) are currently at the extremity of the EU gas network with no ability to export to Great Britain (UK) and beyond. The PRF projects would allow, for the first time, trade from Ireland/Northern Ireland (UK) to Great Britain (UK). This opportunity is likely to encourage new gas supply sources in Ireland and Northern Ireland which in turn would help increase trading opportunities between Ireland, Northern Ireland (UK) and Great Britain (UK), further enhancing market integration in these regions.

Time Schedule

Grant Obtention Date

14/03/2017

Delay Since Last TYNDP

Delay Explanation

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

CBCA				
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or			
	not			
Submissin Date				
Decision Date				
Website				
Countries Affected				
Countries Net Cost Bearer				
Additional Comments				

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

Bidirectional Austrian-Czech Interconnector (BACI)

TRA-N-21	Project	Pipeline including CS	Non-FID
Update Date	28/02/2018		Advanced
Description	The Bidirectional Austrian Czech Interconnection (BACI) will be a new infrastructure direction connected to the existing Czech transmission system via CS Břeclav (NET4GAS s.r.o.) and CONNECT AUSTRIA GmbH). The project BACI will enable capacity transmission for the facilitate better market integration between Austria and the Czech Republic. The project Austrian and also Polish system by diversification of gas supply routes and by connecting	d to the Austrian transmission system first time between these two EU Memb It BACI will also increase the overall fle	via Baumgarten (GAS per States and it will xibility of the Czech,
PRJ Code - PRJ Name	PRJ-G-002 - Bidirectional Austrian - Czech Interconnection (BACI)		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
	Gas Connect Austria GmbH	2021	AT	CZ	201.4 GWh/d	
Do štove 4 / Dointel	Comment: New bidirectional IP connecting the Austria and the Czech Market					
Poštorná / Reintal	Gas Connect Austria GmbH	2021	CZ	AT	201.4 GWh/d	
	Comment: New bidi	rectional IP conn	ecting the Austria and	d the Czech Market		

Sponsors		General Information		NDP and PCI Information	
Pipeline on Austrian territory		Promoter	GAS CONNECT AUSTRIA GmbH	Part of NDP	Yes (NDP 2018-2027)
GAS CONNECT AUSTRIA GmbH	100%	Operator	Gas Connect Austria GmbH	NDP Number	GCA 2015/01a
Pipeline on Czech territory		Host Country	Austria	NDP Release Date	19/01/2018
NET4GAS, s.r.o	100%	Status	Planned	NDP Website	NDP URL
112.107.67.5.1.0	10070	Website	<u>Project's URL</u>	Currently PCI	Yes (6.4)
				Priority Corridor(s)	NSIE

Current	TYNDF) : TYN	IDP 2018	3 FINAL -	 Annex A
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Schedule	Start Date	End Date
Pre-Feasibility	Start Bate	Ena Date
Feasibility		
FEED		
Permitting	10/2015	
Supply Contracts		
FID		
Construction		10/2021
Commissioning	2021	2021

	9
Third-Party Access Regime	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Austrian Side	Conversion from Nm ³ (0°) to kwh with GCV of 11.19 AT side is TRA-N-021 and CZ side is TRA-N-133	800	49		0
Czech Side	Conversion from Nm 3 (0°) to kwh with GCV of 11.19 AT side is TRA-N-021 and CZ side is TRA-N-133	800	12		0
	Total		61		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	The BACI project entailing a direct connection of the Austrian and the Czech gas market would enable short way access to CEGH Hub in Baumgarten thus facilitating better market integration and fostering competition. Positive effects on the gas prices are expected. The project supports indirectly the substitution of coal by gas also e.g. as a back-up energy source for renewables, which would have a positive impact on the environment by reducing the CO2 emissions. The project supports the diversification of gas supply sources and routes by connecting both transmission systems to LNG terminals in Poland (Świnoujście) and Croatia (Krk) and further gas sources reaching the EU via the Baltic. Calculated welfare gains for the Czech - Austrian market integration are 62 million EUR/year as it was calculated by the Austrian NRA E-Contol in a study published on its website in 2017. The payback period for the project would be approximately 3 years after its commissioning.

Time Schedule

Grant Obtention Date

30/04/2015

Delay Since Last TYNDP

Delay Explanation

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

access to existing and new import infrastructures such as a new LNG terminal in Poland and Croatia, Nord Stream and unconventional gas sources. With

	СВСА
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

BACI the region would become less vulnerable in case of supply disruption.

Financial Assistance					
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision				
Grants for studies	Yes				
Grants for studies amount					
Grants for works	No				
Grants for works amount	Mln EUR 0				
Intention to apply for CEF	No, we do not plan to apply				
Other Financial Assistance	Yes				
Comments	Feasibility Study 2013 GCA received 53.953,- thousand EUR on the basis of a European Commission decision according to TEN-E regulation.				
General Comments					

Bidirectional Austrian Czech Interconnection (BACI)

TRA-N-133	Project	Pipeline including CS	Non-FID
Update Date	23/03/2018		Advanced
Description	The transmission system operators of the Czech Republic (NET4GAS, s.r.o.) and A of a joint project Bidirectional Austrian Czech Interconnection (BACI). The project Czech Republic and Austria. The pipeline is planned to be connected at CS Břecla GmbH) to the existing transmission systems of both countries.	t BACI aims at establishing the first direct co	nnection between the
PRJ Code - PRJ Name	PRJ-G-002 - Bidirectional Austrian - Czech Interconnection (BACI)		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	NET4GAS, s.r.o.	2021	AT	CZ	201.4 GWh/d
D. Y			Comment: E	ntry from AT to CZ	•
Poštorná / Reintal	NET4GAS, s.r.o.	2021	CZ	AT	201.4 GWh/d
			Comment:	Exit from CZ to AT	

Sponsors		General Information		NDP and PCI Information	
Austria		Promoter	NET4GAS, s.r.o.	Part of NDP	Yes (CZ NDP 2016-2025 (approved))
GAS CONNECT AUSTRIA GmbH	100%	Operator	NET4GAS, s.r.o.	NDP Number	TRA-N-133
Czech Republic		Host Country	Czechia	NDP Release Date	31/10/2015
NET4GAS, s.r.o.	100%	Status	Planned	NDP Website	<u>NDP URL</u>
	.0070	Website	<u>Project's URL</u>	Currently PCI	Yes (6.4)
				Priority Corridor(s)	NSIE

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		05/2009
Feasibility	03/2012	02/2014
FEED	03/2012	06/2018
Permitting	05/2015	11/2019
Supply Contracts		08/2019
FID		08/2019
Construction	12/2019	09/2021
Commissioning	2021	2021

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

Pipelines and Compressor Stations		
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissioning (mm) (km) (MW) Year
Břeclav (CZ) - Poštorná/Reintal (CZ/AT)	CZ side	800 12 2021
	Total	12

Fulfilled Criteria

Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability

The first direct gas transmission systems interconnection of the Czech Republic and Austria would provide following benefits: - Market integration and Competition: The BACI project through direct connection of the AT and CZ gas market would enable access on a short way to CEGH Hub in Baumgarten and thus facilitating better market integration and fostering competition and positive effects on the gas prices are expected (identified by Austrian NRA E-Control as 62 mio EUR/year). - Sustainability: The project supports indirectly the substitution of coal by gas also e.g. as a back-up energy source for renewables, which would have a positive impact on the environment by reducing the CO2 emissions. - SoS: The project supports the diversification of gas supply sources and routes by connecting both transmission systems to LNG terminals in PL (Świnoujście) and HR (Krk) and further gas sources reaching the EU via the Baltic, Adriatic and Black Seas through the creation of a North-South Corridor.

Specific Criteria Fulfilled Comments

Grant Obtention Date 01/01/2014 Delay Since Last TYNDP 0 Delay Explanation Particular dates have been changed due to the fact that there is a change in permitting process caused by amendment of the Building Act valid as of January 1, 2018.

Benefits				
Main Driver	Others			
Main Driver Explanation	on Competition, Market Integration			
Benefit Description	The BACI will ensure the first direct transmission capacity between the 2 member states (AT, CZ) and will facilitate better market integration and competition. It contributes to the diversification of gas supply and the increased transportation opportunities to and from countries like HU, PL, DE, IT, FR, SI, HR and SK and access to new and existing trading markets. The BACI will enhance the market development due to access to UGSs both on the Austrian and Czech side and therefore will enhance the market development by providing peak regulation and the flexibility of gas flow. The BACI is a key element in creating a well-functioning internal market in the CEE region due to access to existing and new import infrastructures such as a new LNG terminal in Poland and Croatia, Nord Stream and unconventional gas sources. With the BACI the CEE region would become less vulnerable to a supply disruption through Ukraine and Belarus and therefore the region will have an increase of SoS.			
	Barriers			
Barrier Type	Description			

Barrier Type	Description
Permit Granting	Permitting obstacles
Regulatory	Lack of proper transposition of EU regulation
Regulatory	Low rate of return

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance			
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision		
Grants for studies	Yes		
Grants for studies amount	Mln EUR 0		
Grants for works	No		
Grants for works amount			
Intention to apply for CEF	No decision yet taken		
Other Financial Assistance	Yes		
Comments	TEN-E, 92 942 EUR		
General Comments			

Interconnection Croatia/Slovenia (Lučko - Zabok - Rogatec)

TRA-N-86	Project	Pipeline including CS	Non-FID
Update Date	22/02/2018		Advanced
Description	New pipeline which will upgrade the existing interconnection Croatia/Slovenia. Alon Rogatec, a new gas pipeline system has been planned which would significantly inc Slovenian gas transmission systems in this direction. Considering almost all existing Croatian storage potentials this opens significant transit potentials in both direction to 5 bcm/y.	crease the capacity of the interconnection of and new supply directions in the surroun	of the Croatian and the ding region and the
PRJ Code - PRJ Name	PRJ-G-003 - Interconnection Slovenia-Croatia (Gas pipeline Lučko-Zabok-Rogatec)		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Rogatec	Plinacro Ltd	2021	HR	SI	162.0 GWh/d	
	Plinacro Ltd	2021	SI	HR	162.0 GWh/d	

Sponsors			General Information	NDP and PCI Information	
Plinacro	100%	Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
		Operator	Plinacro Ltd	NDP Number	1.9, 1.10, 1.11
		Host Country	Croatia	NDP Release Date	15/12/2017
		Status	Planned	NDP Website	NDP URL
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.26.1.1)
				Priority Corridor(s)	NSIE

	Current	TYNDP:	: TYNDP 2018	3 FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	09/2014	12/2014
FEED		
Permitting	10/2015	12/2021
Supply Contracts		
FID		11/2019
Construction	12/2019	12/2021
Commissioning	2021	2021

Enabled Projects

Project Code Project Name

TRA-N-1057 Compressor stations 2 and 3 at the Croatian gas tranmission system

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Lučko-Zabok		700	33		0
Zabok-Rogatec		700	36		0
	Total		69		

Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability			
	The project increases the integration of the Croatian gas market with the European gas market, the current interconnection capacity is limited to 1.5 bcm/y. The pipeline will have the reverse flow, so gas can flow from LNG Krk or IAP to Slovenia and further to Central Europe expected to			
Specific Criteria Fulfilled Commen	s result in reduced end-user energy prices providing the security of supply increasing the capacity along the route providing enhanced access to Baumgarten and the Italian gas market providing an additional import of gas achievement of benefits of the open gas market This project is expected to contribute to the provision of gas supply to potential customers in the Central Europe countries			

Time Schedule

Grant Obtention Date

25/04/2016

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

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

	Benefits
Main Driver	Market Demand
	The current capacity is limited; the section from Lučko to Rogatec up to 1.5 bcm/y.Increasing capacity by 5 bcm opens the possibility for importing more gas from the Baumgarten. In addition, the source of the gas, in the near future) is going to be the gas from the LNG solution on the island of Krk as well as from the Ionian – Adriatic Pipeline toward Slovenia and the neighbouring countries. In this case the current pipeline capacity would not be sufficient; therefore it is envisaged to be increased. By doubling the pipeline, it is possible to use both the existing and future Croatian UGSs. The construction of this interconnection is vital for the security of supply of both the Croatian market and other markets in the SE region.
Benefit Description	It will be significantly increase the capacity of the interconnection of the Croatian and Slovenian gas transmission systems in both directions. It will increase the capacity along the route, provide enhanced access to Baumgarten and Italien gas market. The most important impacts and benefits of this project: 1. It provides security of supply for Croatia (N-1 criterion has not been met!) and a reverse flow (from Croatia to Slovenia) 2. It provides access to the gas

Benefit Description

markets of Austria and Italy via the Slovenian system 3. It provides import and significant transit of gas from the direction of Italy and Austria to CEE and SEE countries (Hungary, Bosnia and Herzegovina, Serbia...) 4. It provides significant transit of gas from LNG terminal, Ionian-Adriatic Pipeline or other sources towards Slovenia, Austria and Italy as well as the countries in their surrounding 5. It facilitates market integration

	Barriers					
Barrier Type	Description					
Financing	Availability of funds and associated conditions					

Intergovernmental Agreements						
Agreement	Agreement Description	Is Signed Ag	reement Signature Date			
Memorandum of Understanding	Signed among Plinacro, Plinovodi and Gas Connect Austria	Yes	28/12/2014			
Letter of Intent	Signed between Plinacro and Plinovodi	Yes	22/05/2014			

СВСА				
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not			
Submissin Date	Hot			
Decision Date				
Website				
Countries Affected				
Countries Net Cost Bearer				
Additional Comments				

Financial Assistance					
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision				
Grants for studies	Yes				
Grants for studies amount	Mln EUR 5				
Grants for works	No				
Grants for works amount					
Intention to apply for CEF	No decision yet taken				
Other Financial Assistance	No				
Comments					
General Comments					

Upgrade of Rogatec interconnection (M1A/1 Interconnection Rogatec)

TRA-N-390	Project Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Advanced
Description	Adjustment to operating parameters of the transmission system of the Croatian TSO, incorporation. The project is a part of the PCI 6.26 Cluster Croatia - Slovenia - Austria at Rog	. ,	d enabling bidirectional
PRJ Code - PRJ Name	PRJ-G-003 - Interconnection Slovenia-Croatia (Gas pipeline Lučko-Zabok-Rogatec)		

Point			Operator		Year	From Gas System	To Gas System	Capacity
Pogatos			Plinovodi d.o.o.		2022	HR	SI	162.0 GWh/d
Rogatec			Plinovodi d.o.o.		2022	SI	HR	162.0 GWh/d
Sponsors			General Infor	rmation		NDP and	PCI Information	
Plinovodi		100%	Promoter	Plinovodi d.o.o.	Part c	of NDP Yes	(TYNDP for the pe	eriod 2018-2027)
			Operator	Plinovodi d.o.o.	NDP	Number		C12
			Host Country	Slovenia	NDP	Release Date		09/10/2017
			Status	Planned	NDP '	Website		<u>NDP URL</u>
			Website	<u>Project's URL</u>	Curre	ntly PCI		Yes (6.26.6)
					Priori	ty Corridor(s)		NSIE
Schedule	Start Date	End Date				Third-Par	ty Access Regime	
Pre-Feasibility					Consi	dered TPA Regime		Regulated
Feasibility					Consi	dered Tariff Regime		Regulatea
FEED	07/2019	07/2021			Applie	ed for Exemption		No
Permitting					Exemp	otion Granted		No
Supply Contracts								
FID		07/2019			Exemp	ption in entry directio	n	0.00%
Construction	07/2021	12/2022			Exemp	ption in exit direction		0.00%
Commissioning	2022	2022						

Current TYNDP : TYNDP 2018 FINAL - Annex A Page 18 of 641

Enabled Projects

Project Code Project Name

TRA-N-94 CS Kidričevo, 2nd phase of upgrade

TRA-N-389 Upgrade of Murfeld/Ceršak interconnection (M1/3 Interconnection Ceršak)

Pipelines and Compressor Stations			
Pipeline Section	Pipeline Comment	Diameter Length (mm) (km)	Compressor Power Comissioning (MW) Year
Upgrade of Rogatec interconnection	The length is 3.8 km.	800 4	0
	Total	4	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply

The project will provide security of supply for Croatia and Slovenia and a reverse flow (from Croatia to Slovenia). It will provide access to/from

Specific Criteria Fulfilled Comments the gas markets of Austria and Italy via the Slovenian system. It will provide import and significant access to Krk LNG and IAP pipeline:

contributing to the security of supply and benefits of the open gas market.

Expected Gas Sourcing

Norway, Russia, LNG (HR)

	Benefits Benefits
Main Driver	Market Demand
Main Driver Explanatio	n Also essential contribution to Security of supply.
Benefit Description	

CBCA			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not		
Submissin Date	not		
Decision Date			
Website			
Countries Affected			
Countries Net Cost Bearer			
Additional Comments			

Financial Assistance			
Applied for CEF	(3) No, we have not applied for CEF		
Grants for studies	No		
Grants for studies amount			
Grants for works	No		
Grants for works amount			
Intention to apply for CEF	No decision yet taken		
Other Financial Assistance	No		
Comments			
General Comments			

LNG Evacuation Pipeline Kozarac-Slobodnica

TRA-N-1058	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Advanced
Description	Gas pipeline Kozarac - Slobodnica jointly with gas pipeline sytem Zlobin - Bosiljevo Main Evacuation Pipeline connecting LNG from the LNG solution on the island of K is a continuation of the existing Hungary – Croatia interconnection (gas pipeline Vawill be connected to the future Ionian Adriatic Pipeline (IAP) will be connected to the future LNG solution in Omišalj It will be the "backbone" of the Croatian gas system.	rk with Central Eastern European counties	s. The pipeline system
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines towards H	ungary and beyond	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Croatia LNG	Plinacro Ltd	2023	LNG_Tk_HR	HR	54.3 GWh/d
Development	Plinacro Ltd	2023	HR	HU	54.3 GWh/d
Dravaszerdahely	Plinacro Ltd	2023	HU	HR	135.9 GWh/d

Sponsors		General Information	NDP a	nd PCI Information
Plinacro 100%	Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
	Operator	Plinacro Ltd	NDP Number	1.32
	Host Country	Croatia	NDP Release Date	15/12/2017
	Status	Planned	NDP Website	NDP URL
	Website	<u>Project's URL</u>	Currently PCI	Yes (6.5.6)
			Priority Corridor(s)	NSIE

Current	TYNDP	: TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	09/2015	10/2016
FEED		
Permitting	09/2014	01/2023
Supply Contracts		
FID		01/2020
Construction	01/2021	01/2023
Commissioning	2023	2023

Specific Criteria Fulfilled Comments

	3			
Third-Party Access Regime				
Considered TPA Regime	Regulated			
Considered Tariff Regime	Regulated			
Applied for Exemption	No			
Exemption Granted	No			
Exemption in entry direction	0.00%			
Exemption in exit direction	0.00%			

Enabled Projects

Project Code	Project Name
TRA-N-1057	Compressor stations 2 and 3 at the Croatian gas tranmission system
TRA-N-75	LNG evacuation pipeline Zlobin-Bosiljevo-Sisak-Kozarac
TRA-N-90	LNG evacuation pipeline Omišalj - Zlobin (Croatia)

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Kozarac-Slobodnica		800	128		0
	Total		128		

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Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Project will connect several, in the future exceptionally important, points of the Croatian gas transmission system. It is the future strategic gas transmission connector of great significance and is an integral part of the North – South European Corridor named as the North-South (Baltic – Adriatic) Gas Connection. Its purpose is linking the Polish and the Croatian LNG (Liquefied Natural Gas) solutions. This gas pipeline (as well as all the pipelines to which it connects and the associated gas nodes) will provide gas transmission in all directions, i.e. it will satisfy all transmission requirements and will maximise the value of the IAP and LNG projects in Croatia and the region. In addition, it will increase the use of the existing system and the new interconnection with Hungary.

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Time Schedule

Grant Obtention Date 24/11/2015

Delay Since Last TYNDP

Delay Explanation Project depend on LNG project

Expected Gas Sourcing

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

	Benefits					
Main Driver	Market Demand					
Main Driver Explanation	This gas pipeline passes only through the territory of the Republic of Croatia. However, it has regional significance since it is the main evacuation gas pipeline from the LNG solution on the island of Krk towards Hungary and it is its main role. This gas pipeline increases utilisation of the interconnection with Hungary so it has influence on Hungary but also further on Slovakia and Ukraine. The gas pipeline shall be also significant for third countries; Serbia, Bosnia and Herzegovina by constructing interconnection with these countries.					
Benefit Description	The project is the main gas pipeline for transport of LNG from the terminal on the island of Krk as well as from other possible sources, such as gas from the Ionian-Adriatic Pipeline, towards CEE and SEE countries. At the same time, in addition to already constructed interconnection gas pipeline with Hungary, Slobodnica-Donji Miholjac-Dravaszerdahely, it presents the Croatian part of the strategic transregional gas pipeline connection Adriatic-Baltic the aim of which is to connect the Polish and Croatian LNG terminal. The most important impacts and benefits of this project: 1. It provides viable and secure supply of CEE and SEE countries, which are heavily dependent on the Russian gas and jeopardized by the Russian giving up on the South Stream project and the announcement regarding termination of gas transmission via Ukraine after 2019 2. It provides diversification of supply (also in case the					

previously mentioned threats fail to occur) and thereby competitiveness and lower price

CBCA			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or		
	noi		
Submissin Date			
Decision Date			
Website			
Countries Affected			
Countries Net Cost Bearer			
Additional Comments			

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

LNG evacuation pipeline Omišalj - Zlobin (Croatia)

TRA-N-90	Project	Pipeline including CS	Non-FID
Update Date	22/05/2018		Advanced
Description	The pipeline is the connection of the LNG on the Krk island with the Croatian gas trapipeline system Zlobin - Bosiljevo - Sisak-Kozarac and with gas pipeline Kozarac-Sloftrom the LNG solution on the island of Krk with Central Eastern European counties. Interconnection (gas pipeline Varosföld-Dravaszerdahely-Donji Miholjac-Slobodnica will be connected to the future Ionian Adriatic Pipeline (IAP) will be connected to the future LNG solution in Omišalj It will be the "backbone" of the Croatian gas system.	obodnica makes LNG Main Evacuation Pipe The pipeline is a continuation of the existi	eline connecting LNG
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines towards Hu	ingary and beyond	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Croatia LNG	Plinacro Ltd	2019	LNG_Tk_HR	HR	81.5 GWh/d
D	Plinacro Ltd	2019	HR	HU	40.8 GWh/d
Dravaszerdahely			Comment: It is ned	cessary to use CS 1	

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

Current	TYNDP:	: TYNDP 2	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting	07/2009	12/2019
Supply Contracts		
FID		06/2018
Construction	07/2018	12/2019
Commissioning	2019	2019

Enabled Projects

Project Code Project Name

TRA-N-75 LNG evacuation pipeline Zlobin-Bosiljevo-Sisak-Kozarac

TRA-N-1058 LNG Evacuation Pipeline Kozarac-Slobodnica

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Omišalj-Zlobin		1,000	18		0
	Total		18		

	10.01	
	Fulfilled Criteria	
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability	
Specific Criteria Fulfilled Comments	transmission connector of great significance and is an integral part Adriatic) Gas Connection. Its purpose is linking the Polish and the C all the pipelines to which it connects and the associated gas nodes)	nd LNG projects in Croatia and the region. In addition, it will increase the

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP

Delay Explanation This proje

This project completely depends on LNG terminal project on island of Krk

Expected Gas Sourcing

LNG (?), it will be gas from Croatia transport system, Croatian UGS and all import routes (LNG and IAP)

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

CBCA				Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision		Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	14/10/2016	(Grants for studies	No
Decision Date	10/04/2017	(Grants for studies amount	
Website	<u>CBCA URL</u>	(Grants for works	Yes
Countries Affected	Croatia, Hungary, Ukraine	(Grants for works amount	Mln EUR 16
Countries Net Cost Bearer			Intention to apply for CEF	
Additional Comments		(Other Financial Assistance	No
		(Comments	
		(General Comments	

LNG evacuation pipeline Zlobin-Bosiljevo-Sisak-Kozarac

TRA-N-75	Project	Pipeline including CS	Non-FID
Update Date	22/05/2018		Advanced
Description	Gas pipeline Zlobin - Bosiljevo - Sisak – Kozarac jointly with gas pipeline Omišalj-Zl Evacuation Pipeline connecting LNG from the LNG solution on the island of Krk wi is a continuation of the existing Hungary – Croatia interconnection (gas pipeline Vawill be connected to the future Ionian Adriatic Pipeline (IAP) will be connected to the future LNG solution in Omišalj It will be the "backbone" of the Croatian gas system.	th Central Eastern European counties. The	pipeline
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines towards H	lungary and beyond	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Croatia LNG	Plinacro Ltd	2020	LNG_Tk_HR	HR	27.2 GWh/d
Dravaszerdahely	Plinacro Ltd	2020	HR	HU	54.3 GWh/d

Sponsors			General Information	NDP and	PCI Information
Plinacro	100%	Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
		Operator	Plinacro Ltd	NDP Number	1.19, 1.20, 1.21
		Host Country	Croatia	NDP Release Date	15/12/2017
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.5.6)
				Priority Corridor(s)	NSIE

Current	TYNDP:	TYNDP	2018	FINAL	- Annex A

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	09/2015	10/2016
FEED		
Permitting	07/2009	01/2020
Supply Contracts		
FID		07/2018
Construction	10/2018	01/2020
Commissioning	2020	2020

-	-9
Third-Party Access Regime	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	No
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code	Project Name
TRA-N-90	LNG evacuation pipeline Omišalj - Zlobin (Croatia)
TRA-N-1058	LNG Evacuation Pipeline Kozarac-Slobodnica

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Bosiljevo - Sisak		800	102		0
Kozarac - Sisak		800	20		0
Zlobin - Bosiljevo		800	58		0
	Total		180		

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

Project will connect several, in the future exceptionally important, points of the Croatian gas transmission system. It is the future strategic gas transmission connector of great significance and is an integral part of the North – South European Corridor named as the North-South (Baltic – Adriatic) Gas Connection. Its purpose is linking the Polish and the Croatian LNG (Liquefied Natural Gas) solutions. This gas pipeline (as well as all the pipelines to which it connects and the associated gas nodes) will provide gas transmission in all directions, i.e. it will satisfy all transmission requirements and will maximise the value of the IAP and LNG projects in Croatia and the region. In addition, it will increase the use of the existing system and the new interconnection with Hungary.

Time Schedule

Grant Obtention Date

24/11/2015

Delay Since Last TYNDP

Delay Explanation

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

Expected Gas Sourcing

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

Comments about the Third-Party Access Regime

TPA regime is not defined yet, Exemption Regime possibly

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

Barrier Type

Description

Others

Directly connected and depening on the LNG project on the island of Krk

Financing

Availability of funds and associated conditions

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	14/10/2016	Grants for studies	Yes
Decision Date	10/04/2017	Grants for studies amount	Mln EUR 2
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Croatia, Hungary, Ukraine	Grants for works amount	
Countries Net Cost Bearer		Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

LNG terminal Krk

LNG-N-82	Project	LNG Terminal	Non-FID		
Update Date	22/05/2018		Advanced		
The import terminal for the liquefied natural gas (LNG) will be situated in Omišalj on the Island of Krk, Republic of Croatia. The project be developed in two phases - in first phase as FSRU and in second phase as onshore LNG terminal. First phase is planned to be developed as FSRU solution, with correspondent capacity of up to 2.6 bcm/y in the first development stransmission system of Republic of Croatia, up to 3.5 bcm/y after upgrade of transmission system and 7 bcm/y in final stage.					
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines towards Hungar	y and beyond			
LNG-N-82	Project	LNG Terminal	Non-FID		
Update Date	22/05/2018		Advanced		
Description	The import terminal for the liquefied natural gas (LNG) will be situated in Omišalj on the be developed in two phases - in first phase as FSRU and in second phase as onshore LNG First phase is planned to be developed as FSRU solution, with correspondent capacity of transmission system of Republic of Croatia, up to 3.5 bcm/y after upgrade of transmission	G terminal. up to 2.6 bcm/y in the first develop	ment stage of		
PRJ Code - PRJ Name	PRJ-G-004 - Krk LNG terminal with connecting and evacuation pipelines towards Hungar	y and beyond			

Point	Operator	Year	From Gas System	To Gas System	Capacity
	LNG Hrvatska d.o.o.	2019	LNG_Tk_HR	HR	82.0 GWh/d
			Comment: 2.6 bcm/y		
Curatia ING	LNG Hrvatska d.o.o.	2020	LNG_Tk_HR	HR	110.0 GWh/d
Croatia LNG			Co	omment: 3.5 bcm/y	
	LNG Hrvatska d.o.o.	2023	LNG_Tk_HR	HR	220.0 GWh/d
				Comment: 7 bcm/y	

and PCI Information	NDP and PCI Information				Sponsors
Yes (DESETOGODISNJI PLAN RAZVO) PLINSKOG TRANSPORTNOG SUSTAV	Part of NDP	'NG Hrvatska d.o.o. za poslovanje ukapljenim prirodnim plinom	Promoter	50%	Plinacro d.o.o.
REPUBLIKE HRVATSKE 2018 202		LNG Hrvatska d.o.o.	Operator	50%	HEP d.d.
LNG terminal on the island of k	NDP Number	Croatia	Host Country		
01/11/20	NDP Release Date	Planned	Status		
NDP U	NDP Website	Project's URL	Website		
Yes (6.5	Currently PCI	LNG Hrvatska d.o.o. za poslovanje			
NS	Priority Corridor(s)	ukapljenim prirodnim plinom	Promoter		
Yes (DESETOGODISNJI PLAN RAZVO		LNG Hrvatska d.o.o.	Operator		
PLINSKOG TRANSPORTNOG SUSTAV	Part of NDP	Croatia	Host Country		
REPUBLIKE HRVATSKE 2018 202	NDD Number	Planned	Status		
LNG terminal on the island of k	NDP Number	<u>Project's URL</u>	Website		
01/11/20	NDP Release Date				
<u>NDP U</u>	NDP Website				
Yes (6.5	Currently PCI				
NS	Priority Corridor(s)				

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		01/2013
Feasibility	07/2012	01/2014
FEED	03/2017	12/2017
Permitting	10/2013	05/2018
Supply Contracts		
FID		06/2018
Construction	06/2018	11/2019
Commissioning	2019	2023
Pre-Feasibility		01/2013
Feasibility	07/2012	01/2014
FEED	03/2017	12/2017
Permitting	10/2013	05/2018
Supply Contracts		
FID		06/2018
Construction	06/2018	11/2019
Commissioning	2019	2023

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

Technical Information (LNG)									
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
The import terminal for the liquefied natural gas(LNG) on the Island of Krk	Yes	1st phase	2.6	160,000	7.12	160,000	FSRU not determined yet	2019	100
The import terminal for the liquefied natural gas(LNG) on the Island of Krk	Yes	1st phase	3.5	0	2.47	0	After upgrade of transmission system network	2020	100
The import terminal for the liquefied natural gas(LNG) on the Island of Krk	Yes	1st phase	7.0	0	9.59	0	After upgrade of transmission system network	2023	100

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Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

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

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

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

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Grant Obtention Date 18/12/2017
Delay Since Last TYNDP None

Delay Explanation In comparison with last TYNDP, the project is rescheduled with new beginning of operation from year 2019.

Grant Obtention Date 18/12/2017

Delay Since Last TYNDP None

Delay Explanation In comparison with last TYNDP, the project is rescheduled with new beginning of operation from year 2019.

Expected Gas Sourcing

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

	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	Importance of LNG terminal in Croatia is in possibility of providing natural gas to multiple countries in the region. Countries included: Hungary, Slovenia, Austria, Italy, Germany, Czech Republic, Slovak Republic, former Yugoslav Republic of Macedonia, Albania, Kosovo, Serbia, Montenegro, Bosnia and Herzegovina, Ukraine, Romania, and Bulgaria. Gas supply in the region is heavily dependent on one supply source and therefore LNG terminal in Croatia represents a major diversification gas supply route in the region.
Benefit Description	Project benefits include: providing diversity of supply of natural gas, providing security of supply of natural gas, introducing the ecologically sound energy source in the region, reducing CO ₂ emissions in the region, facilitating economic development, etc.
Main Driver	Regulation SoS
Main Driver Explanation	Importance of LNG terminal in Croatia is in possibility of providing natural gas to multiple countries in the region. Countries included: Hungary, Slovenia, Austria, Italy, Germany, Czech Republic, Slovak Republic, former Yugoslav Republic of Macedonia, Albania, Kosovo, Serbia, Montenegro, Bosnia and Herzegovina, Ukraine, Romania, and Bulgaria. Gas supply in the region is heavily dependent on one supply source and therefore LNG terminal in Croatia represents a major diversification gas supply route in the region.
Benefit Description	Project benefits include: providing diversity of supply of natural gas, providing security of supply of natural gas, introducing the ecologically sound energy source in the region, reducing CO ₂ emissions in the region, facilitating economic development, etc.

Barriers						
Barrier Type	Description					
Regulatory						
Permit Granting	Permit granting process for onshore solution for the project has started in 10/2013 by requesting the EIA which was approved in 04/2014 and Location permit was approved in 09/2015. For the FSRU solution of the project permits will be modified / obtained accordingly.					
Political	Onshore solution and FSRU solution of the LNG terminal project on the Island of Krk were declared of strategic importance for the Republic of Croatia. The Act on strategic investments enables this kind of projects to have the highest priority with faster and simplified procedure in obtaining necessary documents and permits for the project implementation.					
Market	Market Background Analysis was carried out and it indicated that the market has commercial potential. Open Season procedure will serve as an official confirmation of that analysis. The binding phase of Open Season is currently being carried out.					
Financing	Availability of funds and associated conditions					

Intergovernmental Agreements						
Agreement	Agreement Description	Is Signed Agreem	ent Signature Date			
CESEC MoU	Memorandum of Understanding	Yes	10/07/2015			

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	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	09/07/2016	Grants for studies	Yes
Decision Date	12/10/2016	Grants for studies amount	Mln EUR 6
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Croatia, Hungary	Grants for works amount	Mln EUR 101
Countries Net Cost Bearer	Croatia	Intention to apply for CEF	No decision yet taken
Additional Comments		Other Financial Assistance	Yes
Decision	Yes, we have submitted an investment request and have received a decision	Comments	At European level, funding programme IPF TA (Western Balkans Investment Framework) financed – Conceptual
Submissin Date	09/07/2016		Solution, Feasibility Study, EIA/SIA and Conceptual Design in amount of 1 mil €
Decision Date	12/10/2016	General Comments	th amount of 1 mil &
Website	<u>CBCA URL</u>	General Comments	(1) Very use house predict for CFF and we have received a
Countries Affected	Croatia, Hungary	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Countries Net Cost Bearer	Croatia	Grants for studies	Yes
Additional Comments		Grants for studies amount	Mln EUR 6
		Grants for works	Yes
		Grants for works amount	Mln EUR 101
		Intention to apply for CEF	No decision yet taken
		Other Financial Assistance	Yes
		Comments	At European level, funding programme IPF TA (Western Balkans Investment Framework) financed – Conceptual Solution, Feasibility Study, EIA/SIA and Conceptual Design in amount of 1 mil €
			un amount of 1 mil €

General Comments

Poland - Slovakia Gas Interconnection (PL section)

TRA-F-275	Project	Pipeline including CS	FID
Update Date	22/05/2018		Advanced
Description	The main goal of the project is to create an important part of the North-South gas missing interconnection between the transmission systems in Poland and Slovakia Europe through the diversification of supply sources and routes, as well as integrated functionality. The project consists of Poland-Slovakia Interconnector and relevant in functionality of the Interconnection.	and, thus, increase the security of gas sup tion of Sub-Carpathian Market Area and en	plies in Central-Eastern nhancing market
PRJ Code - PRJ Name	PRJ-G-008 - Poland – Slovakia Gas Interconnection		

Capacity Increments Variant For Modelling							
Point		Opera	ator	Year	From Gas System	To Gas System	Capacity
Interconnector PL - SK		GAZ-SYSTEM S.A.		2021	PL	SK	143.9 GWh/d
		GAZ-SYSTEM S.A.		2021	SK	PL	174.5 GWh/d
Sponsors			General Information		NDP and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A. 100%		Promoter	GA7-SY	STFM S A	S A Yes (National Ten-Year Transmiss		par Transmission

Sponsors		General Information		NDP and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission	
		Operator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)	
		Host Country		NDP Number	N/A	
		Status	Planned	NDP Release Date		
		Website	Project's URL	NDP Website	<u>NDP URL</u>	
			,	Currently PCI	Yes (6.2.1)	
				Priority Corridor(s)	NSIE	

Current	TYNDP:	: TYNDP 2018	B FINAL -	Annex A

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	04/2015	08/2018
Permitting	08/2016	08/2018
Supply Contracts		
FID		
Construction		
Commissioning	2021	2021

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Strachocina	up to 30 MW			30	0
PL-SK Interconnection - Polish section		1,000	58		0
Pogórka Wola - Tworzeń pipeline		1,000	160		0
Strachocina - Pogórska Wola pipeline		1,000	98		0
Tworóg - Tworzeń pipeline		1,000	56		0
	Total		372	30	

Fulfilled Criteria						
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability					
Specific Criteria Fulfilled Comments	Market integration: - Creation of a well-integrated and functioning market in the CEE region. SoS: - Mitigation of exposure to supply disruptions in CEE countries; - Reduction of dependence on gas supplies from Russia in the CEE region. Competition: - Reduction of price differences between the CEE and North-West regions; - Enhanced access to new sources of supply in the CEE region (LNG, NO supplies). d) Sustainability - Reduction of emissions in the CEE region by promoting natural gas in national economies.					

system and Slovak transmission system.

urrent TYNDP : TYNDF	^o 2018 FINAL - Annex A		Page 45 of 641
	Benefits		
Main Driver	Others		
Main Driver Explanation	Increase of SoS in the CEE region. Integration of gas infrastructure in the CEE region by constructing a cross that is currently missing.	-border Interconne	ection between PL and SK
Benefit Description	Implementation of PL-SK Interconnection will have an impact on: creating the cross-border capacity between transportation corridor that will allow for flexible transport of gas in Central Europe within the North-South diversification of supply routes for the CEE region; improving European gas grid interconnection; increasing gas transmission between Slovakia and Poland (contribution to N-1 standard in Poland and Slovakia); creating Slovakia and Poland and promote the competition.	axis; increasing the the security and re	security of gas supply and liability of the cross-border
	Barriers		
Barrier Type	Description		
Permit Granting	Efficient permitting procedures are necessary for timely implementation of the Project.		
	Intergovernmental Agreements		
Agreement	Agreement Description	Is Signed	Agreement Signature Date
Agreement between the Republic of Poland and the Slovak Republic for complementation of the population connecting the	the Government of cooperation on the roject of a gas	Yes	11/06/2014

Current TYNDP: TYNDP 20	18 FINAL - Annex A		Page 46 of 641
	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	31/10/2013	Grants for studies	Yes
Decision Date	28/11/2014	Grants for studies amount	
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected		Grants for works amount	
Countries Net Cost Bearer		Intention to apply for CEF	
Additional Comments		Other Financial Assistance	Yes
		Comments	Structural Funds (Operational Programme Infrastructure and Environment 2014-2020): - Pogórska Wola - Tworzeń; - Strachocina - Pogórska Wola; - Tworóg - Tworzeń.
		General Comments	

Poland - Slovakia interconnection

TRA-F-190	Project	Pipeline including CS	FID
Update Date	22/05/2018		Advanced
Description	Construction of a missing interconnection between Slovak and Polish transmission gas market via diversification of gas routes and sources. Security of supply will be region.		9
PRJ Code - PRJ Name	PRJ-G-008 - Poland – Slovakia Gas Interconnection		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Interconnector PL - SK	eustream, a.s.	2021	PL	SK	144.0 GWh/d	
	Comment: Commissioning has been postponed to 09/2021 based on time schedule update					
	eustream, a.s.	2021	SK	PL	174.6 GWh/d	
	Comment: Commissionina h	as heen nostnoned to	09/2021 hased on tin	ne schedule undate		

Sponsors		General Information		NDP and PCI Information	
eustream, a.s.	100%	Promoter	eustream,a.s. (a joint-stock company)	Part of NDP	Yes (National Development Plan 2018- 2027)
		Operator	eustream, a.s.	NDP Number	4.1.1.3PL-SK
		Host Country	Slovakia	NDP Release Date	30/11/2017
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.2.1)
			Priority Corridor(s)		NSIE

Current	: TYNDP	: TYNDF	²⁰¹⁸ F	INAL -	Annex A	
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Schedule	Start Date	End Date
Pre-Feasibility		05/2013
Feasibility	05/2011	07/2013
FEED	10/2015	04/2018
Permitting	08/2015	09/2018
Supply Contracts		10/2019
FID		03/2018
Construction	05/2018	11/2020
Commissioning	2021	2021

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

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

Fulfilled Criteria

6 .c. 6 E lcil l	
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria i allilica	competition, warker integration, security or suppry, sustainability

Specific Criteria Fulfilled Comments

Construction of new interconnection between markets enables new trade exchange between these two countries or even other countries in the region. This will force the markets into price convergence process – its effectiveness is dependent on the interconnector's capacity relative to national consumptions and various trade barriers. Creating new transport routes and access to new gas sources lowers these prices and thus benefits all consumers on the market by lower prices. Most of the European countries are able to cover only a small or minimal fraction of their gas consumption by indigenous production. There is a large historical dependence on Russian supplies of gas which concentrates the risks mostly around one supply source. Considering gas as an energy source it is vitally important to diversify supply sources in order to prevent security risks. Robust infrastructure helps to mitigate these risks. Gas as a clean fossil fuel, with low emissions represents sustainable energy source.

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18/12/2017 **Grant Obtention Date**

Delay Since Last TYNDP

Delay Explanation

Yes

1)Unexpected decision of the relevant building authority to merge the localisation proceedings prior to obtainment of the Localisation permit for the pipeline and the compressor station and subsequent obligation to update Zoning Plans of Košice and Prešov Self-governing Regions.

2)Delay in finalization of the cross-border environmental impact assessment by the Slovak and the Polish nature protection

authorities.3) Necessity to prolong public procurement proceeding due to the request of tenderers for extension of time period for submission of the initial tender bids. 4)Prolongation of the tendering process caused postponement of submission of documentation by the winning bidder all caused delay of detailed engineering. 5)Request of DG ENVIRO to deliver updated appropriate environmental impact assessment

according to the chosen final routing of the pipeline.

Expected Gas Sourcing

Caspian Region, Norway, LNG (QA,US), Turkish hub, Adriatic and Black sea sources, Southern Corridor,

Benefits					
Main Driver	Others				
Main Driver Explanation	1,Incease of SoS in the CEE region and potentially also to the Baltic region after constructing gas infrastructure between Poland and Baltic states Integration of gas infrastructure in the CEE region by constructing a cross-border interconnection between PL and SK that is currently missing. 2, Price convergence based on new gas supply sources and routes 3. decrease of market concentration on producers side 4, Decrease of carbon emissions				
Benefit Description					

	Barriers				
Barrier Type	Description				
Permit Granting	- Long term and difficult permitting process with regional counties - project unfriendly approach by local citizens relating to acceptance of the Project with significant impact on land acquisition in spite of many public consultations and public meetings				
Regulatory	Low rate of return				
Financing	Availability of funds and associated conditions				
Market	Lack of market support				

Interd	jovernmental	Ac	reements

Agreement Agreement Description Is Signed Agreement Signature Date

Agreement between the Government of the Slovak Republic and the Government of the Republic of Poland for cooperation on the implementation of the project of a gas pipeline connecting the Slovak transmission system and Polish transmission system

Intergovernmental agreement Yes 22/11/2013

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	31/10/2013	Grants for studies	Yes
Decision Date	28/11/2014	Grants for studies amount	Mln EUR 3
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Czechia, Hungary, Poland, Slovakia, Ukraine	Grants for works amount	Mln EUR 55
Countries Net Cost Bearer		Intention to apply for CEF	No, we do not plan to apply
	It is expected that CAPEX and OPEX will be modified	Other Financial Assistance	Yes
Additional Comments	because of a decision (12/2017) not to contruct new compressor units at Veľké Kapušany but to technologically modify the existing compressor station at Veľké Kapušany. This will have a positive impact on CAPEX. However it will mean a slight increase of OPEX at eustream's side. At this moment the project documents are being updated. It means that updated CAPEX and OPEX are not known.	Comments General Comments	TEN – E: EU Commission Decision C (2012)8546 granting financial aid for the project "Study: Pre – feasibility study for the Gas Interconnector Poland – Slovakia (Identification of the business case and preparation of prefeasibility study)" (action duration: 01.03.2011 – 31.05.2013).

Capacity Increments Variant For Modelling

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

TRA-N-342	Project Project	Pipeline including CS	Non-FID
Update Date	21/11/2018		Non-Advanced
Description	The project aims at enhancing the capacity of the gas systems interconnection Lat achieving a more effective use of the infrastructure and better integration of the g creation of the regional gas market. After the implementation of the project, the b increased up to 124.8 GWh (12 MCM) per day. The project is conditional upon oth States.	as markets of the Baltic States. It is benefic vi-directional capacity between Latvia and L	cial and important for the Lithuania will be
PRJ Code - PRJ Name	PRJ-G-010 - Latvia - Lithuania interconnection		

Point		Operat	or	Year	From Gas System	To Gas System	Capacity
le:		AB Am	ber Grid	2020	LV	LT	60.0 GWh/d
Kiemenai		AB Am	ber Grid	2020	LT	LV	57.4 GWh/d
Sponsors			General Information		NDP and	PCI Information	
AB Amber Grid	100%	Promoter	AB Amber Grid	Part of	Yes	(Network Develop	ment Plan 2017-
		Operator	AB Amber Grid				2026)
		Host Country	Lithuanio	, NDP Nu	ımber		n/a
		Status	Planned	NDP Re	lease Date		18/01/2018
		Website	Project's URI	NDP W	ebsite		NDP URL
				Current	ly PCI		Yes (8.2.1)
				Priority	Corridor(s)		BEMIP

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	10/2017	09/2018
FEED	09/2018	04/2019
Permitting	05/2019	01/2020
Supply Contracts		
FID		01/2020
Construction	01/2020	12/2020
Commissioning	2020	2020

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

Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability			
Specific Criteria Fulfilled Comments	The project will remove the exsisting bottleneck of supply limitations and create the adequate infrastructure to fully use the benefits of other infrastructure as well as contribute to the implementation of internal energy market to the Baltic States and Finland. It will ensure safe and reliable supply of gas. The project will contribute to the sustainability and increase of diversification of sources in the region.			

Evpoctod	l Gas Sourcing	
EXPECTED	i das sourcing	

Norway, LNG (NO)

	Benefits				
Main Driver	Market Demand				
Main Driver Explanatio	Main Driver Explanation Increased gas flows between Latvia and Lithuania.				
Benefit Description	The enhancement of bi-directional capacity of up to up to 124.8 GWh (12 MCM) per day between Latvia and Lithuania will increase the opportunities for a cross-border trade, higher usage of Latvia's UGS and ensure safe and reliable natural gas supply, flexibility of the transmission systems both in Lithuania and Latvia and better integration of the gas markets of the Baltic States.				

	CBCA	
Decision	No, we have not submitted an investment request yet, but we do plan to submit it	Ар
Submissin Date		Gra
Decision Date		Gra
Website		Gra
Countries Affected		Gra
Countries Net Cost Bearer		Int
Additional Comments		Ot
		Со

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

Enhancement of Latvia-Lithuania interconnection (Latvian part)

TRA-N-382	Project	Pipeline including CS	Non-FID
Update Date	21/11/2018		Non-Advanced
Description	The project is aimed at the increase of interconnection capacity between Latvia and Lithuani of a new pipeline Riga-lecava and lecava-Lithuanian border, however other solutions are po pressure in the existing pipeline. On Lithuanian side it is planned to increase the capacity of shall answer, which capacity increase is requested by the market and what scope of the projects (GIPL) and gas market development in the Baltic countries.	sible, including, choise of differe Kiemenai metering station . The	nt route or increase of ongoing feasibilty study

PRJ Code - PRJ Name

PRJ-G-010 - Latvia - Lithuania interconnection

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Conexus Baltic Grid	2023	LV	LT	60.0 GWh/d
Kiemenai	Conexus Baltic Grid	2023	LT	LV	57.4 GWh/d
	6			20	

Comment: In case of lower market demand diameter of 500 mm can be used

Sponsors	Gener	General Information		OP and PCI Information
	Promoter	JSC "Conexus Baltic Grid"	Part of NDP	No ((5) others - please comment below)
	Operator	Conexus Baltic Grid	NDP Number	
	Host Country	Latvia	NDP Release Date	
	Status	Planned	NDP Website	
	Website	<u>Project's URL</u>	Currently PCI	Yes (8.2.1)
			Priority Corridor(s)	BEMIP

Current	TYNDP:	TYNDP	2018	FINAL -	- Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	10/2017	09/2018
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2023	2023

	3
Third-Party Access Regi	me
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	No
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code Projec

Project Name

UGS-N-374 Enhancement of Incukalns UGS

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Riga-lecava-Lithuanian border	In case of lower market demand diameter of 500 mm can be used	700	93	11	0
Total			93	11	

Fulfilled Criteria					
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply				
Specific Chiena Fullilled Comments	Interconnection between Latvia and Lithuania is a bottleneck. By implementing this project regional market integration, security of supply and competition will be improved.				

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Grant Obtention Date

30/03/2018

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Russia, LNG ()

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

Barriers

Comments

General Comments

Barrier Type Description

Availability of funds and associated conditions Financing

Market Lack of market support

	CBCA	Financial Assistance		
Decision	No, we have not submitted an investment request yet, but we do plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	01/12/2018	Grants for studies	Yes	
Decision Date		Grants for studies amount	Mln EUR 0	
Website		Grants for works	No	
Countries Affected		Grants for works amount		
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies and works	
Additional Comments		Other Financial Assistance	No	

Balticconnector

TRA-F-895	Project	Pipeline including CS	FID
Update Date	28/02/2018		Advanced
Description	New bidirectional offshore pipeline (Inkoo-Paldiski, DN500, 80 bar) of 80 km, plus) and 20 km onshore pipeline in FI (Siuntio-Inkoo pipeline, DN500, 80 bar) includir nominal capacity of 7.2 mcm/day. The power of each compressor station is about	ng metering and compressor stations at bo	
PRJ Code - PRJ Name	PRJ-G-011 - Interconnection Estonia – Finland		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Politicompostor / Poldicki (FF)	Elering AS	2019	EE	FI/BAC	80.0 GWh/d
Balticonnector / Paldiski (EE)	Elering AS	2019	FI/BAC	EE	80.0 GWh/d

Sponsors		General Information		NDP and PCI Information	
EE Kiili pressure reduction station		Promoter	Elering AS	Part of NDP	Yes (EESTI GAASIÜLEKANDEVÕRGU
Elering AS	100%	Operator	Elering AS	Tare of NDI	ARENGUKAVA 2018-2027)
EE Kiili-Paldiski pipeline		Host Country	Estonia	NDP Number	paragraph 3.3
Elering AS	100%	Status	In Progress	NDP Release Date	03/03/2018
Lieffing A3	10076	Website	Project's URL	NDP Website	<u>NDP URL</u>
EE Paldiski metering and Compressor station			-	Currently PCI	Yes (8.1.1)
Elering AS	100%			Priority Corridor(s)	BEMIP
FI Inkoo metering and compressor station					
Baltic Connector OY	100%				
FI Inkoo-Siuntio pipeline					
Baltic Connector OY	100%				
FI-EE Inkoo-Paldiski Offshore pipeline					
Elering AS	50%				
Baltic Connector OY	50%				

Schedule	Start Date	End Date
Pre-Feasibility		12/2005
Feasibility	01/2006	12/2006
FEED	01/2016	02/2016
Permitting	12/2012	01/2019
Supply Contracts		05/2018
FID		10/2016
Construction	11/2017	12/2019
Commissioning	2019	2019

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

Enabled Projects

Project Code	Project Name
LNG-N-1119	Paldiski LNG
TRA-F-915	Enhancement of Estonia-Latvia interconnection
TRA-N-1121	TallinnLNG

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
EE Onshore	Kiili-Paldiski onshore pipeline, Paldiski compressor station	700	55	10	0
FI Onshore	Inkoo-Siuntio pipeline, Inkoo compressor station	500	20	10	0
Offshore	Inkoo-Paldiski offshore pipeline	500	80		0
	Total		155	20	

Fulfilled Criteria

Competition, Market Integration, Security of Supply, Sustainability Specific Criteria Fulfilled

The purpose of the Balticconnector natural gas pipeline project is to interconnect the Finnish and Estonian natural gas transmission networks and improve the energy security of the Baltic-Finnish region. The integration of the Finnish and Estonian gas infrastructures will ensure a more coherent and diverse natural gas transmission network in the Baltic Sea region, guarantee the security of natural gas supply for the north-Specific Criteria Fulfilled Comments eastern Member States of the EU by lifting Finland out of the current energy isolation and enhance EU energy solidarity by providing needed technical implementations for energy independence. The projects also target increased regional cooperation and have a strong focus on consumers and vulnerable energy customers. The aim is to move to Finnish-Baltic single entry-exit zone, which has been identified as the best fit solution in the "Baltic regional gas market study" and is expected to increase competition in the gas market.

Time Schedule

Grant Obtention Date

21/10/2016

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Russia, LNG (?)

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

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	06/04/2016	Grants for studies	Yes
Decision Date	22/04/2016	Grants for studies amount	Mln EUR 0
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Finland, Latvia	Grants for works amount	Mln EUR 0
Countries Net Cost Bearer	Estonia	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

Balticconnector Finnish part

TRA-F-928	Project	Pipeline including CS	FID
Update Date	31/03/2018		Advanced
Description	New bidirectional offshore pipeline (Inkoo-Paldiski, DN500, 80 bar) of 80 km, p 55 bar) and 20 km onshore pipeline in Finland (Siuntio-Inkoo pipeline, DN500, a daily nominal capacity of 7.2 mcm/day. The power of each compressor static	, 80 bar) including metering and compressor st	
PRI Code - PRI Name	PRI-G-011 - Interconnection Estonia – Finland		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Balticconnector / Siuntio (FI)	Baltic Connector Oy	2019	FI	FI/BAC	80.0 GWh/d
	Baltic Connector Oy	2019	FI/BAC	FI	80.0 GWh/d
Balticonnector / Paldiski (EE)	Baltic Connector Oy	2019	EE	FI/BAC	80.0 GWh/d
	Baltic Connector Oy	2019	FI/BAC	EE	80.0 GWh/d

Sponsors			General Information		OP and PCI Information
EE Kiili pressure reduction station		Promoter	Baltic Connector Oy	Part of NDP	No ((5) others - please comment below)
Elering AS	100%	Operator	Baltic Connector Oy	NDP Number	
EE Kiili-Paldiski pipeline		Host Country	Finland	NDP Release Date	
Elering AS	100%	Status	In Progress	NDP Website	
		Website	<u>Project's URL</u>	Currently PCI	Yes (8.1.1)
EE Paldiski metering and Compressor station Elering AS	100%			Priority Corridor(s)	BEMIP
FI Inkoo metering and compressor station					
Baltic Connector OY	100%				
FI Inkoo-Siuntio pipeline					
Baltic Connector OY	100%				
FI-EE Inkoo-Paldiski Offshore pipeline					
Elering AS	50%				
FI-EE Inkoo-Paldiski Offshore pipeline					
Baltic Connector OY	50%				

Schedule	Start Date	End Date
Pre-Feasibility		12/2005
Feasibility	01/2006	12/2006
FEED	01/2016	05/2017
Permitting	12/2012	05/2018
Supply Contracts		10/2017
FID		10/2016
Construction	11/2017	12/2019
Commissioning	2019	2019

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
EE Onshore	Kiili-Paldiski onshore pipeline, Paldiski compressor station	700	50	10	0
FI Onshore	Inkoo-Siuntio pipeline, Inkoo compressor station	500	20	10	0
Offshore	Inkoo-Paldiski offshore pipeline	500	80		0
То	tal		150	20	

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply, Sustainability

The purpose of the Balticconnector natural gas pipeline project is to interconnect the Finnish and Estonian natural gas transmission networks and improve the energy security of the Baltic-Finnish region. The integration of the Finnish and Estonian gas infrastructures will ensure a more coherent and diverse natural gas transmission network in the Baltic Sea region, guarantee the security of natural gas supply for the north-eastern Member States of the EU by lifting Finland out of the current energy isolation and enhance EU energy solidarity by providing needed technical implementations for energy independence. The projects also target increased regional cooperation and have a strong focus on consumers and vulnerable energy customers. The aim is to move to Finnish-Baltic single entry-exit zone, which has been identified as the best fit solution in the "Baltic regional gas market study" and is expected to increase competition in the gas market.

Time Schedule

Grant Obtention Date

21/10/2016

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Russia, LNG (?)

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

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	06/04/2016	Grants for studies	Yes
Decision Date	22/04/2016	Grants for studies amount	Mln EUR 0
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Finland, Latvia	Grants for works amount	Mln EUR 0
Countries Net Cost Bearer	Estonia	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

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

TRA-N-66	Project	Pipeline including CS	Non-FID			
Update Date	26/02/2018		Advanced			
Description	The pipeline covers the countries Croatia and Bosnia and Herzegovina and it will be the part of Energy Community Ring. The pipeline goes from Slavonski Brod (Slobodnica) in Croatia, it will cross the Sava river to Bosanski Brod in Bosnia and Herzegovina with furter extension to Zenica.					
PRJ Code - PRJ Name	PRJ-G-013 - North Interconnection of BiH and Croatia					

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Slobodnica- Bosanski Brod-Zenica	Plinacro Ltd	2020	BA	HR	162.0 GWh/d
Slobodnica- Bosanski Brod-Zenica	Plinacro Ltd	2020	HR	ВА	162.0 GWh/d

Sponsors		General Information		NDP and PCI Information	
B&H, Bosanski Brod - Zenica		Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
BH Gas	100%	Operator	Plinacro Ltd	NDP Number	1.15
Croatia, Slobodnica-Bosanski Brod (border)		Host Country	Croatia	NDP Release Date	15/12/2017
Plinacro	100%	Status	Planned	NDP Website	NDP URL
· inidelo	10070	Website	<u>Project's URL</u>	Currently PCI	No
				Priority Corridor(s)	

Schedule	Start Date	End Date
re-Feasibility	ly.	
easibility		
ED		
ermitting	01/2011	01/2019
upply Contracts		
ID		11/2018
Construction	12/2019	12/2020
Commissioning	2020	2020

Pipelines and Compressor Stations		
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissioning (mm) (km) (MW) Year
Slobodnica - Bosanski Brod		700 6 0
	Total	6

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP

The start of the construction has been postponed until 2020.

Delay Explanation

Expected Gas Sourcing

LNG (HR), It will be gas from Croatia transport system, Croatian UGS and Croatian planned LNG terminaland Baumgarten via Slovenia

	Benefits
Main Driver	Market Demand
Main Driver Explanation	This project is of great interest for the development of the natural gas sector in B&H, as its implementation would provide new route of supply B&H with gas, with a possibility of diversification of supply sources and increase in security of supply of the existing transportation system of B&H, and especially in the circumstances of the natural gas supply of the refineries Brod and Modrica and planned power plant (PP) Zenica and CCGT Kakanj, as well as the expansion of the market and increase in the competitiveness of natural gas. The construction of this gas pipeline would enable the B&H gas transmission system to connect with the Croatian gas transmission system through the pipeline from Slavonski Brod to Donji Miholjac, and then with the Hungarian pipeline. It will connect BH market to the new LNG in Croatia and Baumgarten via Slovenia.
Benefit Description	It will be new interconnection, new entry point and transmission route for the needs of BH; it will be SoS and diversification of supply route for Bosnia and Herzegovina. It will anable BH access to Croatian UGS. This project is an interconnection of the gas systems of Croatia and Bosnia and Herzegovina on the route Slobodnica-Brod-Zenica. The most important impacts and benefits of this project: 1. It provides viability and security of supply of Bosnia and Herzegovina; 2. It provides diversification of supply routes and sources for the market of Bosnia and Herzegovina; 3. It provides development of the gas market in Bosnia and Herzegovina; 4. Introducing an environmentally more acceptable energy source (replacement for firewood, coal, fuel oil and complementary generation to renewable energy, and the potential for new CCGT and PP); 5. Reducing CO2 and SO2 emissions in the B&H and region and facilitating economic development.

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B	aı	rı	Т	ρ	r۷	

Barrier Type Description

Political This project is politically very sensitive and depends on the agreement with Republika Srpska and agreements within B&H and its TSOs (BH Gas and

GasRES)

Intergovernmental Agreements				
Agreement	Agreement Description		Is Signed A	greement Signature Date
Letter of Intent	between Plinacro and BH Gas for all projects of interconnection		Yes	06/04/2011
Memorandum of understanding	signed between Plinacro and BH Gas		Yes	26/06/2006

CBCA					
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not				
Submissin Date					
Decision Date					
Website					
Countries Affected					
Countries Net Cost Bearer					
Additional Comments					

Financ	ial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	
Other Financial Assistance	No
Comments	
General Comments	

Southern Interconnection pipeline BiH/CRO

TRA-N-851	Project	Pipeline including CS	Non-FID
Update Date	29/03/2018		Non-Advanced
Description	Southern Interconnection pipeline BIH/CRO (Zagvozd-Posusje-Travnik with main branch treceiving gas from Croatian gas transmission system which will enable it to get gas supply sources). Project will be bi-directional and together with gaspipeline Zenica-Brod creates a	from other markets (LNG, Caspian	117

PRJ Code - PRJ Name PRJ-G-014 - South Interconnection of BiH and Croatia

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	BH Gas d.o.o.	2023	HR/IAP	ВА	73.0 GWh/d
Posušje	Comment: Technical entry cap	acity from Croatia to Bil		nnical exit capacity atia is 38 GWh/day	

Sponsors			General Information	NDP and PCI Information		
BH-Gas d.o.o.	100%	Promoter	BH-GAS d.o.o.	Part of NDP	Yes (SPP-Strategic plan and programme	
		Operator	BH Gas d.o.o.		of FBiH)	
		Host Country	Bosnia Herzegovina	NDP Number	PTG2	
		Status	Planned	NDP Release Date	30/09/2009	
		Website	Project's URL	NDP Website	NDP URL	
				Currently PCI	No	
				Priority Corridor(s)	NSIE	

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		10/2013
Feasibility	04/2017	04/2018
FEED	07/2018	09/2019
Permitting	07/2018	09/2019
Supply Contracts		08/2020
FID		06/2018
Construction	09/2020	12/2021
Commissioning	2023	2023

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Posusje-Travnik with branch to Mostar		500	165	0	2023
	Total		165	0	

Expected Gas Sourcing

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

Comments about the Third-Party Access Regime

It is expected that TPA regime and Tariff methodology will be covered by gas primary legislation in accordance with Third Package at least up to the end of 2018.

	Benefits	
Main Driver	Others	
Main Driver Explanation	Currently BiH gas system is isolated and depending of one supply route. Project is to intercon establish new supply route for BiH providing reliable and diversified natural gas supply increase age of the existing supply route, South Interconnector in the near future could become the or of realization of this project, Government of Federation of BiH issued Conclusion V. No. 853/2 contained in Comprehensive Energy Strategy BiH 2035 which is in adoption process.	sing security of supply. Having in mind limited capacity and nly supply route for Federation of BiH. Because of the urgency
Benefit Description	Capacity of the existing system is jeopardise by intetion to connect a new consumers in RS rec Federation of BiH will directly depend on the realization of this project. Project will improve in traditional fuels in energy consumption sectors (residential and industrial) means significant p emissions.	nport route and supply source diversification. Lower usage of
	Barriers	
Barrier Type	Description	
Political	Lack of primary gas legislation in accordance with Third Energy Package, as well as energy pol	licy at the state level.
Regulatory	Lack of proper transposition of EU regulation	

barrier Type	Description
Political	Lack of primary gas legislation in accordance with Third Energy Package, as well as energy policy at the state level.
Regulatory	Lack of proper transposition of EU regulation
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

CBCA						
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not					
Submissin Date						
Decision Date						
Website						
Countries Affected						
Countries Net Cost Bearer						
Additional Comments						

	Financial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	
Other Financial Assistance	Yes
Comments	0,40 Million EUR from WBIF, PFS finalized in October 2013; 0,141 Million EUR from CONNECTA, CBA scheduled for February 2018
General Comments	

Interconnection Croatia-Bosnia and Herzegovina (South)

TRA-N-302	Project	Pipeline including CS	Non-FID
Update Date	26/02/2018		Advanced
Description	South Interconnection of Croatia and B&H - the pipeline is a new supply route for natural gas supply. The pipeline will enable the flow of IAP to Bosnia and Herzegov	9	e reliable and dievrsifed
PRJ Code - PRJ Name	PRJ-G-014 - South Interconnection of BiH and Croatia		

Capacity Increments V	ariant For Modelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
Posušje	Plinacro Ltd	2021	BA	HR/IAP	81.0 GWh/d
	Plinacro Ltd	2021	HR/IAP	ВА	81.0 GWh/d

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

Schedule	Start Date	End Date
Pre-Feasibility		09/2013
Feasibility		
FEED		
Permitting	08/2014	01/2021
Supply Contracts		
FID		01/2019
Construction	01/2020	01/2021
Commissioning	2021	2021

Enabled Projects

Project Code Project Name

TRA-N-68 Ionian Adriatic Pipeline

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Zagvozd-Imotski-Posušje		500	22		0
	Total		22		

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The project will provide the SoS for Bosnia and Herzegovina, as BiH has only one gas entry. Via this pipeline BiH will have an access to existing gas sources (Baumgarten) as well as new gas sources as Krk LNG and IAP. The pipeline will ensure the market integration of two transmission Specific Criteria Fulfilled Comments system. AS it will provide a new source of gas it will have an influence on the prices (competition). The project will have an influence on

gasification on the part of Croatia and Bosnia and Herzegovina, wich will influence on suistainibility as it will come to the replacement of the

usage of woods for heating.

Expected Gas Sourcing

Caspian Region, LNG (), Baumgarten via Slovenia and Croatia

	Benefits
Main Driver	Market Demand
Main Driver Explanatio	Market Demand and SoS for the Southern part of Bosnia and Herzegovina
Benefit Description	The aim of the project is to establish a new supply route for B&H providing a diversified and reliable natural gas supply.

	Intergovernmental Agreements	
Agreement	Agreement Description	Is Signed Agreement Signature Date
Letter of Intent	between Plinacro and BH Gas for all projects of interconnection	Yes 06/04/2011

	СВСА
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or
	not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance			
Applied for CEF	(3) No, we have not applied for CEF		
Grants for studies	No		
Grants for studies amount			
Grants for works	No		
Grants for works amount			
Intention to apply for CEF			
Other Financial Assistance	Yes		
Comments			
General Comments			

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

TRA-F-341	Project	Pipeline including CS	FID
Update Date	30/05/2018		Advanced
DASCRIPTION	The project is aimed to establish a well-functioning new bidirectional interconne integrate the isolated gas markets of the Baltic States into the EU gas grid, by in implementing the project a 165 km-long and 700 mm-diameter pipeline and galithuania's side.	troducing an alternative gas supply route to t	the Baltic States. By
PRJ Code - PRJ Name	PRJ-G-017 - Gas Interconnection Poland-Lithuania (GIPL)		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
lutanaan satan DL LT	AB Amber Grid	2021	LT	PL	58.3 GWh/d
Interconnector PL-LT	AB Amber Grid	2021	PL	LT	73.9 GWh/d
Sponsors	General Information		NDP and	PCI Information	

Sponsors		General Information		NDP and PCI Information		
AB Amber Grid	100%	Promoter	AB Amber Grid	Part of NDP	Yes (Network Development Plan 2017-	
		Operator	AB Amber Grid		2026)	
		Host Country	Lithuania	NDP Number	n/a	
		Status	In Progress	NDP Release Date	18/01/2018	
		Website	Project's URL	NDP Website	NDP URL	
			•	Currently PCI	Yes (8.5)	
				Priority Corridor(s)	BEMIP	

Current TYNDF	: TYNDP 20	18 FINAL - <i>A</i>	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2012
Feasibility	02/2012	02/2013
FEED	05/2015	09/2016
Permitting	07/2016	09/2016
Supply Contracts		
FID		03/2018
Construction	03/2018	06/2021
Commissioning	2021	2021

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Border PL/LT - Jauniunai		700	165		0
	Total		165		

			Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

It is one of the key projects in the area of infrastructure providing security of supplies, being of significant importance for the energy security of the EU. The project will contribute to the sustainability and increase of the diversification of the sources in the region.

Time Schedule

Grant Obtention Date

15/10/2015

Delay Since Last TYNDP

Delay Explanation

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-	7218	ωт	HS.	

Main Driver Market Demand

Main Driver Explanation

Benefit Description

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	31/10/2013	Grants for studies	Yes
Decision Date	11/08/2014	Grants for studies amount	Mln EUR 0
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected		Grants for works amount	Mln EUR 0
Countries Net Cost Bearer	Estonia;#Latvia;#Lithuania	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	Yes
		Comments	
		General Comments	

Gas Interconnection Poland-Lithuania (GIPL) - PL section

TRA-F-212	Project Project	Pipeline including CS	FID
Update Date	30/05/2018		Advanced
Description	GIPL aims to connect the gas transmission systems in Poland and Lithuania and, co the Baltic States (and Finland) with the Polish and EU gas markets. This will contribu- competition and the security of gas supply. The project will also provide an access to in Świnoujście. The construction of GIPL, except the above benefits for security and to connect the Baltic States with the CEE countries, thus providing strategic link bet scope of the project on the Polish side covers Hołowczyce - PL-LT border pipeline,	ate to the creation of a regional gas marke to the global LNG market for the Baltic St diversification of gas supplies in the Balti ween the BEMIP and North-South East pr	et, enhancement of ates via the LNG terminal c region, will also allow iority corridors. The
PRJ Code - PRJ Name	PRJ-G-017 - Gas Interconnection Poland-Lithuania (GIPL)		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Internation DI LT	GAZ-SYSTEM S.A.	2021	LT	PL	58.3 GWh/d
Interconnector PL-LT	GAZ-SYSTEM S.A.	2021	PL	LT	73.9 GWh/d

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

Current	TYNDP:	TYNDP	2018	FINAL	- Annex A

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	06/2015	10/2019
Permitting	12/2015	10/2019
Supply Contracts		
FID		
Construction		
Commissioning	2021	2021

national economies.

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Regulated
Regulated
No
Not Relevant
0.00%
0.00%

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Gustorzyn				30	0
CS Hołowczyce - modernization					0
GIPL - Polish section		700	357		0
	Total		357	30	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability				
	Market integration: - Completing a missing interconnection between PL and LT; - the continental gas market, lifting the isolation of the East Baltic region; - Creatio		_		_

Specific Criteria Fulfilled Comments States; - Diversification of supply sources, routes and counterparts by bringing EU spot gas and NO supplies to the Baltic States and FI; -

Baltic region. SoS: - Access to new sources of supply in the Baltic States and FI; - Mitigation of exposure to supply disruption via BY in the Baltic

Reduction of dependence on gas supplies from RU in the Baltic States and FI. Competition: - Reduction of price differences between the East Baltic region and North-West regions. Sustainability: - Reduction of emissions in PL and the East Baltic region by promoting natural gas in

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP

Yes

Delay Explanation

	Benefits Programme Benefits
Main Driver	Others
Main Driver Explanati	on Regulation SoS, market integration
Benefit Description	The objective of the project is the integration of the isolated gas markets of the Baltic States into the EU gas grid by introducing an alternative gas supply route to the Baltic States. This interconnection will diversify the gas supply sources, increase the security of supply and enhance competition on the gas market in the Baltic States. For the Baltic States, GIPL will provide the access both to EU gas spot market and to the global LNG market via LNG terminal in Swinoujscie. The implementation of the project will also contribute to creating better conditions for the use of the Latvian Inčukalns UGS for Lithuania's and, in future, for Poland's gas market participants. Also through GIPL, gas could be supplied to currently non-gasified areas in Poland and Lithuania.
	Barriers
Barrier Type	Description
Permit Granting	Efficient permitting procedures are necessary for timely implementation of the project.
Political	Lack of guarantees of covering entire project costs when the project is not commercially viable in all market scenarios (SoS project).
Others	Lack of guarantees of covering entire project costs when the project is not commercially viable in all market scenarios (SoS project). Risk of the lack of interest in capacity booking in the first period of operation due to unmaturity of the gas markets in the Baltic States.
Market	Lack of market maturity

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	31/10/2013	Grants for studies	Yes
Decision Date	11/08/2014	Grants for studies amount	
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Estonia, Latvia, Lithuania	Grants for works amount	
Countries Net Cost Bearer	Poland	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	Yes
		Comments	TEN-E: Study: Identification of the business case and feasibility study for the Gas Interconnection Poland-Lithuania. TEN-E: Environmental Impact Assessment documentation up to environmental decision obtainment for the Gas Interconnection Poland - Lithuania.
		General Comments	

Baltic Pipe project – onshore section in Denmark

TRA-N-780	Project	Pipeline including CS	Non-FID
Update Date	14/09/2018		Advanced
Description	Reinforcement of the Danish Transmission System for transporting approx. 10 bcm/ (TRA-N-394) to the Baltic Pipe entry/exit point in DK. The project consists of construction of a new offshore pipeline across the Little Belt, construction of a new new pipeline on Zealand from Kongsmark to the Baltic Sea offshore landfall at the s Zealand. - Former project name: "Nybro-Interconnector PL-DK - reinforcement" - The project TRA-N-428 "(Mirror) Baltic Pipe" is included in this project.	uction of a new onshore pipeline from Eg pipeline over Fyn from the Little Belt to N	tved to the Little Belt, lyborg, construction of a
PRJ Code - PRJ Name	PRJ-G-021 - Baltic Pipe Project		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Interconnector DI DI/	Energinet	2022	DK	PL	306.8 GWh/d
Interconnector PL-DK	Energinet	2022	PL	DK	91.1 GWh/d
Nybro	Energinet	2022	IB-NPcDKn	DK	306.8 GWh/d

Sponsors	General Information		ND	P and PCI Information
	Promoter	Energinet.dk	Part of NDP	No ((5) others - please comment below)
	Operator	Energinet	NDP Number	
	Host Country	Denmark	NDP Release Date	
	Status	Planned	NDP Website	
	Website	Project's URL	Currently PCI	Yes (8.3.1)
			Priority Corridor(s)	BEMIP

Current	TYNDF) : TYN	IDP 2018	3 FINAL -	 Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	09/2015	12/2016
FEED	06/2018	02/2020
Permitting	12/2017	07/2019
Supply Contracts		
FID		12/2018
Construction	03/2020	10/2022
Commissioning	2022	2022

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

Enabled Projects

Project Code Project Name

TRA-N-394 Norwegian tie-in to Danish upstream system

Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability			
Specific Criteria Fulfilled Comments	Market integration: - Creation of a well-integrated and functioning market in the West Baltic region; - Completing a missing interconnection between PL and DK. SoS: - Diversification of supply sources, routes and counterparts by bringing Norwegian gas to the West Baltic and CEE regions and by allowing to import gas from the LNG terminal in Świnoujście in DK and SE; - Reduction of dependence on a single supply source in the CEE region; - Mitigation of exposure to supply disruption in the West Baltic and CEE regions; - Mitigation of negative impact linked to decreasing indigenous production in DK. Competition: - Reduction of price differences between the BEMIP and North-West regions. Sustainability: - Reduction of emissions in the BEMIP and CEE regions by promoting natural gas in national economies.			

Expected Gas Sourcing

Norway

		Benefits	
Main Driver	Market Demand		
Main Driver Explana	ation		
Benefit Description			

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В	а	rr	16	٦r	ς.

Barrier Type Description

Regulatory Limitations on duration of capacity contracts (15 years) increase project risks and thus impact investment incentives for project promoters.

Permit Granting All necessary permits from relevant authorities in several countries should be granted in time.

	СВСА
Decision	Yes, we have submitted an investment request and have received a decision
Submissin Date	27/10/2017
Decision Date	27/02/2018
Website	<u>CBCA URL</u>
Countries Affected	Denmark, Poland, Sweden
Countries Net Cost Bearer	
Additional Comments	The Danish NRA (DERA) approved the CBCA on the 27 February 2018. The Polish NRA (URE) approved the CBCA on the 12 March 2018. The Danish decision can be found here: http://energitilsynet.dk/gas/afgoerelser/tilsynsafgoerels er/2018/godkendelse-af-omkostningsfordelingenmellem-polen-og-danmark-for-baltic-pipe-projektet/ The Polish decision can be found here: https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje/inne-decyzje-informacj/3634,Inne-decyzje-informacje-
	sprawozdania-opublikowane-w-2018-r.html? search=3253

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

Poland - Denmark interconnection (Baltic Pipe) - offshore section

TRA-N-271	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Advanced
Description	The projects in the group aim at connecting the gas transmission systems in Poland an countries in the Baltic Sea region and Central-Eastern Europe. The project will also bring diversify their supply potential (deliveries of LNG from the terminal in Świnoujście) in the North Sea. The project is composed of the following investments that are mutually dependent and Baltic Pipe project: Baltic Pipe (offshore section); onshore receiving terminal in Poland; transmission system.	g the opportunity for the Danish and ne context of declining production in the declining by the benefit dispersion in the benefit dispersion.	Swedish markets to the Danish part of the sand realization of the
PRJ Code - PRJ Name	PRJ-G-021 - Baltic Pipe Project		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Interconnector DI DIV	GAZ-SYSTEM S.A.	2022	DK	PL	306.8 GWh/d
Interconnector PL-DK	GAZ-SYSTEM S.A.	2022	PL	DK	91.1 GWh/d

Sponsors			General Information	ND	P and PCI Information
GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission
		Operator	GAZ-SYSTEM S.A.	Tare of ND1	System Development Plan 2018-2027)
		Host Country	Poland	NDP Number	N/A
		Status	Planned	NDP Release Date	
		Website	Project's URL	NDP Website	NDP URL
				Currently PCI	Yes (8.3.2)
				Priority Corridor(s)	BEMIP

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	08/2017	
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022

	<u> </u>
Third-Party Access Regi	me
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

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

Fulfilled Criteria		
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability	
Specific Criteria Fulfilled Comments	Market integration: - Creation of a well-integrated and functioning market in the West Baltic region; - Completing a missing interconnection between PL and DK. SoS: - Diversification of supply sources, routes and counterparts by bringing Norwegian gas to the West Baltic and CEE regions and by allowing to import gas from the LNG terminal in Świnoujście in DK and SE; - Reduction of dependence on a single supply source in the CEE region; - Mitigation of exposure to supply disruption in the West Baltic and CEE regions; - Mitigation of negative impact linked to decreasing indigenous production in DK. Competition: - Reduction of price differences between the BEMIP and North-West regions. Sustainability: - Reduction of emissions in the BEMIP and CEE regions by promoting natural gas in national economies.	

Description

Barrier Type
Permit Granting

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

Efficient permitting procedures are necessary for timely implementation of the project.

CBCA		
Decision	Yes, we have submitted an investment request and have received a decision	
Submissin Date	27/10/2016	
Decision Date	12/03/2018	
Website		
Countries Affected		
Countries Net Cost Bearer		
Additional Comments		

Financial Assistance		
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Grants for studies	Yes	
Grants for studies amount		
Grants for works	No	
Grants for works amount		
Intention to apply for CEF		
Other Financial Assistance	Yes	
	TEN-E: "Baltic Pipe - Gas pipeline from Denmark to Poland - Pre-investment studies and authority process"	
Comments	TEN-E: "Baltic Pipe - Gas pipeline from Denmark to Poland – Geotechnical offshore survey, environmental monitoring programme and onshore gas quality study and receiving terminal in Poland"	
General Comments		

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

TRA-N-1173	Project Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Advanced
Description	The project aims at connecting the gas transmission systems in Poland and Denmar the Baltic Sea region and Central-Eastern Europe. The project will also bring the opp supply potential (deliveries of LNG from the terminal in Świnoujście) in the context of The project is composed of the following investments that are mutually dependent a Baltic Pipe project: Goleniów – Lwówek pipeline, CS Gustorzyn, CS Goleniów, CS Ode	portunity for the Danish and Swedish man of declining production in the Danish par and hence each necessary for the benefit	rkets to diversify their rt of the North Sea.

PRJ Code - PRJ Name PRJ-G-021 - Baltic Pipe Project

Capacity increments variant For Modelling					- C C .	T C C .	
Point		Operat	or	Year	From Gas Systen	n To Gas System	Capacity
Aggregated Distribution (PL)	GAZ-SY	STEM S.A.	2022	DScPL	PL	0.0 GWh/d	
Sponsors			General Information		NDP a	nd PCI Information	
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A	ا. Part ر		Yes (National Ten-Ye	
		Operator	GAZ-SYSTEM S.A		S	System Development I	Plan 2018-2027)
		Host Country	Polan	d NDP	Number		N/A
		Status	Planne	d NDP	Release Date		
		Website	Project's UR	<u>L</u> NDP	Website		NDP URL
			,	Curre	ently PCI		Yes (8.3.2)
				Priori	ity Corridor(s)		BEMIP

Current ⁻	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	11/2017	
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022

Enabled Projects

Project Code Project Name

Poland - Denmark interconnection (Baltic Pipe) - offshore section TRA-N-271

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Goleniów				12	0
CS Gustorzyn				15	0
CS Odolanów				14	0
Goleniów – Lwówek pipeline		1,000	188		0
	Total		188	41	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The project is an internal enabler for the Baltic Pipe project - offshore section. The implementation of the project will have an impact on: Market integration: - Creation of a well-integrated and functioning market in the West Baltic region; - Completing a missing interconnection between PL and DK. SoS: - Diversification of supply sources, routes and counterparts by bringing Norwegian gas to the West Baltic and CEE Specific Criteria Fulfilled Comments regions and by allowing to import gas from the LNG terminal in Świnoujście in DK and SE; - Reduction of dependence on a single supply source in the CEE region; - Mitigation of exposure to supply disruption in the West Baltic and CEE regions; - Mitigation of negative impact linked to decreasing indigenous production in DK. Competition: - Reduction of price differences between the BEMIP and North-West regions. Sustainability: - Reduction of emissions in the BEMIP and CEE regions by promoting natural gas in national economies.

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

CBCA							
Decision	Yes, we have submitted an investment request and have received a decision						
Submissin Date	27/10/2016						
Decision Date	12/03/2018						
Website							
Countries Affected							
Countries Net Cost Bearer							
Additional Comments							

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

Czech-Polish Gas Interconnector (CPI)

TRA-N-136	Project	Pipeline including CS	Non-FID
Update Date	23/03/2018		Advanced
Description	The subject of the project (Czech part) is the construction of the DN 1000 gas pipel and Polish transmission systems. It also includes upgrade of the existing compressed construct the robust bidirectional interconnector between Poland and the Czech Reoperators of the Czech Republic (NET4GAS s.r.o.) and Poland (GAZ-SYSTEM S.A.) The Czech part of CPI consists of the following subprojects: 1) Poland-Czech Republic interconnector (STORK II; PCI project No. 6.2.10), and 2) Tvrdonice-Libhošť pipeline, including upgrade of CS Břeclav (PCI project No. 6.2.	or station Břeclav on the Czech side. The a epublic. Project is jointly coordinated by th	im of the project is to
PRJ Code - PRJ Name	PRJ-G-022 - Poland - Czech Republic Interconnection		
TRA-N-136	Project	Pipeline including CS	Non-FID
Update Date	23/03/2018		Advanced
Description	The subject of the project (Czech part) is the construction of the DN 1000 gas pipel and Polish transmission systems. It also includes upgrade of the existing compressed construct the robust bidirectional interconnector between Poland and the Czech Reoperators of the Czech Republic (NET4GAS s.r.o.) and Poland (GAZ-SYSTEM S.A.) The Czech part of CPI consists of the following subprojects: 1) Poland-Czech Republic interconnector (STORK II; PCI project No. 6.2.10), and 2) Tvrdonice-Libhošť pipeline, including upgrade of CS Břeclav (PCI project No. 6.2.	or station Břeclav on the Czech side. The a epublic. Project is jointly coordinated by th	im of the project is to
PRJ Code - PRJ Name	PRJ-G-022 - Poland - Czech Republic Interconnection		

Capacity Incre	ements Variant For Modelling					
Point		Operator	Year	From Gas System	To Gas System	Capacity
		NET4GAS, s.r.o.	2022	CZ	PL	219.1 GWh/d
l l a #			Comment: Exit from CZ to PL			
Hať		NET4GAS, s.r.o.	2022	PL	CZ	153.2 GWh/d
				Comment: E	ntry from PL to CZ	

Sponsors		General Information		NDP and PCI Information	
Czech Republic		Promoter	NET4GAS, s.r.o.	Part of NDP	Yes (CZ NDP 2016-2025 (approved))
NET4GAS, s.r.o.	100%	Operator	NET4GAS, s.r.o.	NDP Number	TRA-N-136
Poland		Host Country	Czechia	NDP Release Date	31/10/2015
Operator Gazociągów Przesyłowych GAZ-SYSTEM		Status	Planned	NDP Website	<u>NDP URL</u>
S.A.	100%	Website	Project's URL	Currently PCI	Yes (6.2.10)
		Promoter	NET4GAS, s.r.o.	Priority Corridor(s)	NSIE
		Operator	NET4GAS, s.r.o.	Part of NDP	Yes (CZ NDP 2016-2025 (approved))
		Host Country	Czechia	NDP Number	TRA-N-136
		Status	Planned	NDP Release Date	31/10/2015
		Website	Project's URL	NDP Website	<u>NDP URL</u>
				Currently PCI	Yes (6.2.12)
				Priority Corridor(s)	NSIE

Schedule	Start Date	End Date
Pre-Feasibility		08/2011
Feasibility	01/2009	12/2012
FEED	11/2014	10/2017
Permitting	02/2016	11/2019
Supply Contracts		11/2020
FID		12/2019
Construction	07/2021	12/2022
Commissioning	2022	2022
Pre-Feasibility		08/2011
Feasibility	01/2009	12/2012
FEED	11/2014	10/2017
Permitting	02/2016	11/2019
Supply Contracts		11/2020
FID		12/2019
Construction	07/2021	12/2022
Commissioning	2022	2022

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Tvrdonice (CZ) - Hat' (CZ/PL)	The pipeline length at CZ side is approx. 207.4 k (Tvrdonice-Hat'). Upgrade of the existing compressation Břeclav (CZ) is needed.		207	24	2022
	Total		207	24	

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Fulfil	IDAI.	(ritc	ria

Competition, Market Integration, Security of Supply, Sustainability Specific Criteria Fulfilled

The Poland-Czech Republic Interconnector meets following criteria: - Market integration through increasing cross-border capacity between CZ and PL markets. - Competition by connecting Poland to CEGH hub in Baumgarten and NCG hub in Germany. - Sustainability through CO2 Specific Criteria Fulfilled Comments emission reduction. - Diversification of sources of gas supply through connection to the Adriatic, Baltic and Black Seas as well as the LNG terminals in Croatia and Poland and therefore completing the North-South Gas Corridor. - Security of supply by keeping the possibility of gas supply from non-Russian sources and thus supporting increase of security of supply as well as route diversification.

Competition, Market Integration, Security of Supply, Sustainability Specific Criteria Fulfilled

The Poland-Czech Republic Interconnector meets following criteria: - Market integration through increasing cross-border capacity between CZ and PL markets. - Competition by connecting Poland to CEGH hub in Baumgarten and NCG hub in Germany. - Sustainability through CO2 Specific Criteria Fulfilled Comments emission reduction. - Diversification of sources of gas supply through connection to the Adriatic, Baltic and Black Seas as well as the LNG terminals in Croatia and Poland and therefore completing the North-South Gas Corridor. - Security of supply by keeping the possibility of gas supply from non-Russian sources and thus supporting increase of security of supply as well as route diversification.

Time Schedule

Grant Obtention Date 01/01/2018

Delay Since Last TYNDP 4 years

Delay Explanation Delay was caused by political decisions.

Grant Obtention Date 01/01/2018 **Delay Since Last TYNDP** 4 years

Delay Explanation Delay was caused by political decisions.

	Benefits
Main Driver	Others
Main Driver Explanatior	Competition, Market Intergration
Benefit Description	The Project benefits are: (a) The Project aims to increase the cross-border capacity between Poland and the Czech Republic by establishing a large transportation corridor that will allow for flexible transport of gas in Central Europe in direction North-South; (b) Implementation of the Project will increase the security of gas supply and provide the overall flexibility for the CEE region and diversify the supply routes for the CEE region; (c) Improve European gas grid interconnection; (d) Increase the security and reliability of the cross-border gas transmission between the Czech Republic and Poland; (e) Create a robust, well-functioning internal market in the Czech Republic and Poland and promote the competition; (f) Contribute to the creation of the integrated and competitive gas market in CEE region and thus decrease gas prices.
Main Driver	Others
Main Driver Explanation	Competition, Market Intergration
Benefit Description	The Project benefits are: (a) The Project aims to increase the cross-border capacity between Poland and the Czech Republic by establishing a large transportation corridor that will allow for flexible transport of gas in Central Europe in direction North-South; (b) Implementation of the Project will increase the security of gas supply and provide the overall flexibility for the CEE region and diversify the supply routes for the CEE region; (c) Improve European gas grid interconnection; (d) Increase the security and reliability of the cross-border gas transmission between the Czech Republic and Poland; (e) Create a robust, well-functioning internal market in the Czech Republic and Poland and promote the competition; (f) Contribute to the creation of the integrated and competitive gas market in CEE region and thus decrease gas prices.
	Barriers

	Barriers						
Barrier Type	Description						
Permit Granting	Large delays in process at the Ministry of Regional Development.						
Political	Change of political decisions.						
Regulatory	Lack of proper transposition of EU regulation						
Regulatory	Low rate of return						

Intergovernmental Agreements							
Agreement	Agreement Description	Is Signed	Agreement Signature Date				
Memorandum of understanding	On the cooperation in the natural gas sector aimed at implementation of the Czech Republic-Poland Interconnection Project	Yes	20/04/2015				
Memorandum of understanding	On the cooperation in the natural gas sector aimed at implementation of the Czech Republic-Poland Interconnection Project	Yes	06/09/2016				
Memorandum of understanding	On project of expanded interconnection between gas transmission system of Republic of Poland and Czech Republic (STORK II)	Yes	12/12/2016				

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision;#(2) Yes, we have applied for CEF, but we have
Submissin Date	31/10/2013		not received a decision yet
Decision Date	17/10/2014	Grants for studies	Yes
Website	<u>CBCA URL</u>	Grants for studies amount	Mln EUR 0
Countries Affected	Czechia, Poland	Grants for works	No
Countries Net Cost Bearer	Czechia;#Poland	Grants for works amount	
Additional Comments		Intention to apply for CEF	No decision yet taken
Decision	Yes, we have submitted an investment request and have	Other Financial Assistance	Yes
Decision	received a decision	Comments	TEN-E, 371 622 EUR
Submissin Date Decision Date	31/10/2013 17/10/2014	General Comments	Decision of CEF grant for CS Břeclav has been taken. The Grant Agreement is now under development.
Website Countries Affected	<u>CBCA URL</u> Czechia, Poland	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision;#(2) Yes, we have applied for CEF, but we have not received a decision yet
Countries Net Cost Bearer	Czechia;#Poland	Grants for studies	Yes
Additional Comments		Grants for studies amount	Mln EUR 0
		Grants for works	No
		Grants for works amount	
		Intention to apply for CEF	No decision yet taken
		Other Financial Assistance	Yes
		Comments	TEN-E, 371 622 EUR
		General Comments	Decision of CEF grant for CS Břeclav has been taken. The Grant Agreement is now under development.

Poland - Czech Republic Gas Interconnection (PL section)

TRA-N-273	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Advanced
Description	The project aims to increase the cross-border capacity between Poland and the Cze will allow flexible transport of gas in Central-Eastern Europe within the North-South reinforcement of the effective operation of the gas transmission systems, efficient g security of supply not only for Poland and the Czech Republic, but also for the CEE reterminal in Świnoujście and Norwegian gas via the Baltic Pipe project.	corridor. The development of the project as exchange between the markets, as wel	t will contribute to I as increase of the
PRJ Code - PRJ Name	PRJ-G-022 - Poland - Czech Republic Interconnection		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
III-e	GAZ-SYSTEM S.A.	2022	CZ	PL	219.1 GWh/d
Hať	GAZ-SYSTEM S.A.	2022	PL	CZ	153.2 GWh/d

Sponsors		General Information		NDP and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission	
		Operator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)	
		Host Country	Poland	NDP Number	N/A	
		Status	Planned	NDP Release Date		
		Website	Project's URL	NDP Website	NDP URL	
			_ •	Currently PCI	Yes (6.2.10)	
				Priority Corridor(s)	NSIE	

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	07/2015	12/2017
Permitting	07/2016	12/2017
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022

9	
Third-Party Access Regime	
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
PL-CZ Interconnection - Polish section		1,000	54		0
	Total		54		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	Market integration: - Creation of a well-integrated and functioning market in the CEE region. SoS: - Mitigation of effects resulting from supply disruptions in the CEE countries; - Reduction of dependence on gas supplies from Russia in the CEE region; - Enhanced security of supply with an improved supply link in the CEE region to the European gas market, global LNG supplies, deliveries of gas from Norway. Competition: - Reduction of price differences between the CEE and North-West regions; - Enhanced access to new sources of supply in the CEE region (LNG, Norway, supplies from the EU market) that improves competition not only in PL but also in the whole CEE region. Sustainability - Reduction of emissions in the CEE region by promoting natural gas in national economies.

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

Additional Comments

Barriers					
Barrier Type	Description				
Permit Granting	Permit Granting Efficient permitting procedures are necessary for timely implementation of the project.				
Political Due to the project drivers which are mainly related to SoS in Central-Eastern Europe, the project does not meet the criterion of economic vial external co-financing is indispensable. Lack of external financial support may be a serious barrier in implementation.					
Others	Due to the project drivers which are mainly related to SoS in Central-Eastern Europe, the project does not meet the criterion of economic viability, so the external co-financing is indispensable. Lack of external financial support may be a serious barrier in implementation.				

CBCA				
Decision	Yes, we have submitted an investment request and have received a decision			
Submissin Date	31/10/2013			
Decision Date	24/06/2014			
Website	<u>CBCA URL</u>			
Countries Affected				
Countries Net Cost Bearer				

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

Poland - Ukraine Gas Interconnection (PL section)

TRA-N-621	Project Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Advanced
Description	The objective of the project is to create a large transportation corridor between the construction of a new gas pipeline between the Hermanowice gas node or of the Project on the Polish side: Hermanowice-PL/UA border pipeline; Meterin transmission system development in Poland: Hermanowice-Strachocina pipeline; Tworóg-Tworzeń pipeline.	n the Polish side and Bliche Volytsia UGS on th ng station in Poland; Extenstion of CS Strachoo	e Ukrainian side. Scope iina; Necessary additional
PRJ Code - PRJ Name	PRJ-G-028 - Poland - Ukraine Gas Interconnection		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
PL>UA Interconnector	GAZ-SYSTEM S.A.	2020	PL	UAe	153.2 GWh/d
UA>PL Interconnector	GAZ-SYSTEM S.A.	2020	UA	PL	153.2 GWh/d

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

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	09/2016	09/2018
Permitting	10/2016	09/2018
Supply Contracts		
FID		
Construction		
Commissioning	2020	2020

ne
Regulated
Regulated
No
Not Relevant
0.00%
0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Hermanowice Node - PL/UA border pipeline	The exact length - 1,5km	1,000	2		0
	Total		2		

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

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

Interconnection ES-PT (3rd IP) - 1st phase

TRA-N-168	Project	Pipeline including CS	Non-FID
Update Date	09/11/2018		Non-Advanced
Description	This projects consist on: - a pipeline from Zamora to the Portuguese border - an expansion of the compressor station in Zamora (Spain)		
PRJ Code - PRJ Name	PRJ-G-036 - Interconnection ES-PT (3rd interconnection)		

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Enagas Transporte S.A.U.	2024	PT	ES	70.0 GWh/d
VID IDEDICO	Comment: According to the best avo Enagás and REN Gasodutos the comm on the Spanish sid	non capacity value	,	PT-ES. Capacities	
VIP IBERICO	Enagas Transporte S.A.U.	2024	ES	PT	70.0 GWh/d
	Comment: According to the best ava	non capacity value		PT-ES. Capacities	

Sponsors	Gei	neral Information	NE	PP and PCI Information	
CS Zamora		Promoter	Enagás Transporte, S.A.U.	Part of NDP	No ((5) others - please comment below)
Enagás Transporte, S.A.U.	100%	Operator	Enagas Transporte S.A.U.	NDP Number	
Zamora - Portuguese Border		Host Country	Spain	NDP Release Date	
Enagás Transporte, S.A.U.	100%	Status	Planned	NDP Website	
	10070	Website		Currently PCI	Yes (5.4.1)
				Priority Corridor(s)	NSIW

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2019	05/2020
FEED	01/2019	05/2020
Permitting	09/2019	12/2021
Supply Contracts		
FID		05/2020
Construction	04/2022	12/2023
Commissioning	2024	2024

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Zamora	According to the best available data of the reassessment that is being developed by Enagás and REN Gasodutos the common capacity value is 70 ES-PT & 70 GWh PT-ES. Capacities on the Spanish side before applying the lesser rule: 70 ES-PT & 70 GWh PT-ES			4	2023
Zamora - Portuguese Border	According to the best available data of the reassessment that is being developed by Enagás and REN Gasodutos the common capacity value is 70 ES-PT & 70 GWh PT-ES. Capacities on the Spanish side before applying the lesser rule: 70 ES-PT & 70 GWh PT-ES		86		2023
	Total		86	4	

Fulfilled Criteria

Specific Criteria Fulfilled Market Integration, Security of Supply

The project is important for the integration of the Portuguese market at Iberian and European level, improving competition and providing shippers with access to alternative balancing gas. From the point of view of security of supply, the 3rd Interconnection Portugal-Spain is Specific Criteria Fulfilled Comments necessary to improve the N-1 criterion fulfilment (Regulation (EC) N° 994/2010) for the Portuguese natural gas system, considering the total failure of the most important supply infrastructure of the network - the LNG Terminal in Sines - during a day of exceptionally high gas demand occurring with a statistical probability of once in 20 years, as defined in the Regulation.

Expected Gas Sourcing

Algeria, LNG ()

	Benefits
Main Driver	Others
Main Driver Explanation	on Integration of the Iberian Peninsula gas market with the rest of Europe
Benefit Description	The development of this project is linked to the development of a new interconnection between France and Spain by Spanish infrastructure promoters.
	Barriers
Barrier Type	Description
Regulatory	It would be difficult to carry out an Open Season due to the size of the Portuguese market and the lack of long-term contracts in Portugal. The lack of long term binding commitments from network users cannot guarantee the return of the investment to the Spanish system.
Others	It would be difficult to carry out an Open Season due to the size of the Portuguese market and the lack of long-term contracts in Portugal. The lack of long term binding commitments from network users cannot guarantee the return of the investment to the Spanish system.
Market	Lack of market support
Regulatory	Low rate of return

Intergovernmental Agreements				
Agreement	Agreement Description	Is Signed	Agreement Signature Date	
Lisbon Declaration	European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Yes	27/07/2018	
Madrid Declaration	Commission, France, Portugal and Spain sign High Level Group agreement to break energy barriers	Yes	04/03/2015	

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or
	not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Fina	ancial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	
Other Financial Assistance	No
Comments	
General Comments	

Interconnection ES-PT (3rd IP) - 2nd phase

TRA-N-729	Project	Pipeline including CS	Non-FID	
Update Date	09/11/2018		Non-Advanced	
Description	The second phase of the third interconnection between Spain and Portugal consists on a pipeline from Guitiriz-Zamora-Adradas			
PRJ Code - PRJ Name	PRJ-G-036 - Interconnection ES-PT (3rd interconnection)			

Point	Operator	Year	From Gas System	To Gas System	Capacity	
VIP IBERICO	Enagas Transporte S.A.U.	2028	PT	ES	72.0 GWh/d	
	Comment: According to the best available data of the reassessment that is being developed by Enagás and REN Gasodutos the common capacity value is 139 ES-PT & 126 GWh PT-ES. Capacities on the Spanish side before applying the lesser rule: 142 ES-PT & 142 GWh PT-ES					
	Enagas Transporte S.A.U.	Enagas Transporte S.A.U. 2028 ES PT		PT	72.0 GWh/d	
	Comment: According to the best available data of the reassessment that is being developed by Enagás and REN Gasodutos the common capacity value is 139 ES-PT & 126 GWh PT-ES. Capacities on the Spanish side before applying the lesser rule: 142 ES-PT & 142 GWh PT-ES					

Sponsors		General Information		NDP and PCI Information		
Castropodame - Zamora		Promoter	Enagás Transporte, S.A.U.	Part of NDP	Yes (Guitiriz-Lugo-Zamora-Adradas	
Enagás Transporte, S.A.U.	100%	Operator	Enagas Transporte S.A.U.	Tare of 1421	pipeline)	
Guitiriz - Lugo		Host Country	Spain	NDP Number	No code in the NDP	
Enagás Transporte, S.A.U.	100%	Status	Planned	NDP Release Date	01/05/2018	
Lilagas Italisporte, S.A.O.	10076	Website		NDP Website	NDP URL	
Lugo - Villafranca del Bierzo				Currently PCI	Yes (5.4.2.)	
Enagás Transporte, S.A.U.	100%			Priority Corridor(s)	NSIW	
Villafranca del Bierzo - Castropodame						
Enagás Transporte, S.A.U.	100%					
Zamora - La Barbolla - Adradas						
Enagás Transporte, S.A.U.	100%					

Current TYNDP: TYNDP 2018 FINAL - Annex A

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

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Castropodame - Zamora		600	170		2028
Guitiriz - Lugo		740	28		2028
Lugo - Villafranca del Bierzo		740	90		2028
Villafranca del Bierzo - Castropodame		740	30		2028
Zamora - La Barbolla - Adradas		800	307		2028
	Total		625		

Fulfilled Criteria

Specific Criteria Fulfilled Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments This project has been included in the PCI list in 2013, 2015 and 2017.

Expected Gas Sourcing

Algeria, LNG ()

	Benefits Programme Control of the Co
Main Driver	Others
Main Driver Explanation	Integration of the Iberian Peninsula gas market with the rest of Europe
Benefit Description	The development of this project is linked to the development of a new interconnection between France and Spain by Spanish infrastructure promoters.
	Barriers
Barrier Type	Description
Regulatory	It would be difficult to carry out an Open Season due to the size of the Portuguese market and the lack of long-term contracts in Portugal. The lack of lon term binding commitments from network users cannot guarantee the return of the investment to the Spanish system.
Market	It would be difficult to carry out an Open Season due to the size of the Portuguese market and the lack of long-term contracts in Portugal. The lack of long term binding commitments from network users cannot guarantee the return of the investment to the Spanish system.
Regulatory	Low rate of return

Intergovernmental Agreements					
Agreement	Agreement Description	Is Signed	Agreement Signature Date		
Madrid Declaration	Commission, France, Portugal and Spain sign High Level Group agreement to break energy barriers	Yes	04/03/2015		
Lisbon Declaration	European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Yes	27/07/2018		

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bo	earer
Additional Comments	S

Financial Assistance		
Applied for CEF	(3) No, we have not applied for CEF	
Grants for studies	No	
Grants for studies amount		
Grants for works	No	
Grants for works amount		
Intention to apply for CEF		
Other Financial Assistance	No	
Comments		
General Comments		

3rd IP between Portugal and Spain (Compressor Station)

TRA-N-284	Project	Pipeline including CS	Non-FID
Update Date	09/11/2018		Non-Advanced
Description	The 3RD Interconnection Point (IP) PORTUGAL-SPAIN is located in the priority of Spain by crossing the border between both Member States. This project will contain a compressor station in the already existing pipeline Ca		involves Portugal and
	This project enables the project TRA-N-285 3rd IP between Portugal and Spain	Spain (pipeline Cantanhede-Mangualde).	
PRJ Code - PRJ Name	PRJ-G-036 - Interconnection ES-PT (3rd interconnection)		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
A	REN - Gasodutos, S.A.	2028	PT	ES	27.0 GWh/d
VID IDEDICO	Comment: Second Step. of the 3RD Interconnection Point (IP) between Portugal and SP.				
VIP IBERICO	REN - Gasodutos, S.A.	2028	ES	PT	22.0 GWh/d
	Comment: Second Step. of the	ne 3RD Interconnec	ction Point (IP) betwee	en Portugal and SP.	

Sponsors			General Information	NDP and PC	Information
REN Gasodutos	100%	Promoter	REN-Gasodutos, S.A.	Part of NDP	Yes (PDIRGN 2017)
		Operator	REN - Gasodutos, S.A.	NDP Number	-
		Host Country	Portugal	NDP Release Date	
		Status	Planned	NDP Website	NDP URL
		Website	<u>Project's URL</u>	Currently PCI	Yes (5.4.2.)
				Priority Corridor(s)	NSIW

Schedule	Start Date	End Da	ate
Pre-Feasibility			
Feasibility			
FEED			
Permitting			
Supply Contracts			
FID			
Construction			
Commissioning	2028	20	028

Enabled Projects

Project Code Project Name

TRA-N-285 3rd IP between Portugal and Spain (pipeline Cantanhede-Mangualde)

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Cantanhede Compressor Station	Second Step of the 3RD Interconnection Point (IP) between Portugal and Spain.			12	0
Total				12	

Fulfilled Criteria			
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability		
Specific Criteria Fulfilled Comments	The project increases the security of supply in the Portuguese gas system and guarantees the fulfilment of the N-1 criterion of the Regulation N° 994/2010. It facilitates the integration of the Portuguese market at Iberian and European level, improving competition and providing shippers with access to alternative balancing gas enhancing transmission fluidity. It also contributes to the European gas sources diversification, as pointed out in the EC COM (2904)330 European Energy Security Strategy. At the moment, Portuguese NG system has lower diversification indexes measured both on capacity and on supply sources, than most of the European countries. The assessment carried out by the Commission on the selection process for the second List of PCI, identified a high and balanced contribution of the project, between the criterions' of the Regulation n° 347/2013: market integration, security of supply and competition.		

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP 4 years

Delay Explanation This phase of the project is dependent on the 1st phase of the 3rd IP PT-ES (pipeline Celorico-Spanish border).

Expected Gas Sourcing

Norway, Russia, LNG ()

	Benefits Programme Control of the Co
Main Driver	Market Demand
Main Driver Explanation	Despite the mentioned start up dates of both the third and the fourth phases of the 3rd interconnection between Portugal and Spain, it should be noticed their planning shall be adjusted according to the real evolution of gas demand and market development in the Iberian Peninsula.
Benefit Description	This PCI will contribute to the implementation of the internal energy market and it will also bring other benefits, particularly: increase NG market liquidity between Portugal and Spain systems, by providing new infrastructure access alternatives to market players in the Iberian Peninsula; Reinforce the security of supply in case of failure in any one of the two gas systems, given the total reversibility of the new interconnection; Allow operational integration between the underground storage facilities of Carriço (Portugal) and Yela (Spain), by increasing storage capacity accessibility between both gas systems; Increase the flexibility and support of gas infrastructure to gas fired power generation in both countries; Step towards the integration of the European gas infrastructures in the context of the Gas Regional Initiative – South, by providing increased interconnection capacity and diversification of supply sources on an Internal Gas Market perspective.
	Barriers
Barrier Type	Description
Regulatory	In simple terms and according to the current Portuguese regulation, the revenue stream respecting the part of the project allocated to Portuguese consumers (after the CBCA decision by the regulators of Portugal and Spain) will be obtained by the remuneration of the net invested capital of the project plus the amortization recovery and the opex cost recovery (subject to a mix of price cap and revenue cap regimes). Nevertheless, it's important to notice that it is not possible to predict if, when and to what extent any changes to this model may occur.
Market	Regarding the market survey, the 3rd interconnection between the gas systems of Portugal and Spain is regarded as commercially non-viable as has been demonstrated by the responses of the stakeholders to the public consultation process on the gas sector TYNDP for Portugal held in 2015 in what concerns this specific project, meaning that its potential users are not willing to make any prior commitments in terms of capacity booking.
Market	Lack of market support

Intergovernmental Agreements				
Agreement	Agreement Description	Is Signed	Agreement Signature Date	
Lisbon Declaration	European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Yes	27/07/2018	
Madrid Declaration	European Comission, Portugal, France and Spain	Yes	04/03/2015	

CBCA			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not		
Submissin Date			
Decision Date			
Website			
Countries Affected			
Countries Net Cost Bearer			
Additional Comments			

Financial Assistance		
Applied for CEF	(3) No, we have not applied for CEF	
Grants for studies	No	
Grants for studies amount		
Grants for works	No	
Grants for works amount		
Intention to apply for CEF	No decision yet taken	
Other Financial Assistance	No	
Comments		
General Comments		

3rd IP between Portugal and Spain (pipeline Cantanhede-Mangualde)

TRA-N-285	Project	Pipeline including CS	Non-FID
Update Date	09/11/2018		Non-Advanced
Description	TThe 3RD Interconnection Point (IP) PORTUGAL-SPAIN is located in the priority corri Spain by crossing the border between both Member States. This project corresponds to a second pipeline parallel to the already existing pipeline		d involves Portugal and
PRJ Code - PRJ Name	PRJ-G-036 - Interconnection ES-PT (3rd interconnection)		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
A TOTAL CONTRACTOR	REN - Gasodutos, S.A.	2028	PT	ES	29.0 GWh/d	
VID IDEDICO	Comment: Second Step of the 3RD Interconnection Point between Portugal and Spain.					
VIP IBERICO	REN - Gasodutos, S.A.	2028	ES	PT	32.0 GWh/d	
	Comment: Second Step of the 3RD Interconnection Point between Portugal and Spain.					

Sponsors			General Information	NDP and PO	CI Information
REN Gasodutos	100%	Promoter	REN-Gasodutos, S.A.	Part of NDP	Yes (PDIRGN 2017)
		Operator	REN - Gasodutos, S.A.	NDP Number	-
		Host Country	Portugal	NDP Release Date	
		Status	Planned	NDP Website	NDP URL
		Website	<u>Project's URL</u>	Currently PCI	Yes (5.4.2.)
				Priority Corridor(s)	NSIW

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

3		
Third-Party Access Regime		
Considered TPA Regime	Regulated	
Considered Tariff Regime	Regulated	
Applied for Exemption	No	
Exemption Granted	No	
Exemption in entry direction	0.00%	
Exemption in exit direction	0.00%	
•		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Pipeline Cantanhede-Mangualde	Second Step of the 3RD Interconnection Point between Portugal and Spain.	500	67		0
	Total		67		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
	The project increases the security of supply in the Portuguese gas system and guarantees the fulfilment of the N-1 criterion of the Regulation N° 994/2010. It facilitates the integration of the Portuguese market at Iberian and European level, improving competition and providing shippers with access to alternative balancing gas enhancing transmission fluidity. It also contributes to the European gas sources diversification,
Specific Criteria Fulfilled Comments	as pointed out in the EC COM (2904)330 European Energy Security Strategy. At the moment, Portuguese NG system has lower diversification indexes measured both on capacity and on supply sources, than most of the European countries. The assessment carried out by the Commission on the selection process for the second List of PCI, identified a high and balanced contribution of the project, between the criterions' of the Regulation no 347/2013: market integration, security of supply and competition.

	Time Schedule
Grant Obtention Date	
Delay Since Last TYNDP	2 years
Delay Explanation	This phase of the project is dependent on the 1st phase of the 3rd IP PT-ES (pipeline Celorico-Spanish border).

Expected Gas Sourcing

Norway, Russia, LNG ()

	Benefits			
Main Driver	Market Demand			
Main Driver Explanation	Despite the mentioned start up dates of both the third and the fourth phases of the 3rd interconnection between their planning shall be adjusted according to the real evolution of gas demand and market development in the lbe	_	•	
Benefit Description	This PCI will contribute to the implementation of the internal energy market and it will also bring other benefits, post-between Portugal and Spain systems, by providing new infrastructure access alternatives to market players in the I of supply in case of failure in any one of the two gas systems, given the total reversibility of the new interconnection between the underground storage facilities of Carriço (Portugal) and Yela (Spain), by increasing storage capacity a Increase the flexibility and support of gas infrastructure to gas fired power generation in both countries; Step toward infrastructures in the context of the Gas Regional Initiative – South, by providing increased interconnection capacity on an Internal Gas Market perspective.	berian Penin on; Allow ope ccessibility boards the integ	sula; Reinforce the security erational integration etween both gas systems; gration of the European gas	
	Barriers			
Barrier Type	Description			
Regulatory	In simple terms and according to the current Portuguese regulation, the revenue stream respecting the part of the consumers (after the CBCA decision by the regulators of Portugal and Spain) will be obtained by the remuneration project plus the amortization recovery and the opex cost recovery (subject to a mix of price cap and revenue cap renotice that it is not possible to predict if, when and to what extent any changes to this model may occur.	of the net in	vested capital of the	
Market	Regarding the market survey, the 3rd interconnection between the gas systems of Portugal and Spain is regarded demonstrated by the responses of the stakeholders to the public consultation process on the gas sector TYNDP for this specific project, meaning that its potential users are not willing to make any prior commitments in terms of call	r Portugal he	eld in 2015 in what concerns	
	Intergovernmental Agreements			
Agreement	Agreement Description	Is Signed	Agreement Signature Dat	
Madrid Declaration	European Comission, Portugal, France and Spain	Yes	04/03/2015	
Lisbon Declaration	European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Yes	27/07/2018	

CBCA		
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	
	not	
Submissin Date		
Decision Date		
Website		
Countries Affected		
Countries Net Cost Bearer		
Additional Comments		

Financial Assistance		
Applied for CEF	(3) No, we have not applied for CEF	
Grants for studies	No	
Grants for studies amount		
Grants for works	No	
Grants for works amount		
Intention to apply for CEF	No decision yet taken	
Other Financial Assistance	No	
Comments		
General Comments		

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

TRA-N-283	Project Pipeline including CS		Non-FID
Update Date	09/11/2018		Advanced
Description	The 3RD Interconnection Point (IP) PORTUGAL-SPAIN is located in the priority corridor No Spain by crossing the border between both Member States. This project will connect both gas systems between Celorico da Beira (Portugal) and Span This project enables the projects TRA-N- 284 3rd IP between Portugal and Spain (Compressor Spain (pipeline Cantanhede-Mangualde) and TRA-N-320 Carregado Compressor Station.	ish border, through a pipeline with essor Station), TRA-N-285 3rd IP bet	162 km of length.
PRJ Code - PRJ Name	PRJ-G-036 - Interconnection ES-PT (3rd interconnection)		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
VIP IBERICO	REN - Gasodutos, S.A.	2024	PT	ES	70.0 GWh/d	
	Comment: First S	Comment: First Step of the 3RD Interconnection Point (IP) PORTUGAL-SPAIN.				
	REN - Gasodutos, S.A.	2024	ES	PT	85.0 GWh/d	
	Comment: First S	Step of the 3RD Inter	connection Point (IP)	PORTUGAL-SPAIN.		

Sponsors		General Information		NDP and PCI Information	
REN Gasodutos	100%	Promoter	REN-Gasodutos, S.A.	Part of NDP	Yes (PDIRGN 2017)
		Operator	REN - Gasodutos, S.A.	NDP Number	-
		Host Country	Portugal	NDP Release Date	
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website	<u>Project's URL</u>	Currently PCI	Yes (5.4.1)
				Priority Corridor(s)	NSIW

Current TYND	P :	TYNDP	2018	FINAL	- Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2014
Feasibility	01/2015	03/2015
FEED	07/2015	
Permitting		
Supply Contracts		
FID		
Construction		12/2022
Commissioning	2024	2024

Regulated
Regulated
No
No
0.00%
0.00%

Enabled Projects

Project Code	Project Name
TRA-N-320	Carregado Compressor Station
TRA-N-284	3rd IP between Portugal and Spain (Compressor Station)
TRA-N-285	3rd IP between Portugal and Spain (pipeline Cantanhede-Mangualde)

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Celorico-Spanish border	First Step of the 3RD Interconnection Point (IP) PORTUGAL-SPAIN.	700	162		0
	Total		162		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability

The project increases the security of supply in the Portuguese gas system and guarantees the fulfilment of the N-1 criterion of the Regulation N° 994/2010. It facilitates the integration of the Portuguese market at Iberian and European level, improving competition and providing shippers with access to alternative balancing gas enhancing transmission fluidity. It also contributes to the European gas sources diversification, as pointed out in the EC COM (2904)330 European Energy Security Strategy. At the moment, Portuguese NG system has lower diversification indexes measured both on capacity and on supply sources, than most of the European countries. The assessment carried out by the Commission on the selection process for the second List of PCI, identified a high and balanced contribution of the project, between the criterions' of the Regulation n° 347/2013: market integration, security of supply and competition.

Time Schedule			_			
	lır	ne	Sc	'he	dп	Ie.

Grant Obtention Date 14/07/2015 Delay Since Last TYNDP

Delay Explanation

3 years

In the last edition of the TYNDP, REN was in the permitting process phase, waiting for the Environmental Impact Declaration to be issued by the Competent Authorities. At this moment, REN already received the declaration with a unfavorable decision. As a consequence, it will be necessary to make an adjustment to the initial route, maintaining the same point of interconnection with Spain. Furthermore, the project of the 3rd Interconnection between Portugal and Spain was rescheduled due to the activities that are being developed in the High Level Group for the development of the interconnections between France, Spain and Portugal. It's important to notice that the Portuguese project has its

decision dependent on the STEP project's decision.

Expected Gas Sourcing

Norway, Russia, Other LNG sources from the diversification of supply are expected, namely from the result of the integration of the Iberian m

	Benefits
Main Driver	Market Demand
Main Driver Explanation	Despite the mentioned start up dates of both the third and the fourth phases of the 3rd interconnection between Portugal and Spain, it should be noticed their planning shall be adjusted according to the real evolution of gas demand and market development in the Iberian Peninsula.
Benefit Description	This PCI will contribute to the implementation of the internal energy market and it will also bring other benefits, particularly: increase NG market liquidity between Portugal and Spain systems, by providing new infrastructure access alternatives to market players in the Iberian Peninsula; Reinforce the security of supply in case of failure in any one of the two gas systems, given the total reversibility of the new interconnection; Allow operational integration between the underground storage facilities of Carriço (Portugal) and Yela (Spain), by increasing storage capacity accessibility between both gas systems; Increase the flexibility and support of gas infrastructure to gas fired power generation in both countries; Step towards the integration of the European gas infrastructures in the context of the Gas Regional Initiative – South, by providing increased interconnection capacity and diversification of supply sources on an Internal Gas Market perspective.

	Barriers
Barrier Type	Description
Regulatory	In simple terms and according to the current Portuguese regulation, the revenue stream respecting the part of the project allocated to Portuguese consumers (after the CBCA decision by the regulators of Portugal and Spain) will be obtained by the remuneration of the net invested capital of the project plus the amortization recovery and the opex cost recovery (subject to a mix of price cap and revenue cap regimes). Nevertheless, it's important to notice that it is not possible to predict if, when and to what extent any changes to this model may occur.
Permit Granting	REN submitted the project of the 3rd IP PT-ES to the Environmenatl Impact Assessment on February 2016. Two years later, on February 2018, REN received from APA - Agência Portuguesa do Ambiente (Competent Environmental Authority), the Environmental Impact Declaration with unfavorable decision. As a consequence, it will be necessary to make an adjustment to the initial route, maintaining the same point of interconnection with Spain.
Market	Regarding the market survey, the 3rd interconnection between the gas systems of Portugal and Spain is regarded as commercially non-viable as has been demonstrated by the responses of the stakeholders to the public consultation process on the gas sector TYNDP for Portugal held in 2015 in what concerns this specific project, meaning that its potential users are not willing to make any prior commitments in terms of capacity booking.

Intergovernmental Agreements					
Agreement	Agreement Description	Is Signed	Agreement Signature Date		
Lisbon Declaration	European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Yes	27/07/2018		
Madrid Declaration	European Comission, Portugal, France and Spain	Yes	04/03/2015		

	CBCA
Decision	No, we have not submitted an investment request yet, but we do plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Beare	r
Additional Comments	

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

South Transit East Pyrenees (STEP) - ENAGAS

TRA-N-161	Project	Pipeline including CS	Non-FID
Update Date	09/11/201	8	Advanced
Description	This project consists of (Spain, Enagas zone) - A pipeline from Hostalrich to Figueras - A pipeline from Figueras to French Border - A compressor station in Martorell		
PRJ Code - PRJ Name	PRJ-G-039 - STEP (South Transit East Pyrenees)		

Point	Operator	Year	From Gas System	To Gas System	Capacity	
	Enagas Transporte S.A.U.	2022	IB-FR4	ES	110.0 GWh/d	
VIP PIRINEOS	Comment: These are the capacities obtained from the subsequent probabilistic study developed by Enagás. For further explanations, see the comment on the project for the current publication.					
VIP PIRINEOS	Enagas Transporte S.A.U.	2022	ES	IB-FR4	120.0 GWh/c	
	Comment: These are the capacities by Enagás. For further explanations		, ,	,		

Sponsors		General Information		NDP and PCI Information	
CS Martorell		Promoter	Enagás Transporte, S.A.U.	Part of NDP	Yes (Conexión internacional con Francia
Enagas Transporte, S.A.U.	100%	Operator	Enagas Transporte S.A.U.		por Cataluña)
Figueras - French Border		Host Country	Spain	NDP Number	No code in the NDP
	1009/	Status	Planned	NDP Release Date	01/05/2008
Enagas Transporte, S.A.U.	100%	Website	Project's URL	NDP Website	NDP URL
Hostalrich - Figueras				Currently PCI	Yes (5.5.1)
Enagas Transporte, S.A.U.	100%			Priority Corridor(s)	NSIW

Current	t TYNDP	: TYNDP	2018	FINAL -	· Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		01/2009
Feasibility	01/2009	01/2009
FEED	01/2016	12/2016
Permitting	05/2019	11/2020
Supply Contracts		
FID		06/2019
Construction	04/2021	12/2022
Commissioning	2022	2022

		9
	Third-Party Access Re	egime
Considered TP	A Regime	Regulated
Considered Ta	riff Regime	Regulated
Applied for Exe	emption	No
Exemption Gra	nted	No
Exemption in 6	entry direction	0.00%
Exemption in 6	exit direction	0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Martorell	Date of Comissioning: December 2022			36	0
Hostalrich - Figueras	Date of Comissioning: December 2022	900	79		0
Pipeline Figueras - French Border	Date of Comissioning: December 2022	900	28		0
	Total		107	36	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability

In the context of the High Level Group for Interconnections in South-West Europe, the European Commission gave the mandate to Pöyry to Specific Criteria Fulfilled Comments produce a Project Specific CBA for STEP project. This CBA has been complemented with additional studies, carried out by Frontier, TIGF and Enagás. STEP provides benefits, among others, such as Security of Supply, increased liquidity and increased market competition.

		Time Schedule
Grant Obtention Date	25/01/2018	
Delay Since Last TYNDP	1 year	
Delay Explanation		

Expected Gas Sourcing

Algeria, LNG ()

	Benefits				
Main Driver	Others				
Main Driver Explanation	This project was part of the "Iberian-French corridor-Eastern Axis-Midcat Project" which was included in the 2nd PCI list (adopted by the European Commission the 18th of November 2015), and was seleected as PCI in 2017 (adopted by the European Commission the 24th November 2017). This project will clearly improve the integration of the Iberian Peninsula with the rest of EU reducing its isolation from the EU gas markets, and helping to the price convergence of Iberian and EU gas markets.				
Benefit Description	According to the conclusions of the study developed by Ramboll, requested by the European Commission withir Interconnections for South-West Europe, MidCat is justified as it will integrate the Iberian gas market with the reconcluded that a stepwise implementation of the interconnector is possible, when accepting that mostly interrur first stage.	st of the EU. In	this study, it is also		
	Barriers				
Barrier Type	Description				
Regulatory	In 2010, Enagás, TIGF and GRTgaz carried out an OS to ask for binding commitments for capacities provided by North-South link. Concerning MidCat, none of the three proposed infrastructure scenarios received enough bids latest call made to the market regarding MidCat. However, MidCat has demonstrated benefits in terms of market of supply and diversification of supply. Taking into account that the OS2015 was carried out in a context of econcurrent situation jointly with the new endency in contracting capacity (from long term to short term) well as the foreseen that network users would make enough long-term commitments in order to fully cover the investment.	to be triggere integration (pomic prosperity decrease in gas	d. This OS is currently the rice convergence), security in comparison with the sconsumption, it is not		
Market	In the Open Season launched in 2010 between Spain and France MidCat didn't obtain enough market support .				
Market	Lack of market support				
Regulatory	Low rate of return				
	Intergovernmental Agreements				
Agreement	Agreement Description	Is Signed	Agreement Signature Date		
Lisbon Declaration	European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Yes	27/07/2018		
Madrid Declaration	Commission, France, Portugal and Spain sign High Level Group agreement to break energy barriers	Yes	04/03/2015		

Financial Assistance		CBCA	
(1) Yes, we have applied for CEF and we have received a decision	Applied for CEF	No, we have not submitted an investment request yet, but we do plan to submit it	Decision
Ye	Grants for studies	28/03/2018	Submissin Date
Mln EUR	Grants for studies amount		Decision Date
N	Grants for works		Website
	Grants for works amount		Countries Affected
	Intention to apply for CEF		Countries Net Cost Bearer
N	Other Financial Assistance		Additional Comments
	Comments		
n January 2016, Enagás Transporte SAU received a CEF-E grant for MidCat project to carry out the engineering studies of Martorell compressor station and the engineering studies of the pipeline from Figueras to the French border. These infrastructures are now included within STEP project. In January 2018, Enagás Transporte SAU received a CEF-E grant for studiers for permit granting process of STEP.			
INEA webpage on CEF-E grants for MidCa https://ec.europa.eu/inea/en/connecting-europe facility/cef-energy/projects-by-country/spain/5.5-0054 esfr-s-m-15 List of actions selected for receiving financial assistance under the 2017 CEF Energy Call for Proposals (January 2018	General Comments		
nttps://ec.europa.eu/energy/sites/ener/files/documents/li			
t_of_actions_selected_for_receiving_financial_assistance_			

South Transit East Pyrenees (STEP) - TEREGA

TRA-N-252	Project	Pipeline including CS	Non-FID
Update Date	15/11/2018		Advanced
Description	On the French side, it is composed by a 120 km long pipeline between the french-spa Barbaira, close to Carcassonne.	nish border (near Le Perthus) and the c	compressor station of
PRJ Code - PRJ Name	PRJ-G-039 - STEP (South Transit East Pyrenees)		

Point	Operator	Year	From Gas System	To Gas System	Capacity
VIP PIRINEOS	TERÉGA	2022	IB-FR4	ES	0.0 GWh/d
	Comment: On the French si		ruptible, until 230 GW h, and 180 GWh/d fr	•	
	TERÉGA	2022	ES	IB-FR4	0.0 GWh/d

Sponsors	General II	nformation	NDP ar	nd PCI Information
TEREGA 100%	Promoter	TEREGA	Part of NDP	Yes (2017 TEREGA NDP)
	Operator	TERÉGA	NDP Number	No number
	Host Country	France	NDP Release Date	
	Status	Planned	NDP Website	<u>NDP URL</u>
	Website	<u>Project's URL</u>	Currently PCI	Yes (5.5.1)
			Priority Corridor(s)	NSIW

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2016	01/2017
FEED	01/2016	06/2019
Permitting	02/2019	12/2020
Supply Contracts		
FID		04/2019
Construction	12/2020	10/2022
Commissioning	2022	2022

Regulated
Regulated
No
No
0.00%
0.00%

Pipelines and Compressor Stations		
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissionin (mm) (km) (MW) Year
Pipeline Spanish Border-Barbaira	French side	900 120 0
	Total	120

Fulfilled Criteria		
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability	
	In the context of the High Level Group for Interconnections in South-West Europe, the European Commission gave the mandate to Pöyry to	
Specific Criteria Fulfilled Comments produce a Project Specific CBA for STEP project. This CBA has been complemented with additional studies, carried out by Frontier, TIGF and		
	Enagás. STEP provides benefits, among others, such as Security of Supply, increased liquidity and increased market competition.	

		Time Schedule
Grant Obtention Date	19/01/2016	
Delay Since Last TYNDP		
Delay Explanation		
		Expected Gas Sourcing

Algeria, LNG ()

-			œ.	
Кι	ın	$\mathbf{\Delta}$	т	٠ς

Main Driver

Others

The project aims at lifting the isolation of the iberian peninsula and create market integration. The project can also be seen as a security of supply tool at Main Driver Explanation european level as it reduces the dependance to russian gas, and creat access to LNG terminals in Spain and Algerian gas. Local security of supply can also be considered.

Benefit Description

นว	rri		rc
Ba		LH	

Barrier Type

Description

Political

French regulator questions the interest of the project and request a cost / benefit analysys before taking any decision

Market

Lack of market support

Interd	overnmenta	l Ac	reements
11110010	Overminenta		11 CCITICITES

Agreement

Agreement Description

Is Signed Agreement Signature Date

Lisbon Declaration

European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.

27/07/2018

Madrid Declaration

Energy Interconnections Links Summit

Yes 04/03/2015

CBCA

Decision

No, we have not submitted an investment request yet,

but we do plan to submit it

09/04/2018

Submissin Date **Decision Date**

Website

Countries Affected

Countries Net Cost Bearer

Additional Comments

Financial Assistance

Applied for CEF

(1) Yes, we have applied for CEF and we have received a

Yes

decision

Yes

No

Grants for studies

Grants for works

Mln EUR 0

Grants for studies amount

Yes

Grants for works amount

Intention to apply for CEF

Other Financial Assistance

Comments

General Comments

Eastring - Bulgaria

TRA-N-654	Project	Pipeline including CS	Non-FID
Update Date	14/09/2018		Non-Advanced
Description	Eastring-BG is subproject located in Bulgaria and is essential part of the Eastring project - a brand new pipeline project, which connects IP Veľk Kapušany / Veľké Zlievce in the territory of Slovakia with a new IP at an external border of the EU in the territory of Bulgaria (Black Sea coast or Turkey). The project would (i) secure supplies in case of RU disruption and therefore it will increase gas SoS in the broader Central-South-East E region, (ii) allow access to alternative gas sources for Central, Western & Southern Europe and (iii) mean step towards EU single gas market.		(Black Sea coast or entral-South-East EU
PRJ Code - PRJ Name	J Code - PRJ Name PRJ-G-041 - Pipeline system from Bulgaria via Romania and Hungary to Slovakia [currently known as "Eastring"		

Point	Operator	Year	From Gas System	To Gas System	Capacity
	Bulgartransgaz EAD	2023	BGn	BG/EAR	200.0 GWh/d
Factoring BC Days actic Paint	Comment: ntry/Exit capacity at d all Exit capacities from domestic sy				
Eastring BG Domestic Point	Bulgartransgaz EAD	2023	BG/EAR	BGn	200.0 GWh/d
	Comment: Entry/Exit capacity at domestic points may go up to the level of 200 GWh/d if sum of all Exit capacities from domestic system to adjacent networks (or vice versa) is able to reach this level.				
	Bulgartransgaz EAD	2023	BG/EAR	RO/EAR	570.0 GWh/d
	Comment: Phase 1 New IP, New capacity increment from Q4 2028 to the level of 1140 GWh/d				
	Bulgartransgaz EAD	2023	RO/EAR	BG/EAR	570.0 GWh/d
Eastring Cross Parder PC/EAD (> DO/EAD	Comment: Phase I New IP, New capacity increment from Q4 2028 to the level of 1140 GWh/d				
Eastring Cross-Border BG/EAR <> RO/EAR	Bulgartransgaz EAD	2028	BG/EAR	RO/EAR	570.0 GWh/d
				Comment: Phase II	
	Bulgartransgaz EAD	2028	RO/EAR	BG/EAR	570.0 GWh/d
				Comment: Phase II	
	Bulgartransgaz EAD	2023	BG/EAR	TRe	570.0 GWh/d
Eastring Cross-Border BG/EAR>TR	Comment: Transmission betwee New	0 0	and Turkey via new II rom Q4 2028 to the le		

01/2021

2023

Construction

Commissioning

09/2023

2028

0.00%

Exemption in exit direction

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Eastring-BG-2	Data refers to the first stage - capacity 570 GWh/d, in case of increase of capacity up to 1140 GWh/d in 2028, compressor power at level of 374 MW will be needed	1,400	257	88	0
	Total		257	88	

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply, Sustainability

The Project is located in one of the least developed gas market regions. The Project meets criteria of one of the pillars of the Energy Union. Specific Criteria Fulfilled Comments Based on the latest stress tests it is one of the most vulnerable region regarding the SoS. The Project will enhance overall development of the region.

Time Schedule

Grant Obtention Date

12/05/2017

Delay Since Last TYNDP

Delay Explanation

Time schedule in the last TYNDP was estimated according to the data from the pre-feasibility study with lower level of details.

Expected Gas Sourcing

Caspian Region, Norway, Russia, LNG (), Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Azerbaijan, Any gas available at Turkish/European HUBs. For dire

		Benefits
Main Driver	Others	

Others

Main Driver Explanation

The project brings significant benefits to the SoS of Europe, bringing the increasing new sources of gas supply in South Eastern Europe to the markets of Central and Western Europe, while further enhancing the market integration of the affected countries.

Benefit Description

- Physical alternative for providing 100% of all Balkan countries' consumption; enhancing market development and liquidity of the region; - Providing security of supply for 100% of all Balkan countries' consumption; - Additional utilization for CZ, SK, PL, UA, RO, BG transit and storage assets; - Providing Western shippers with possibility to supply Balkan countries and even Turkey from NCG/Gaspool/Baumgarten; - Corridor ready for future gas imports to Europe from alternative sources – AGRI, TANAP, Caspian, Iran, Iraq, Egypt, Israel, Cyprus, Turkey, etc. -price convergence of Balkan region to EU West -Decrease of market concentration on producers side

	i A
Intergovernmental	Agreements
intergoverimenta.	71910011101110

Is Signed Agreement Signature Date Agreement **Agreement Description** Governmental declaration Declaration 21/05/2015 No

	CBCA
Decision	No, we have not submitted an investment request yet, but we do plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance		
Applied for CEF	(3) No, we have not applied for CEF	
Grants for studies	No	
Grants for studies amount		
Grants for works	No	
Grants for works amount		
Intention to apply for CEF	Yes, for studies and works	
Other Financial Assistance	No	
Comments	Eustream applied and was granted Financial support for feasibility study execution from CEF.	
General Comments		

Eastring - Hungary

TRA-N-656	Project	Pipeline including CS	Non-FID
Update Date	14/09/2018		Non-Advanced
Description	A Eastring-HU is subproject located in Hungary and is essential part of the East following routing options: via HU, (new pipeline) from RO-HU border (Csenge factor is estimated at 0% by all Project Promoters because of the low project number feasibility study, results of which could be basis for further assessments.	ersima) to HU/SK border (Zemplénagárd). At t	this moment the load
PRJ Code - PRJ Name	PRJ-G-041 - Pipeline system from Bulgaria via Romania and Hungary to Slovak	kia [currently known as "Eastring"	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	FGSZ Ltd.	2023	HU/EAR	SK/EAR	570.0 GWh/d
				Comment: I.phase	
	FGSZ Ltd.	2023	SK/EAR	HU/EAR	570.0 GWh/d
				Comment: I.phase	
	FGSZ Ltd.	2028	HU/EAR	SK/EAR	570.0 GWh/d
			Comr	nent: II.phase; total incremental	
Fastring Cross-Border HII/FAR <> SK/FAR				capacity L+ILphase is	
Eastring Cross-Border HU/EAR <> SK/EAR I.+II.phase is at the level of					
				1140 Gwh/d	
	FGSZ Ltd.	2028	SK/EAR	HU/EAR	570.0 GWh/d
			Comr	nent: II.phase; total incremental capacity I.+II.phase is at the level of 1140 Gwh/d	
	FGSZ Ltd.	2023	HU/EAR	RO/EAR	570.0 GWh/d
Eastring Cross-Border RO/EAR <> HU/EAR				Comment: I.phase	

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		08/2016
Feasibility	09/2017	06/2018
FEED	10/2018	02/2020
Permitting	03/2020	12/2020
Supply Contracts		01/2020
FID		
Construction	01/2021	09/2023
Commissioning	2023	2028

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Eastring-HU-1/2	Data refers to the first stage - capacity 570 GWh/d for new route via SK,HU,RO,BG, in case of increase	1,400	112	0	2023
	Total		112	0	

	Tuttilled Citteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
	The Project is located in one of the least developed gas market regions. The Project meets criteria of one of the pillars of the Energy Union. Based on the latest stress tests it is one of the most vulnerable region regarding the SoS. The Project will enhance overall development of the
	region.

	Time Schedule	
Grant Obtention Date	12/05/2017	
Delay Since Last TYND		
Delay Explanation	Time schedule in the last TYNDP was estimated according to the data from the pre-feasibility study with lower level of details.	

Expected Gas Sourcing

Caspian Region, Norway, Russia, LNG (TR), Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Azerbaijan, Any gas available at Turkish/European HUBs. For dire

Main Driver Explanation Central and Western Europe, while further enhancing the market integration of the affected countries. Decrease of market concentration on producers side; price convergence; Decrease of carbon emissions		Benefits		
Main Driver Explanation Central and Western Europe, while further enhancing the market integration of the affected countries. Decrease of market concentration on producers side; price convergence; Decrease of carbon emissions - Physical alternative for providing 100% of all Balkan countries' consumption; - Providing security of supply for 100% of all Balkan countries' consumption; - Additional utilization for CZ, SK, PL, UA, RO, BG transit and storage assets; - Providing Western shippers with possibility to supply Balkan countries and even Turkey from NCG/Gaspool/Baumgarten; - Corridor ready for future gas imports to Europe from alternative sources - TANAP, Caspian, Iran, Iraq,	Main Driver	Others		
Benefit Description - Additional utilization for CZ, SK, PL, UA, RO, BG transit and storage assets; - Providing Western shippers with possibility to supply Balkan countries and even Turkey from NCG/Gaspool/Baumgarten; - Corridor ready for future gas imports to Europe from alternative sources - TANAP, Caspian, Iran, Iraq,	Main Driver Explanation			
	Benefit Description	even Turkey from NCG/Gaspool/Baumgarten; - Corridor ready for future gas imports to Europe from alternative sources - TANAP, Caspian, Iran, Iraq,		

	Barriers
Barrier Type	Description
Regulatory	Capacity quotas
Regulatory	Low rate of return
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

	Intergovernmental Agreements		
Agreement	Agreement Description	Is Signed	Agreement Signature Date
Memorandum of Understanding	Memorandum of Understanding	Yes	30/10/2017
Declaration	Government declaration	No	21/05/2015
Memorandum of Understanding	Memorandum of Understanding	Yes	13/07/2016

	CBCA
Decision	No, we have not submitted an investment request yet, but we do plan to submit i
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

	Financial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	No
Comments	Eustream received 1,000,000 EUR financial support for feasibility study for execution the whole SK-HU-RO-BG route from CEF.
General Comments	

Current TYNDP : TYNDP 2018 FINAL - Annex A Page 192 of 641

Eastring - Romania

TRA-N-655	Project	Pipeline including CS	Non-FID
Update Date	23/03/2018		Non-Advanced
Description	Eastring-RO, located in Romania is an essential part of the Eastring project, which co with IP at the BG/TR border. Eastring is a natural gas pipeline project. It will not own offered to any shipper on non-discriminatory basis respecting all EU rules and laws (gas infrastructure between Slovakia, Hungary, Romania and Bulgaria in a bidirection gas market situation in each of the respective countries. Maximum daily bi-direction (Stage II). The project would secure supplies in case of RU disruption and therefore it will increas will allow access to alternative gas sources for Central, Western & Southern Europ	or sell any natural gas and once available Directives and Regulations). Eastring will all conjunction bringing a new transit por all capacity will be of 20 bcm/year (Stage ase gas SoS in the broader Central-Sout	le, all its capacity will be I connect the existing tential and improving e I) and 40 bcm/year
PRJ Code - PRJ Name	PRJ-G-041 - Pipeline system from Bulgaria via Romania and Hungary to Slovakia [cu	rrently known as "Eastring"	

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Eastring Cross-Border BG/EAR <> RO/EAR	SNTGN Transgaz S.A.	2023	BG/EAR	RO/EAR	570.0 GWh/d
	SNTGN Transgaz S.A.	2023	RO/EAR	BG/EAR	570.0 GWh/d
	SNTGN Transgaz S.A.	2028	BG/EAR	RO/EAR	570.0 GWh/d
	SNTGN Transgaz S.A.	2028	RO/EAR	BG/EAR	570.0 GWh/d
	SNTGN Transgaz S.A.	2023	HU/EAR	RO/EAR	570.0 GWh/d
Footsing Cross Bondon BO/FAD to HILL/FAD	SNTGN Transgaz S.A.	2023	RO/EAR	HU/EAR	570.0 GWh/d
Eastring Cross-Border RO/EAR <> HU/EAR	SNTGN Transgaz S.A.	2028	HU/EAR	RO/EAR	570.0 GWh/d
	SNTGN Transgaz S.A.	2028	RO/EAR	HU/EAR	570.0 GWh/d
Eastring RO Domestic Point	SNTGN Transgaz S.A.	2023	RO	RO/EAR	150.0 GWh/d
	SNTGN Transgaz S.A.	2023	RO/EAR	RO	150.0 GWh/d

Sponsors			G	eneral Information	NDP and PCI Information		
Transgaz S.A.		100%	Promoter	SNTGN Transgaz SA		No ((1) the NDP was prepared at an	
			Operator	SNTGN Transgaz S.A.	Part of NDP	earlier date and the project will be	
			Host Country	Romania	NDP Number	proposed for inclusion in the next NDP)	
			Status	Planned			
			Website	<u>Project's URL</u>	NDP Release Date NDP Website		
					Currently PCI	Yes (6.25.1)	
					Priority Corridor(s)	NSIE	
Schedule	Start Date	End Date			Thire	d-Party Access Regime	
Pre-Feasibility		08/2016			Considered TPA Regin	me Regulated	
Feasibility	09/2017	06/2019			Considered Tariff Reg	gime Regulated	
FEED	10/2018	02/2019			Applied for Exemptio	n <i>No</i>	
Permitting	03/2020	12/2020			Exemption Granted	Not Relevant	
Supply Contracts		01/2020					
FID					Exemption in entry di	rection 0.00%	
Construction	01/2021	09/2023			Exemption in exit dire	ection 0.00%	
Commissioning	2023	2028					

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Eastring-RO-2		1,400	651		2023
	Total		651		

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments Market Integration, SoS, Sustainability, Competition

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP

Delay Explanation

Time schedule in the last TYNDP was estimated according to the data from the pre-feasibility study with lower level of details.

Expected Gas Sourcing

Caspian Region, Norway, Russia, LNG (TR), Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Azerbaijan, Any gas available at Turkish/European HUBs. For dire

	Benefits
Main Driver	Others
Main Driver Explanation	The project brings significant benefits to the SoS of Europe, bringing the increasing new sources of gas supply in South Eastern Europe to the markets of Central and Western Europe, while further enhancing the market integration of the affected countries.
Benefit Description	Physical alternative for providing 100% of all Balkan countries' consumption; - Providing security of supply for 100% of all Balkan countries' consumption; - Additional utilization for CZ, SK, PL, UA, RO, BG transit and storage assets; - Providing Western shippers with possibility to supply Balkan countries and even Turkey from NCG/Gaspool/Baumgarten; - Corridor ready for future gas imports to Europe from alternative sources – AGRI, TANAP, Caspian, Iran, Iraq, Egypt, Israel, Cyprus, Turkey, etc.

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

F	inancial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	No
Comments	
General Comments	

Eastring - Slovakia

TRA-N-628	Project Pipeline including CS		Non-FID
Update Date	14/09/2018		Advanced
Description	Eastring-SK is subproject located in Slovakia and is essential part of the Eastring pro- Kapušany / Veľké Zlievce in the territory of Slovakia with a new IP at an external bor- Turkey). The project would (i) secure supplies in case of RU disruption and therefore region, (ii) allow access to alternative gas sources for Central, Western & Southern E	der of the EU in the territory of Bulgaria (I it will increase gas SoS in the broader Ce	Black Sea coast or entral-South-East EU
PRJ Code - PRJ Name	PRJ-G-041 - Pipeline system from Bulgaria via Romania and Hungary to Slovakia [cu	rrently known as "Eastring"	

Point	Operator	Year	From Gas System	To Gas System	Capacity		
	Eastring B.V.	2023	HU/EAR	SK/EAR	570.0 GWh/d		
				Comment: I.phase			
	Eastring B.V.	2023	SK/EAR	HU/EAR	570.0 GWh/d		
Factoring Cross Bondon IIII/FAD (2) SV/FAD		Comment: I.phase					
astring Cross-Border HU/EAR <> SK/EAR	Eastring B.V.	2028	HU/EAR	SK/EAR	570.0 GWh/d		
	Comment: II.phase; total incremental capacity I.+II.phase is at the level of 1140 Gwh/d						
	Eastring B.V.	2028	SK/EAR	HU/EAR	570.0 GWh/d		
	Comment: II.phase; total incremental capacity I.+II.phase is at the level of 1140 Gwh/d						
	Eastring B.V.	2023	SK	SK/EAR	570.0 GWh/d		
	Comment: I.phase; Connec	tion of Eastring - SK to e	existing SK transmissio	on system at Veľké Kapušany IP (VK)			
	Eastring B.V.	2023	SK/EAR	SK	570.0 GWh/d		
Eastring SK/EAR <-> Veľké Kapušany	Comment: I.phase; Connec	tion of Eastring - SK to e	existing SK transmissio	on system at Veľké Kapušany IP (VK)			
	Eastring B.V.	2028	SK	SK/EAR	570.0 GWh/d		
	Comment: II.phase; total incremental capacity I.+II.phase is at the level of 1140 Gwh/d						
	Eastring B.V.	2028	SK/EAR	SK	570.0 GWh/d		

Eastring SK/EAR <-> Veľké Kapušany

Comment: II.phase, Connection of Eastring - SK to existing SK transmission system at Veľké Kapušany IP (VK), New capacity increment I.+II phase (from 4Q 2028) to the level of 1140 GWh/d.

Sponsors				General Information	NDP	NDP and PCI Information	
Eastring B.V.		100%	Promoter	eustream, a.s. (a joint stock company)	Part of NDP	Yes (National Development Plan 2018- 2027)	
			Operator	eustream, a.s.	NDP Number	4.1.1.3. Eastring	
			Host Country	Slovakia	NDP Release Date	30/11/2017	
			Status	Planned	NDP Website	NDP URL	
			Website	<u>Project's URL</u>	Currently PCI	Yes (6.25.1)	
					Priority Corridor(s)	NSIE	
Schedule	Start Date	End Date			Third-	Party Access Regime	
Pre-Feasibility		08/2016			Considered TPA Regim	e Regulated	
Feasibility	09/2017	06/2018			Considered Tariff Regin	me Regulated	
FEED	10/2018	02/2020			Applied for Exemption	No	
Permitting	03/2020	12/2020			Exemption Granted	Not Relevant	
Supply Contracts		01/2020					
FID					Exemption in entry dire	ection 0.00%	
Construction	01/2021	09/2023			Exemption in exit direct	tion 0.00%	
Commissioning	2023	2028					

Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Eastring - SK-2		Data refers to the first stage - capacity 570 GWh/d for new route via SK,HU,RO,BG, in case of increase of capacity up to 1140 GWh/d in 2028, increase of compressor power to the level of 93 MW will be needed	1,400	19	52	2023
	Total			19	52	

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Fulfil	lod.	(ritc	ria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The Project is located in one of the least developed gas market regions. The Project meets criteria of one of the pillars of the Energy Union.

Specific Criteria Fulfilled Comments Based on the latest stress tests it is one of the most vulnerable region regarding the SoS. The Project will enhance overall development of the

region.

Time Schedule

Grant Obtention Date 12/05/2017

Delay Since Last TYNDP no

Delay Explanation Time schedule in the last TYNDP was estimated according to the data from the pre-feasibility study with lower level of details.

Expected Gas Sourcing

Caspian Region, Norway, Russia, LNG (QA,TR,US), Iraq, Iran, Egypt, Israel, Turkmenistan, Kazakhstan, Cyprus, Azerbaijan, Any gas available at Turkish/European HUBs including

	Benefits Benefits
Main Driver	Others
Main Driver Explanation	The project brings significant benefits to the SoS of Europe, bringing the increasing new sources of gas supply in South Eastern Europe to the markets of Central and Western Europe, while further enhancing the market integration of the affected countries. Decrease of market concentration on producers side; price convergence; Decrease of carbon emissions
Benefit Description	- Physical alternative for providing 100% of all Balkan countries' consumption; enhancing market development and liquidity of the region; - Providing security of supply for 100% of all Balkan countries' consumption; - Additional utilization for CZ, SK, PL, UA, RO, BG transit and storage assets; - Providing Western shippers with possibility to supply Balkan countries and even Turkey from NCG/Gaspool/Baumgarten; - Corridor ready for future gas imports to Europe from alternative sources – AGRI, TANAP, Caspian, Iran, Iraq, Egypt, Israel, Cyprus, Turkey, etcprice convergence of Balkan region to EU West - Decrease of market concentration on producers side
	Barriers
Barrier Type	Description
Regulatory	Capacity quotas
Regulatory	Low rate of return
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

	Intergovernmental Agreements		
Agreement	Agreement Description	Is Signed Ag	reement Signature Date
Memorandum of Understanding	Memorandum of Understanding	Yes	13/07/2016
Declaration	Governmental declaration	Yes	21/05/2015
Memorandum of Understanding	Memorandum of Understanding	Yes	30/10/2017

CBCA		Financial Assistance			
Submissin Date		Grants for studies	Yes		
Decision Date		Grants for studies amount	Mln EUR 1		
Website		Grants for works	No		
Countries Affected		Grants for works amount			
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies and works		
Additional Comments		Other Financial Assistance	Yes		
		Comments	Financial support for feasibility study execution from CEF		
		General Comments			

Iberian-French corridor: Eastern Axis - Midcat Project

TRA-N-727	Project	Pipeline including CS	Non-FID
Update Date	09/11/2018		Advanced
Description	MidCat consist of (Spain, Enagas zone), in addition to the infrastructures included in ST the CS in Martorell): - A pipeline (loop) from Castelnou to Villar de Arnedo - A pipeline (loop) form Tivissa to Arbós - New filter in CS Tivissa - A increment in CS Arbós - An increment in CS Zaragoza	EP project (pipeline Hostalrich-Figuer	ras-French border and
PRJ Code - PRJ Name	PRJ-G-044 - MidCat (Iberian-French corridor, Eastern Axis – MidCat project)		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
VIP PIRINEOS	Enagas Transporte S.A.U.	2024	IB-FR4	ES	135.0 GWh/d
	Comment: In 2015 Enagás,TIGF&GRTgaz developed a study to analyse the capacity created by a new IP between FR & ES. Common capacity value would be 230 ES-FR & 160 GWh FR-ES. Capacities on the Spanish side before applying the lesser rule: 230 ES-FR and 245 GWh FR-ES				
	Enagas Transporte S.A.U.	2024	ES	IB-FR4	110.0 GWh/d
	Comment: In 2015 Enagás,TIGF&GRTgaz developed a study to analyse the capacity created by a new IP between FR & ES. Common capacity value would be 230 ES-FR & 160 GWh FR-ES. Capacities on the Spanish side before applying the lesser rule: 230 ES-FR and 245 GWh FR-ES				

Sponsors		General Information NDP and PCI Information		DP and PCI Information	
CS Martorell	Р	Promoter	Enagás Transporte, S.A.U.	Part of NDP	Yes (Conexión internacional con Francia
Enagas Transporte, S.A.U.	100% C	Operator	Enagas Transporte S.A.U.		por Cataluña)
Figueras - French Border	H	Host Country	Spain	NDP Number	No code in the NDP
	100% S	Status	Planned	NDP Release Date	01/05/2008
Enagás Transporte, S.A.U.		Website	Project's URL	NDP Website	NDP URL
Hostalrich - Figueras				Currently PCI	Yes (5.5.2)
Enagás Transporte, S.A.U.	100%			Priority Corridor(s)	NSIW
Loop Castelnou – Villar de Arnedo + CS Zaragoza (increment)					
Enagás Transporte, S.A.U.	100%				

100%

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	01/2008	01/2010
FEED	01/2020	05/2021
Permitting	09/2020	12/2022
Supply Contracts		
FID		05/2021
Construction	01/2023	12/2024
Commissioning	2024	2024

Enagás Transporte, S.A.U.

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Martorell				36	2024
Hostalrich - Figueras		900	79		2024
Loop Castelnou – Villar de Arnedo + CS Zaragoza (increment)		640	214	5	2024
Loop Tivissa – Arbós + CS Tivissa filters + CS Arbós (increment)		740	114	21	2024
Pipeline Figueras - French Border		900	28		2024
Tota	l		435	62	

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

ENTSOG PS-CBA runr for TYNDP 2017 demonstrates visible benefits for MidCat. - For ES and PT, it reduces the dependency on LNG and increases the number of significant supply sources that ES and PT has access to. - For other european countries, it could provide significant access to gas from Algeria, and could increase their ability to benefit from low LNG prices. These benefits are additional to the ones provided by STEP (based on the PS-CBA developed by Poyry, validated within the High Level Group for Interconnections in South West Europe).

Time Schedule

Grant Obtention Date

19/01/2016

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Algeria, LNG ()

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Main Driver

Others

Main Driver Explanation

The "Iberian-French corridor - Eastern Axis - Midcat" was included in the list of Projects of Common Interest (PCI) adopted by the European Commission the 18th of November 2015. This project will clearly improve the integration of the Iberian Peninsula with the rest of Europe reducing its isolation from the European gas markets, and helping to the price convergence of Iberian and European gas markets. Due to the lack of enough interconnection capacity, there is a price differential between Spain and France. This price differential has been steadily maintained since recent years, preventing the Spanish consumers, both domestic and industrial, to access to energy under the same conditions as their European counterparts, causing a loss of competitiveness for the Spanish economy.

Benefit Description

	Barriers
Barrier Type	Description
Regulatory	In 2010, Enagás, TIGF and GRTgaz carried out an OS to ask for binding commitments for capacities provided by MidCat and/or Irún/Biriatou and GRTgaz North-South link. Concerning MidCat, none of the three proposed infrastructure scenarios received enough bids to be triggered. This OS is currently the latest call made to the market regarding MidCat. However, MidCat has demonstrated benefits in terms of market integration (price convergence), security of supply and diversification of supply. Taking into account that the OS2015 was carried out in a context of economic prosperity in comparison with the current situation jointly with the new tendency in contracting capacity (from long term to short term) well as the decrease in gas consumption, it is not foreseen that network users would make enough long-term commitments in order to fully cover the investment. Besides, recent changes in the Spanish regulatory framework would not contribute to have an appropriate rate of return of the investment
Market	In the Open Season launched in 2010 between Spain and France MidCat didn't obtain enough market support.
Market	Lack of market support
Regulatory	Low rate of return

Intergovernmental Agreements				
Agreement	Agreement Description	Is Signed	Agreement Signature Date	
Lisbon Declaration	European Commission, France, Portugal and Spain signed Lisbon Declaration on Friday 27th July at the Second Energy Interconnections summit.	Yes	27/07/2018	
Madrid Declaration	Commission, France, Portugal and Spain sign High Level Group agreement to break energy barriers	Yes	04/03/2015	

urrent TYNDP : TYNDP 20	JIS FINAL - Annex A			Page 203 of 641
	CBCA		Financial Assistance	
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for (CEF and we have received a decision
	not	Grants for studies		Yes
Submissin Date		Grants for studies amount		Mln EUR 0
Decision Date		Grants for works		No
Website		Grants for works amount		
Countries Affected		Intention to apply for CEF		
Countries Net Cost Bearer		Other Financial Assistance		No
Additional Comments		Comments		
		General Comments	studies of Martorell engineering studies of the po- French border. These infras In January 2018, Enagás Trans grant for studiers for perm INEA webpage https://ec.europa.eu/o facility/cef-energy/projects- List of actions selected for re under the 2017 CEF Energy https://ec.europa.eu/energy/sit_of_actions_selected_for_rece	corry out the engineering compressor station and the ipeline from Figueras to the structures are now included within STEP project. porte SAU received a CEF-E at granting process of STEP. on CEF-E grants for MidCat inea/en/connecting-europe-by-country/spain/5.5-0054-esfr-s-m-15 eceiving financial assistance (Call for Proposals (January 2018) ites/ener/files/documents/lis

Development of Transmission Capacity at Slovak-Hungarian interconnector

TRA-N-636	Project	Pipeline including CS	Non-FID
Update Date	21/11/2018		Non-Advanced
Description	Reducing the flow direction switch operation time. Developing the transmission capacity i to non-interruptible (firm) capacity.	n HU>SK and SK>HU direction from	m interruptible capacity
PRJ Code - PRJ Name	PRJ-G-045 - Enhancement of the capacity at SK-HU interconnector		

Point		Operato	or	Year	From Gas System	To Gas System	Capacity
Palassamusmat (IIII) / Valká Zliausa (SV)		MGT Hu	MGT Hungarian Gas Transit Ltd. 20		HUi	SK	102.0 GWh/d
Balassagyarmat (HU) / Velké Zlievce (SK)		MGT Hungarian Gas Transit Ltd. 2		2022	SK	HUi	26.0 GWh/d
Sponsors		General Information		NDP and PCI Information			
Magyar Gáz Tranzit ZRt.	100%	Promoter	Magyar Gáz Tranzit Zrt.	Part o	of NDP Yes	(National Developn	
		Operator	MGT Hungarian Gas Transit Ltd.		311131	10 Year De	evelopment Plan)
		Host Country	Hungary	NDP	Number		TRA-N-636
		Status	Planned	NDP	Release Date		
		Website		NDP	Website		NDP URL
				Curre	ently PCI		Yes (6.2.13)
				Priori	ity Corridor(s)		NSIE

Schedule	Schedule Start Date End Date	
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction	03/2020	03/2022
Commissioning	2022	2022

Enabled Projects

Project Code Project Name

TRA-N-524 Enhancement of Transmission Capacity of Slovak-Hungarian interconnector

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Hungarian section		800	92		0
Slovak section		800	18		0
	Total		110		

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

Expected Gas Sourcing

Benefits Programme Benefits				
Main Driver	Market Demand			
Main Driver Explanation	The transmission capacity in HU>SK direction is changed from interruptible capacity to non-interruptible (firm) capacity.			
Benefit Description	Reducing the flow direction switch operation time.			

CBCA				
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not			
Submissin Date				
Decision Date				
Website				
Countries Affected				
Countries Net Cost Bearer				
Additional Comments				

Financial Assistance			
Applied for CEF	(3) No, we have not applied for CEF		
Grants for studies	No		
Grants for studies amount			
Grants for works	No		
Grants for works amount			
Intention to apply for CEF	Yes, for studies and works		
Other Financial Assistance	No		
Comments			
General Comments			

Enhancement of Transmission Capacity of Slovak-Hungarian interconnector

TRA-N-524	Project Project	Pipeline including CS	Non-FID
Update Date	14/09/2018		Non-Advanced
Description	Enhancement of Exit transmission capacity with 102 GWh/day in HU>SK direction and in SK>HU direction at Balassagyarmat with new compressors on Szada Compressor st be the same in both direction at the Slovak-Hungarian interconnector.		
PRJ Code - PRJ Name	PRJ-G-045 - Enhancement of the capacity at SK-HU interconnector		

Point	Operator	Year	From Gas System	To Gas System	Capacity
Pologogyanat (IIII) / Vollsá Zliguag (CV)	MGT Hungarian Gas Transit Ltd.	2022	HUi	SK	102.0 GWh/d
Balassagyarmat (HU) / Velké Zlievce (SK)	MGT Hungarian Gas Transit Ltd.	2022	SK	HUi	26.0 GWh/d
Wassis MCT / FCC7	MGT Hungarian Gas Transit Ltd.	2022	HU	HUi	102.0 GWh/d
Vecsés MGT / FGSZ	MGT Hungarian Gas Transit Ltd.	2022	HUi	HU	26.0 GWh/d

Sponsors			General Information	N	DP and PCI Information
Magyar Gáz Tranzit Zrt.	100%	Promoter Operator	Magyar Gáz Tranzit Zrt. MGT Hungarian Gas Transit Ltd.	Part of NDP	Yes (National Development Plan- MGT 10 Year Development Plan)
			NDP Number	TRA-N-524 (new nr will be received once project is approved)	
		Status Website	Planned	NDP Release Date	project is approved)
		website		NDP Website	<u>NDP URL</u>
				Currently PCI	Yes (6.2.13)
				Priority Corridor(s)	NSIE

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction	03/2020	03/2022
Commissioning	2022	2022

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Hungarian section		800	92		0
Slovak		800	18		0
	Total		110		

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

Expected Gas Sourcing

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

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Main Driver Market Demand

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

Benefit Description

CBCA			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not		
Submissin Date			
Decision Date			
Website			
Countries Affected			
Countries Net Cost Bearer			
Additional Comments			

Financial Assistance				
Applied for CEF	(3) No, we have not applied for CEF			
Grants for studies	No			
Grants for studies amount				
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	Yes, for studies and works			
Other Financial Assistance	No			
Comments				
General Comments				

Firm transmission capacity increase at the IP Veľké Zlievce

TRA-N-1235	Project	Pipeline including CS	Non-FID
Update Date	15/03/2018		Non-Advanced
Description	Expansion of the capacity at the SK-HU interconnection point developing the trans interruptible capacity to non-interruptible (firm) capacity in order to enhance flexib direction switch operation time, security of gas supplies in the affected countries in as a complementary effect.	ility, interoperability, operational efficienc	y reducing the flow
PRJ Code - PRJ Name	PRJ-G-045 - Enhancement of the capacity at SK-HU interconnector		

Capacity Increments Variant For Modelling					
Variant : Variant SK-1	Pipeline section - Border delivery pressure at current level without Extra Pressure Agreement in force				
Point	Operator	Year	From Gas System	To Gas System	Capacity
Palacca market (IIII) / Valká Zliavca (CV)	eustream, a.s.	2022	HUi	SK	153.0 GWh/d
Balassagyarmat (HU) / Velké Zlievce (SK)	eustream, a.s.	2022	SK	HUi	25.4 GWh/d
Capacity Increments Variant(s) For Information Only					
Variant : Variant SK-2 Pipeline section-Border delivery pressure at current level with Extra Pressure Agreement in force					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Palacca mia mart (IIII) / Vallé 7lianca (CV)	eustream, a.s.	2022	HUi	SK	153.0 GWh/d
Balassagyarmat (HU) / Velké Zlievce (SK)	eustream, a.s.	2022	SK	HUi	25.4 GWh/d

0.00%

0.00%

Sponsors			General Information		NDP and PCI Information		
eustream,a.s.		100%	Promoter	eustream,a.s. (a joint-stock company)	Part of NDP	Yes (National Development Plan 2018 - 2027)	
			Operator	eustream, a.s.	NDP Number	4.1.1.3 Firm transmission capacity	
			Host Country	Slovakia		increase at the IP Veľké Zlievce	
			Status	Planned	NDP Release Date	30/11/2017	
			Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>	
				-	Currently PCI	No	
					Priority Corridor(s)		
Schedule	Start Date	End Date			Thi	rd-Party Access Regime	
Pre-Feasibility					Considered TPA Reg	ime Regulated	
Feasibility					Considered Tariff Re	gime Regulated	
FEED					Applied for Exemption	on No	
Permitting					Exemption Granted	No	
Supply Contracts							

Fulfilled Criteria

Specific Criteria Fulfilled

FID

Construction

Commissioning

Specific Criteria Fulfilled Comments

10/2020

2022

06/2022

2022

Exemption in entry direction

Exemption in exit direction

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Main Driver

Market Demand

Main Driver Explanation

Benefit Description

Increase of interoperability and flexibility of the system between Slovakia and Hungary in order to ensure prerequisite for security of supply enhancement in the region and to increase capacities to the level of the expected market demand.

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

Barriers

Barrier Type

Description

Regulatory

Capacity quotas

Regulatory

Countries Net Cost Bearer **Additional Comments**

Low rate of return

	СВСА
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	

Financ	Financial Assistance					
Applied for CEF	(3) No, we have not applied for CEF					
Grants for studies	No					
Grants for studies amount						
Grants for works	No					
Grants for works amount						
Intention to apply for CEF	Yes, for studies and works					
Other Financial Assistance	No					
Comments						
General Comments						

Romanian-Hungarian reverse flow Hungarian section 1st stage

TRA-F-286	Project	Pipeline including CS	FID
Update Date	29/03/2018		Advanced
Description	A new compressor station at Csanádpalota with 2 units (4.5 MW each) - necessary to c 1.75 bcm/a from and towards Romania.	create pressure conditions for the trans	portation capacity of
PRJ Code - PRJ Name	PRJ-G-047 - RO-HU Transmission Corridor		

Capacity Increment	is variant For Mod	delling						
Point	()/ ()/ ()		Operator		Year	From Gas System	To Gas System	Capacity
Csanadpalota			FGSZ Ltd.		2019	RO	HU	48.9 GWh/d
Sponsors			General Inf	ormation		NDP and	PCI Information	
FGSZ Ltd.	7	100%	Promoter	FGSZ Ltd.	Part o	of NDP	Yes (Hungari	an TYNDP 2016)
	/		Operator	FGSZ Ltd.	NDP	Number		12.1.
			Host Country	Hungary	NDP	Release Date		21/12/2016
			Status	Planned	NDP	Website		NDP URL
			Website	<u>Project's URL</u>	Curre	ently PCI		Yes (6.24.1.1)
					Priori	ty Corridor(s)		NSIE
Schedule	Start Date	End Date				Third-Part	ty Access Regime	
Pre-Feasibility		06/2014			Consi	dered TPA Regime		Regulated
Feasibility	09/2016	07/2017			Consi	dered Tariff Regime		Regulated
FEED	07/2018	10/2018			Applie	ed for Exemption		No
Permitting	07/2018	09/2018			Exem	ption Granted		No
Supply Contracts		12/2018						
FID		06/2017			Exem	ption in entry directio	n	0.00%
Construction	10/2018	12/2019			Exem	ption in exit direction		0.00%
Commissioning	2019	2019						

Pipelines and Compressor Stations				
Pipeline Section	Pipeline Comment	Diameter Length (mm) (km)	Compressor Power (MW)	Comissioning Year
Csanadpalota			9	0
	Total		9	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments The pipeline enables to increase capacity of Csanádpalota (RO>HU) and Csanádpalota (HU>RO).

Time Schedule

Grant Obtention Date

14/10/2015

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Romanian sources and/or other available sources from Bulgaria direction

Benefits

Main Driver

Others

Main Driver Explanation

Benefit Description

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date	06/10/2015	Grants for studies amount	Mln EUR 2
Website		Grants for works	No
Countries Affected	Hungary, Romania	Grants for works amount	
Countries Net Cost Bearer		Intention to apply for CEF	No, we do not plan to apply
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

Romanian-Hungarian reverse flow Hungarian section 2nd stage

TRA-N-377	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Advanced
Description	A third compressor unit (4.5 MW) is needed at Csanádpalota to reach the increased 4.4	bcm/a capacity of the corridor at the	RO/HU border.
PRJ Code - PRJ Name	PRJ-G-047 - RO-HU Transmission Corridor		

Capacity Increments Variant For Modelling							
Point	Operator	Year	From Gas System	To Gas System	Capacity		
Csanadpalota	FGSZ Ltd.	2022	HU	RO	76.5 GWh/d		
	FGSZ Ltd.	2022	RO	HU	76.5 GWh/d		

Sponsors			General Information	NDP and PCI Information	
FGSZ Ltd.	100%	Promoter	FGSZ Ltd.	Part of NDP	Yes (Hungarian TYNDP 2017)
	7	Operator	FGSZ Ltd.	NDP Number	12.1.
		Host Country	Hungary	NDP Release Date	28/12/2017
		Status	Planned	NDP Website	NDP URL
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.24.4.6)
				Priority Corridor(s)	NSIE

Schedule	Start Date	End Date
Pre-Feasibility		06/2014
Feasibility	09/2016	07/2017
FEED	01/2019	01/2020
Permitting	10/2019	04/2020
Supply Contracts		05/2020
FID		03/2019
Construction	05/2020	12/2022
Commissioning	2022	2022

Enabled Projects

Project Code Project Name
TRA-N-123 Városföld CS

TRA-F-286 Romanian-Hungarian reverse flow Hungarian section 1st stage

Pipelines and	Compressor Stations
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Pipeline Section	Pipeline Comment	(mm)	(km)	Compressor Power (MW)	Year
Csanádpalota	+1 Compressor unit 4.5MW Total			4	<u> </u>

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments The pipeline enables to increase capacity of Csanádpalota (RO>HU) and Csanádpalota (HU>RO).

Time Schedule

Grant Obtention Date 08/11/2016

Delay Since Last TYNDP 0

Delay Explanation

Expected Gas Sourcing

Black Sea

		Benefits
Main Driver	Market Demand	
Main Driver Explanati	on	
Benefit Description		

Barriers

Barrier Type Description

Regulatory Low rate of return

	СВСА	Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date		Grants for studies	Yes	
Decision Date	06/10/2015	Grants for studies amount	Mln EUR 2	
Website		Grants for works	No	
Countries Affected	Hungary, Romania	Grants for works amount		
Countries Net Cost Bearer		Intention to apply for CEF	No decision yet taken	
Additional Comments		Other Financial Assistance	No	
		Comments		
		General Comments		

LNG terminal in northern Greece / Alexandroupolis - LNG Section

LNG-N-62	Project	LNG Terminal	Non-FID
Update Date	22/05/2018		Advanced
Description	Please note that this part refers only to LNG section of the Project, i.e. the floating terminal Project is addressed in TRA-N-063. The project consists of an LNG offshore Floating Storage Regasification Unit, a Mooring & connecting the floating unit to the Greek National Natural Gas System at the area of Amf TSO, will build and operate a metering & regulating station. The floating unit, will be stationed in the sea of Thrace, 17.6km SW of Alexandroupolis in nearest shore. It will have up to 170.000m3 LNG storage capacity and a gas send out capacity.	k a Pipeline system (24km Subsea a itriti, 5.5km NE of Alexandroupolis NE Greece, at an offshore distance	and 4km Onshore), where, DESFA, the NNGS of 5.4 n.m. from the
PRJ Code - PRJ Name	PRJ-G-055 - LNG terminal in northern Greece / Alexandroupolis		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Gastrade S.A.	2020	LNG_Tk_GR	GRa	253.1 GWh/d
Alexandropoulis LNG	Comment: Increment available 100% at operation start-up.				
	Gastrade S.A.	2020	GRa	IB-GRk	253.1 GWh/d
Alexandroupolis Amphitriti	Comment: Increment not assessed by ENTSOG: Increment already submitted via the Pipeline project				

Sponsors		Gene	eral Information	NE	OP and PCI Information
LNG-N-062		Promoter	Gastrade S.A.	Part of NDP	No ((5) others - please comment below)
GASTRADE S.A.	100%	Operator	Gastrade S.A.	NDP Number	
TRA-N-063		Host Country	Greece	NDP Release Date	
GASTRADE S.A.	100%	Status	Planned	NDP Website	
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.9.1)
				Priority Corridor(s)	NSIE

Current	TYNDP:	· TYNDP	2018	FINAL -	Annex A

Schedule	Start Date	End Date
Pre-Feasibility		12/2010
Feasibility	01/2014	06/2014
FEED	03/2017	09/2017
Permitting	12/2010	01/2015
Supply Contracts		
FID		11/2018
Construction	12/2018	09/2020
Commissioning	2020	2020

	3
Third-Party Access	Regime
Considered TPA Regime	Not Applicable
Considered Tariff Regime	Regulated
Applied for Exemption	Not Yet
Exemption Granted	Not Yet
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code Project Name

TRA-N-63 LNG terminal in northern Greece / Alexandroupolis - Pipeline Section

Technical Information (LNG)							
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship (bcm/y) (n	Size Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
LNG terminal in northern Greece / Alexandroupolis	Yes LNG terminal	8.3 170	000 22,680,000.00	170,000	The increments correspond to the maximum flowrates	2020	40

- 10		_
- Fillti	llad.	Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Market Integration - Regional (SEE + Serbia + FYROM) and beyond (e.g. Hungary and through across the NSI gas corridor) Security of Supply Specific Criteria Fulfilled Comments through inter alia source and route diversification- Greece, Bulgaria, Serbia, FYROM, Hungary, Ukraine, Turkey Enhances competition in the region by introducing new sources and routes of supply Sustainability - Supports back up to renewables and power to gas

Time Schedule						
Grant Obtention Date	16/04/2015					
Delay Since Last TYNDP	24 months in commissioning date / 30 months delay in FID compare to TYNDP2015 time schedule					
Delay Explanation	Permitting phase completed 1Q2015 and FEED completed in September 2017. Final negotiations with Bulgarian Energy Holding (BEH) and Public Gas Corporation (DEPA) for acquiring stakes in GASTRADE is estimated to be completed by end of April 2018. GASTRADE plans to initiate a Market Test in May 2018 and critical mass terminal use agreements are anticipated by October 2018. Completion of financing agreements and EPC contract awards (subject to FID) required for FID. FID is planned for November 2018. 24 months required from FID to commercial start-up.					

Expected Gas Sourcing

LNG (WO), Multi-sourced supply including new sources (e.g. U.S., East Med, Mozambique)

Comments about the Third-Party Access Regime

To date the Project Promoter has not applied officially for a TPA Exemption. The project promoter has commenced discussions with NRA regarding the procedure for granting TPA Exemption. GASTRADE plans to submit a TPA Exemption request to the NRA in order to release a Market Test in May 2018.

Benefits						
Main Driver	Regulation SoS					
Main Driver Explanation	Main drivers: 1. Expressed requirement for diversification of supply sources and routes for SEE markets (Bulgaria, Serbia, FYROM, Romania, Hungary and Ukraine) enhancing security of supply, competition and pricing options potentially resulting in energy costs reduction creates market / demand opportunities for the project 2. Possible discontinuation of gas flows transmitted through Ukraine to the SEE markets. 3. Regional demand growth					
Benefit Description	LNG terminal in northern Greece will: Secure new natural gas quantities for the supply of the Greek and the SEE markets, hence enhancing security of supply of these markets. Diversify the supply sources and routes in particular with regards to markets with limited supply options (Bulgaria, Serbia, Romania, FYROM, Hungary, Ukraine) and to this extent lift existing isolation with an aim to reduce dependency on Russian gas whilst providing access to multiple sources both existing and new such as US and East Med gas to the markets of SEE. Support the South Corridor project(s) by providing alternative/additional supply quantities when/if required and the interoperability of systems and the creation of a regional gas trading hub. The Project technical design will include provision for LNG-reloading ability for the purpose of supporting LNG bunkering activities or regional distribution of LNG to remote island locations for power generation and other industrial and commercial activities.					

	Barriers
Barrier Type	Description
Regulatory	Tariff levels for the Project should enjoy the same structural regime as the one applied for other competitive regulated infrastructures in the area in order for the Project to be commercially attractive to potential regional offtakers and therefore financially viable. Tariff levels will determine the required financing structure (equity/grant/debt ratios)
Permit Granting	Completed
Political	No political barriers. On the contrary, there is clear and declared Political support for the Project from the impacted Member States and in particular from the governments of Greece, Bulgaria and Serbia. Political stability in the region of the Project's direct influence will support commercial viability of the Project.
Others	Delays in the implementation/start up of new regional gas infrastructures (IGB, IBS) and in the upgrade of existing ones including reverse flow availability. The most critical one is the timing of start-up of the Interconnector Greece-Bulgaria (IGB). Also, availability of capacity in the Greek, Bulgarian and Romanian Transmission Systems and reverse flow capacity in Trans Balkan enabling flows from the Project to Ukraine. Finally, reverse flow functionality to the Turkey-Greece Interconnector will open up the Turkish market to the Project. Regarding Financing: The project received grants for studies (from the 1st CEF Energy Call-August 2014) and will potentially apply for grants for works in a future Call from CEF and the Greek structural programs (NSRF). Award of such Public financing will be critical for the Project's commercial viability.
Market	The markets in SEE are not mature. Currently all gas transactions are done on a bilateral basis and no price transparency exists. Creation of a trading hub in the region with multiple supply options will generate significant opportunities for the marketing of gas imported through the LNG Alexandroupolis floating terminal. Recent interconnection agreements at the border IPs between EU member states in SE Europe are enhancing Project commercialization opportunities.
Financing	The Project has been awarded with grants for studies (CEF 2014 Call). The Project will also apply for grants within the National structural funds (NSRF - National Strategic Reference Framework). Award of such Public financing will be critical for the Project's commercial viability. The company has already signed a Mandate Letter with a major commercial bank of Greece for the total amount of dept. The target is that the terms of the debt financing agreement will be finalized before FID. The debt financing will be determined by contractual agreements regarding capacity reservation at the Project.
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 2
Website		Grants for works	No
Countries Affected		Grants for works amount	
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies only
Additional Comments	CBCA is non applicable for the Project	Other Financial Assistance	No
		Comments General Comments	GASTRADE applied for grants for studies from CEF2017 on 10.10.2017 for a "site specific metocean study". The requested amount was: 207,500 euro. Although the study was sound and complete, it was not selected for funding due to the proposal's mature character.

LNG terminal in northern Greece / Alexandroupolis - Pipeline Section

TRA-N-63	Project Project	Pipeline including CS	Non-FID
Update Date	22/05/2018		Advanced
Description	Please note that this part refers only to the pipeline section of the Project. The Land The project consists of an LNG offshore Floating Storage Regasification Unit, a National Connecting the floating unit to the Greek National Natural Gas System at the are TSO, will build and operate a metering & regulating station. The floating unit, will be stationed in the sea of Thrace, 17.6km SW of Alexandro nearest shore. It will have up to 170.000m3 LNG storage capacity and a gas send	Mooring & a Pipeline system (24km Subsea alea of Amfitriti, 5.5km NE of Alexandroupolis voupolis in NE Greece, at an offshore distance of	nd 4km Onshore), where, DESFA, the NNGS of 5.4 n.m. from the
PRJ Code - PRJ Name	PRJ-G-055 - LNG terminal in northern Greece / Alexandroupolis		

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
Alexandra marilia ING	Gastrade S.A.	2020	LNG_Tk_GR	GRa	253.1 GWh/d	
Alexandropoulis LNG	Comment: Increment not assessed by ENTSOG: Increment already submitted via the LNG project					
Al	Gastrade S.A.	2020	GRa	IB-GRk	253.1 GWh/d	
Alexandroupolis Amphitriti	Comment: Increment available 100% at operation start-up.					
Sponsors	General Information		NDP and	d PCI Information		

Sponsors			General Information	NDP and PCI Information		
LNG-N-062		Promoter	Gastrade S.A.	Part of NDP	No ((5) others - please comment below)	
GASTRADE S.A.	100%	Operator	Gastrade S.A.	NDP Number		
TRA-N-063		Host Country	Greece	NDP Release Date		
GASTRADE S.A.	100%	Status	Planned	NDP Website		
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.9.1)	
				Priority Corridor(s)	NSIE	

Current TYND	P :	TYNDP	2018	FINAL	- Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2010
Feasibility	01/2014	06/2014
FEED	03/2017	09/2017
Permitting	12/2010	01/2015
Supply Contracts		
FID		11/2018
Construction	12/2018	09/2020
Commissioning	2020	2020

<u></u>	- 3
Third-Party Access Regime	•
Considered TPA Regime	Not Applicable
Considered Tariff Regime	Not Applicable
Applied for Exemption	Not Yet
Exemption Granted	Not Yet
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code Project Name

LNG-N-62 LNG terminal in northern Greece / Alexandroupolis - LNG Section

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Alexandroupolis LNG terminal - M/R Amfitriti		762	28	0	2020
	Total		28	0	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Market Integration - Regional (SEE + Serbia + FYROM) and beyond (e.g. Hungary and through across the NSI gas corridor) Security of Supply

Specific Criteria Fulfilled Comments through inter alia source and route diversification- Greece, Bulgaria, Serbia, FYROM, Hungary, Ukraine, Turkey Enhances competition in the

region by introducing new sources and routes of supply Sustainability - Supports back up to renewables and power to gas

	Time Schedule
Grant Obtention Date	16/04/2015
Delay Since Last TYNDP	24 months in commissioning date / 30 months delay in FID compare to TYNDP2015 time schedule
Delay Explanation	Permitting phase completed 1Q2015 and FEED completed in September 2017. Final negotiations with Bulgarian Energy Holding (BEH) and Public Gas Corporation (DEPA) for acquiring stakes in GASTRADE is estimated to be completed by end of April 2018. GASTRADE plans to initiate a Market Test in May 2018 and critical mass terminal use agreements are anticipated by October 2018. Completion of financing agreements and EPC contract awards (subject to FID) required for FID. FID is planned for November 2018. 24 months required from FID to commercial start-up.

Expected Gas Sourcing

LNG (WO), The pipeline will be fed with regasified LNG from the floating unit (LNG-N-062) -hence it means various sources.

Comments about the Third-Party Access Regime

To date the Project Promoter has not applied officially for a TPA Exemption. The project promoter has commenced discussions with NRA regarding the procedure for granting TPA Exemption. GASTRADE plans to submit a TPA Exemption request to the NRA in order to release a Market Test in May 2018.

	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	Main drivers: 1. Expressed requirement for diversification of supply sources and routes for SEE markets (Bulgaria, Serbia, FYROM, Romania, Hungary and Ukraine) enhancing security of supply, competition and pricing options potentially resulting in energy costs reduction creates market / demand opportunities for the project 2. Possible discontinuation of gas flows transmitted through Ukraine to the SEE markets. 3. Regional demand growth
Benefit Description	LNG terminal in northern Greece will: Secure new natural gas quantities for the supply of the Greek and the SEE markets, hence enhancing security of supply of these markets. Diversify the supply sources and routes in particular with regards to markets with limited supply options (Bulgaria, Serbia, Romania, FYROM, Hungary, Ukraine) and to this extent lift existing isolation with an aim to reduce dependency on Russian gas whilst providing access to multiple sources both existing and new such as US and East Med gas to the markets of SEE. Support the South Corridor project(s) by providing alternative/additional supply quantities when/if required and the interoperability of systems and the creation of a regional gas trading hub. The Project technical design will include provision for LNG-reloading ability for the purpose of supporting LNG bunkering activities or regional distribution of LNG to remote island locations for power generation and other industrial and commercial activities.

	Barriers
Barrier Type	Description
Regulatory	Tariff levels for the Project should enjoy the same structural regime as the one applied for other competitive regulated infrastructures in the area in order for the Project to be commercially attractive to potential regional offtakers and therefore financially viable. Tariff levels will determine the required financing structure (equity/grant/debt ratios)
Permit Granting	Completed
Political	No political barriers. On the contrary, there is clear and declared Political support for the Project from the impacted Member States and in particular from the governments of Greece, Bulgaria and Serbia. Political stability in the region of the Project's direct influence will support commercial viability of the Project.
Others	Delays in the implementation/start up of new regional gas infrastructures (IGB, IBS) and in the upgrade of existing ones including reverse flow availability. The most critical one is the timing of start-up of the Interconnector Greece-Bulgaria (IGB). Also, availability of capacity in the Greek, Bulgarian and Romanian Transmission Systems and reverse flow capacity in Trans Balkan enabling flows from the Project to Ukraine. Finally, reverse flow functionality to the Turkey-Greece Interconnector will open up the Turkish market to the Project. Regarding Financing: The project received grants for studies (from the 1st CEF Energy Call-August 2014) and will potentially apply for grants for works in a future Call from CEF and the Greek structural programs (NSRF). Award of such Public financing will be critical for the Project's commercial viability.
Market	The markets in SEE are not mature. Currently all gas transactions are done on a bilateral basis and no price transparency exists. Creation of a trading hub in the region with multiple supply options will generate significant opportunities for the marketing of gas imported through the LNG Alexandroupolis floating terminal. Recent interconnection agreements at the border IPs between EU member states in SE Europe are enhancing Project commercialization opportunities.
Financing	The Project has been awarded with grants for studies (CEF 2014 Call). The Project will also apply for grants within the National structural funds (NSRF - National Strategic Reference Framework). Award of such Public financing will be critical for the Project's commercial viability. The company has already signed a Mandate Letter with a major commercial bank of Greece for the total amount of dept. The target is that the terms of the debt financing agreement will be finalized before FID. The debt financing will be determined by contractual agreements regarding capacity reservation at the Project.
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

	СВСА		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 2
Website		Grants for works	No
Countries Affected		Grants for works amount	
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies only
Additional Comments	CBCA is non applicable for the Project	Other Financial Assistance	No
Additional comments		Comments	GASTRADE applied for grants for studies from CEF2017 on 10.10.2017 for a "site specific metocean study". The requested amount was: 207,500 euro. Although the study was sound and complete, it was not selected for funding due to the proposal's mature character.
		General Comments	

Slovenian-Hungarian interconnector

TRA-N-325	Project	Pipeline including CS	Non-FID
Update Date	02/10/2018		Advanced
Description	Plinovodi, Snam Retegas and FGSZ agreed to create a new bidirectional gas rot transmission route between the three countries.	ute in the region. Main target to ensure a new	bidirectional
PRJ Code - PRJ Name	PRJ-G-060 - Hungary – Slovenia interconnection		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Pince (SI) / Tornyszentmiklos (HU)	FGSZ Ltd.	2022	HU	SI	12.8 GWh/d
				Comment: phase I.	
	FGSZ Ltd.	2022	SI	HU	12.8 GWh/d
				Comment: phase I.	
	FGSZ Ltd.	2023	HU	SI	51.2 GWh/d
		Comment	:: phase II. total capaci	ty up to 64 GWh/d	1
	FGSZ Ltd.	2023	SI	HU	51.2 GWh/d
		Comment	:: phase II. total capaci	ty up to 64 GWh/d	1

Sponsors	General Information		NDP and	PCI Information
FGSZ Ltd. 100%	Promoter	FGSZ Ltd.	Part of NDP	Yes (Hungarian TYNDP 2017)
	Operator	FGSZ Ltd.	NDP Number	12.12.
	Host Country	Hungary	NDP Release Date	28/12/2017
	Status	Planned	NDP Website	NDP URL
	Website	Project's URL	Currently PCI	Yes (6.23)
			Priority Corridor(s)	NSIE

Current	TYNDF) : TYN	IDP 2018	3 FINAL -	 Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2015
Feasibility	05/2016	12/2017
FEED	12/2019	12/2020
Permitting	11/2016	12/2019
Supply Contracts		
FID		07/2019
Construction	01/2020	10/2022
Commissioning	2022	2023

	9
Third-Party Access Re	egime
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Nagykanizsa-Kozármisleny	phase II.	600	150	12	2023
Nagykanizsa-Tornyiszentmiklós	phase I.	600	41		2022
	Total		191	12	

Fulfilled Criteria					
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability				
	Infrastructure to enable reverse flow and to increase diversification of entry points and use of regional storage capacities Increase of flexibility and diversification of routes and gas sources. Infrastructure allowing the increase of security of supply for the region. Price convergence and market integration.				

Grant Obtention Date	
Delay Since Last TYNDP	
Delay Explanation	Time schedule in the last TYNDP was estimated according to the data from the pre-feasibility study with lower level of details. Slower progress of project as planned.

Time Schedule

Expected Gas Sourcing

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

	Benefits
Main Driver	Others
Main Driver Explanati	on
Benefit Description	Infrastructure to enable reverse flow and to increase diversification of entry points and use of regional storage capacities Increase of flexibility and diversification of routes and gas sources. Infrastructure allowing the increase of security of supply for the region. Price convergence and market integration.
	Barriers
Barrier Type	Description
Regulatory	Low rate of return
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

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

R15/1 Pince - Lendava - Kidričevo

TRA-N-112	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Advanced
Description	Interconnector with the transmission system of the Hungarian TSO. Cross-border for Slovenian gas suppliers, enabling access to LNG terminals in northern Adriatic Hungarian and Slovenian gas market and improving of N-1 infrastructure standard PCI 6.23. Hungary – Slovenia interconnection (Nagykanizsa - Tornyiszentmiklós (H	and other gas sources for Hungarian gas sold for SI and HU.	
PRJ Code - PRJ Name	PRJ-G-060 - Hungary – Slovenia interconnection		

Capacity Increments Variant For Modelling						
Point	Operator		Year	From Gas System	To Gas System	Capacity
	Plinovodi d.o.o.		2022	HU	SI	12.8 GWh/d
					Comment: Phase 1	
	Plinovodi d.o.o.		2022	SI	HU	12.8 GWh/d
					Comment: Phase 1	
Pince (SI) / Tornyszentmiklos (HU)	Plinovodi d.o.o.		2023	HU	SI	46.6 GWh/d
					Comment: Phase 2 pacity 59.4 GWh/d.	
	Plinovodi d.o.o.		2023	SI	HU	46.6 GWh/d
					Comment: Phase 2	
				Total ca	pacity 59.4 GWh/d.	
Sponsors	General Information			NDP and	d PCI Information	
Plinovodi 100%	Promoter	Plinovodi d.o.o.	Part of	NDP Ye.	s (TYNDP for the pe	riod 2018-2027,
	Operator	Plinovodi d.o.o.	NDP N	umber		C
	Host Country	Slovenia	NDP Re	elease Date		09/10/2017
	Status	Planned	NDP W	ebsite		NDP URI
	Website	Project's URL	Current	tly PCI		Yes (6.23)
			Priority	Corridor(s)		NSIE

Current	TYNDP	: TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	07/2019	12/2021
Permitting		
Supply Contracts		
FID		07/2019
Construction	10/2020	12/2023
Commissioning	2022	2023

Enabled Projects

TRA-N-92 CS Ajdovščina, 1st phase of upgrade

TRA-N-108 M3 pipeline reconstruction from CS Ajdovščina to Šempeter/Gorizia

Pipelines a	and Compressor Stati	ons

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	r Comissioning Year
R15/1 Pince - Lendava - Kidričevo		500	73	6	0
	Total		73	6	

Fulfilled Criteria

Specific Criteria Fulfilled Market Integration, Security of Supply, Sustainability

The project will enable a new interconnection between Slovenia and Hungary, enabling access to underground storages in Hungary for Specific Criteria Fulfilled Comments

Specific Criteria Fulfilled Comments

Slovenian gas suppliers, enabling access to LNG terminals in northern Adriatic and other gas sources for Hungarian gas suppliers, contributing to the diversification of import sources and routes and the security of supply for both countries. It will enable the connection of Hungarian and

Slovenian gas market and improving of N-1 infrastructure standard for SI and HU.

Expected Gas Sourcing

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

	Ber	efits				
Main Driver	Market Demand					
Main Driver Explanation	Also essential contribution to Security of supply.					
Benefit Description	Cross-border transmission, enabling access to underground storages in Hungary for Slovenian gas suppliers, enabling access to LNG terminals in northern Adriatic and other gas sources for Hungarian gas suppliers, connection of Hungarian and Slovenian gas market and improving of N-1 infrastructure standard for SI and HU.					
	Bar	riers				
Barrier Type	Description					
Permit Granting	Long lasting and complicated procedures of Spatial planning (National Spatial Plan, SEA and EIA procedures, Environmental consent) as well as the procedure of acquiring the Construction permit (long procedures for land acquisition, etc.)					
	Intergovernme	ntal Agreements				
Agreement	Agreement Description		Is Signed Agreement Signature Date			
Memorandum of Unders	standing (MOU)		Yes 27/11/2009			
	СВСА		Financial Assistance			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision			
	not	Grants for studies	Ye			
ubmissin Date		Grants for studies amount	Mln EUR			
Decision Date		Grants for works	N			
		Grants for Works	73			
Vebsite		Grants for works amount	7 **			
Countries Affected	er	Grants for works amount				
Website Countries Affected Countries Net Cost Bear Additional Comments	er	Grants for works amount Intention to apply for CEF	No			

Capacity Increments Variant For Modelling

IAEF - Vlora ccgt

TRA-N-1303	Project	Pipeline including CS	Non-FID
Update Date	15/11/2018		Advanced
Description	The TAP Albania exit point to Vlora CCGT pipeline is the first Priority Project transmission pipeline that will as per your PID: 1. Create the Gas Market in Albania 2. Connect an Anchor client 3. Support intermitent renewables 4. Provide the basis for PiP2 and PiP3 which are of European Relevance as gas from the Southern Gas Corridor will find its way into EU markets via as 5. The work has already started on the FEED	they develop into connections to Montenegro, BiH	
PRJ Code - PRJ Name	-		

Point	Operator		Year From Gas System	To Gas System	Capacity
Fier (AL) / (GR)	Albgaz Sha		2020 AL/TAP	AL	0.0 GWh/d
Sponsors	General Information	tion	NDP an	d PCI Information	
	Promoter	Albgaz Sha	Part of NDP	Yes (Plani 10 Vj	ecar i Zhvillimit)
	Operator	Albgaz Sha	NDP Number		PiP1
	Host Country	Albania	NDP Release Date		15/02/2018
	Status	Planned	NDP Website		NDP URL
	Website	Project's URL	Currently PCI		No
			Priority Corridor(s)		

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		02/2017
Feasibility	03/2017	02/2018
FEED	09/2018	09/2018
Permitting	11/2018	03/2019
Supply Contracts		06/2019
FID		09/2019
Construction	11/2019	11/2020
Commissioning	2020	2020

	3 -		
Third-Party Access Regime			
Considered TPA Regime	Regulated		
Considered Tariff Regime	Regulated		
Applied for Exemption	No		
Exemption Granted	No		
Exemption in entry direction	10.00%		
Exemption in exit direction	10.00%		

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
IAEF - Vlora CCGT		400	40		2020
	Total		40		

Fulfilled Criteria

Specific Criteria Fulfilled

Specific Criteria Fulfilled Comments

Time	Sch	بيامم	امار

Grant Obtention Date

28/01/2016

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Caspian Region, Potential for new gas discoveries by Shell (currently drilling 4th well).

Benefits				
Main Driver	Market Demand			
Main Driver Explanation	The TAP Albania exit point to Vlora CCGT pipeline is the first Priority Project as per the approved Gas Master Plan for Albania. It is a 40km transmission pipeline that will as per your PID: 1. Create the Gas Market in Albania 2. Connect an Anchor client 3. Support intermitent renewables 4. Provide the basis for PiP2 and PiP3 which are of European Relevance. 5. The work has already started on the FEED			
Benefit Description	The TAP Albania exit point to Vlora CCGT pipeline is the first Priority Project as per the approved Gas Master Plan for Albania. It is a 40km transmission pipeline that will as per your PID: 1. Create the Gas Market in Albania 2. Connect an Anchor client 3. Support intermitent renewables 4. Provide the basis for PiP2 and PiP3 which are of European Relevance. 5. The work has already started on the FEED			
Parriers				

Barrier Type	Description
Regulatory	CCGT cooling developments.
Financing	Availability of funds and associated conditions

СВСА		Financial Assistance	
	No, we have submitted an investment request, but not	Applied for CEF	(3) No, we have not applied for CEF
Decision	received a decision yet; #No, we have not submitted an	Grants for studies	No
Culomissis Data	investment request yet, but we do plan to submit it	Grants for studies amount	
Submissin Date	21/03/2018	Grants for works	No
Decision Date		Grants for works amount	
Website	<u>CBCA URL</u>	Intention to apply for CEF	Yes, for studies and works
Countries Affected	Albania	Other Financial Assistance	No
Countries Net Cost Bearer	Albania	Comments	
Additional Comments	We expect a positive decision any day by the National Regulatory Entity (ERE).	General Comments	

GCA 2015/08: Entry/Exit Murfeld

TRA-N-361	Project	Pipeline including CS	Non-FID
Update Date	28/02/2018		Advanced

The Project enables incremental capacity at the IP Murfeld in both directions (AT->SI, SI->AT). Moreover, physical RF capacity at the Entry Point Murfeld is achieved.

PRJ Code - PRJ Name -

Description

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Murfeld (AT) / Ceršak (SI)	Gas Connect Austria GmbH 2022		AT	SI	105.2 GWh/d
	Comment: conversion from Nm³/h to kwh/h with a GCV of 11.19				
	Gas Connect Austria GmbH	2022	SI	AT	166.5 GWh/d
	Comment: conversion from Nm ³ /h to kwh/h with a GCV of 11.19				

Sponsors	General Information NDP and PCI Information		and PCI Information	
	Promoter	GAS CONNECT AUSTRIA GmbH	Part of NDP	Yes (NDP 2018 - 2027)
	Operator	Gas Connect Austria GmbH	NDP Number	GCA 2015/08
	Host Country	Austria	NDP Release Date	19/01/2018
	Status	Planned	NDP Website	<u>NDP URL</u>
	Website	<u>Project's URL</u>	Currently PCI	Yes (6.26.1.4)
			Priority Corridor(s)	NSIE

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting	10/2015	07/2019
Supply Contracts		
FID		
Construction		06/2022
Commissioning	2022	2022

•	9
Third-Party Access Regime	•
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	No
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Murfeld	The technical load factor of the pipeline is confidential and must not be published in the TYNDP.				0

Total

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	This project aims at covering the projected additional demand for capacity at the IP Murfeld entry and exit points. It will enable reverse flow. This strengthens security of supply, competition and market integration. In addition, the project contributes to sustainability.

	Be	nefits
Main Driver	Market Demand	
Main Driver Explanat	on	
Benefit Description		

	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Fina	ncial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No, we do not plan to apply
Other Financial Assistance	No
Comments	
General Comments	

GCA Mosonmagyaróvár

TRA-N-423	Project	Pipeline including CS	Non-FID
Update Date	28/02/2018		Advanced
Description	Current planning based on market indications. Potential connection to new gas	s sources from the Black Sea. Project will enabl	e reverse flow.
PRJ Code - PRJ Name	- /		

Point			Operator		Year	From Gas System	To Gas System	Capacity
Mosonmagyarovar			Gas Conne	ect Austria GmbH	2022	HU	AT	153.1 GWh/d
Sponsors				General Information		NDP and	PCI Information	
			Promoter	GAS CONNECT AUSTRIA GmbH	Part o	of NDP	Yes (N	DP 2018 - 2027)
			Operator	Gas Connect Austria GmbH	NDP	Number		GCA 2015/05
			Host Country	Austria	NDP	Release Date		19/01/2018
			Status	Planned	NDP	Website		NDP URL
			Website	<u>Project's URL</u>	Curre	ently PCI		Yes (6.24.1.3)
					Priori	ty Corridor(s)		NSIE
Schedule	Start Date	End Date				Third-Par	ty Access Regime	
Pre-Feasibility					Consi	dered TPA Regime		Regulated
Feasibility					Consi	dered Tariff Regime		Regulated
FEED					Appli	ed for Exemption		No
Permitting	10/2015	07/2019			Exem	ption Granted		No
Supply Contracts								
FID					Exem	ption in entry directio	n	0.00%
Construction		05/2022			Exem	ption in exit direction		0.00%
Commissioning	2022	2022						

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Mosonmagyarovar	The technical load factor of the pipeline is confidential and must not be published in the TYNDP.				0
	Total				

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

The project allows for the connection to new gas sources from the Black Sea. It will enable reverse flow and increases diversification of routes. This will strengthen market intergration, security of supply and competition. In addition, it contributes favourably to sustainability goals.

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

	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financ	Financial Assistance					
Applied for CEF	(3) No, we have not applied for CEF					
Grants for studies	No					
Grants for studies amount						
Grants for works	No					
Grants for works amount						
Intention to apply for CEF	No, we do not plan to apply					
Other Financial Assistance	No					
Comments						
General Comments						

South Caucasus Pipeline - (Future) Expansion - SCP-(F)X

TRA-F-1138	Project	Pipeline including CS	FID
Update Date	27/03/2018		Advanced
Description	SCP, exporting natural gas from Shah Deniz Phase 1 deposit, became operational expected these volumes will be more or less at the same level in future several yet gas is contracted by BOTAS in Turkey. SCPX is the expansion of SCP, which is made by adding SCPX looping in Azerbaija the existing 248 km), construction of 2 km tie-in with TANAP, increase of power of construction of two new compressor stations in Georgia. SCPX is a part of the Soffor Turkey, 10 bcm/y for TAP System in the EU). SCPFX is the concept of future expansion, but it will also use SCP/SCPX System. Source gas, and of course costs of such FX.	ears, though they are not attributed neither and (new 424 km to the existing 443 km) and of Sangachal terminal compressor station in uthern Gas Corridor for the export of additional compressor station in the export of the e	to SCPX nor SCPFX. SCP I in Georgia (63 km to Azerbaijan and onal 16 bcm/y (6 bcm/y
PRJ Code - PRJ Name	-		

Capacity Increments	Variant For Modelling						
Point		Operato	or	Year	From Gas System	To Gas System	Capacity
Türke 3-0		SOCAR Midstream Operations		2018	AZ/SCP	TR/TNP	464.0 GWh/d
Türkgözü						Comment: SCPX	,
Sponsors			General Information		NDP and	d PCI Information	
ВР	28%	Promoter	SOCAR Midstream Operations	Part c	of NDP /	No ((2) no NDP exis	ts in the country)
TPAO	19%	Tromoter	LLC	NDP	Number		
		Operator	SOCAR Midstream Operations	NDP	Release Date		
SOCAR affiliates	16%	Host Country	Azerbaijan	NDP	Website		
Petronas	15%	Status	In Progress	Curre	ntly PCI		Yes (7.1.1)
NICO	10%	Website	<u>Project's URL</u>	- Priori	ty Corridor(s)		SGC
Lukoil	10%						

Current	TYNDF) : TYN	IDP 2018	3 FINAL -	 Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		04/2010
Feasibility	04/2010	01/2013
FEED	01/2011	01/2012
Permitting	09/2010	04/2014
Supply Contracts		09/2018
FID		12/2013
Construction	01/2014	09/2018
Commissioning	2018	2018

Third-Party Access Regime	
Considered TPA Regime	Negotiated
Considered Tariff Regime	Negotiated
Applied for Exemption	Not Relevant
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
South-Caucasus Pipeline	The duty compressor power of SCP is 6.4 MW. The stand-by compressor power of SCP is also 6.4 MW.	1,067	691	6	2006
	Total		691	6	

Fulfilled Criteria

Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	SCP-(F)X is an integral part of the Sothern Gas Corridor value chain, which connects giant reserves of natural gas of Shah Deniz (1.2 trillion cm) with giant market for natural gas in the EU, in particular in the East and South-East. The consortium of shareholders, mostly International Oil
	Companies, have been contributing their technical experience and resources as well as investments for the project's realizations. The project has a significant political support of involved governments.

	Time S	chedule
Grant Obtention Date		
Delay Since Last TYNDP	6 months	
Delay Explanation		

Expected Gas Sourcing

Caspian Region

Benefits					
Main Driver	Market Demand				
Main Driver Explanation					
Benefit Description					

	Darriers	
Barrier Type	Description	
Political	Each of customers for Azerbaijani gas has the demand of certain volumes. SCP System by itself (within Azerbaijan, Georgia and up to the Turkish border) has enough gas for buyers along its route. It is the setting of the Southern Gas Corridor with new customers in Turkey, EU that requires expansions of SCP Majors buyers are far. Many local requirements and national interests should be considered en route for SCP/Shah Deniz to be profitable. Competitive pipeline route from other regions should also be taken into account. Therefore, the SGC value chain will need further political support from governments	
	and other stakeholders, which will eventually safeguard investments and mitigate risks.	

Others Market uncertainty

Intergovernmental Agreements					
Agreement	Agreement Description	Is Signed	Agreement Signature Date		
Intergovernmental Agreement between Azerbaijan and Georgia		Yes	17/04/2002		

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

L/H Conversion Belgium

Т	RA-N-500	Project	Pipeline including CS	Non-FID
U	pdate Date	30/05/2018		Non-Advanced
D	Description	The timetable for reducing L-gas exports from the Netherlands to Belgium, France and of 2012: the gradual reduction of L-gas exports to Belgium (and therefore to France as and end in 2030. The reason behind this announcement is the forecasted decline of the expected as from 2020). Most of the L-gas used in France transits through Belgium more conversion is done in France. For the Fluxys Belgium grid, infrastructure modifications zones in Belgium and in NW Europe.	s L gas is also exported to France), will l ne L-gas Groningen gas field (10%/year eaning that L-gas transit capacity need	begin in October 2024 production decline to be ensured until
P	RJ Code - PRJ Name	7		

Sponsors				General Information	NDP and PCI Information		
Fluxys Belgium	A.	100%	Promoter	Fluxys Belgium		Yes (Ten-Year Indicative Investment	
	7		Operator	Fluxys Belgium	Part of NDP	Programme Fluxys Belgium & Fluxys LNG 2017-2026)	
			Host Country	Belgium	NDP Number	L/H Conversion	
			Status	Planned	NDP Release Date	L/H Conversion	
			Website	Project's URL	NDP Website	<u>NDP URL</u>	
					Currently PCI	Yes (5.21)	
					Priority Corridor(s)	NSIW	
Schedule	Start Date	End Date			Third	-Party Access Regime	
Pre-Feasibility					Considered TPA Regin	ne Regulated	
Feasibility					Considered Tariff Regi	me Regulated	
FEED	09/2015				Applied for Exemption	Not Relevant	
Permitting					Exemption Granted	Not Relevant	
Supply Contracts							
FID					Exemption in entry dir	ection 0.00%	
Construction					Exemption in exit direct	ction 0.00%	
Commissioning	2022	2022					

Current TYNDP : TYNDP 2018 FINAL - Annex A Page 291 of 641

Fulfilled Criteria					
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability				
Specific Criteria Fulfilled Comments	Security of supply Without this project, the energy demand cannot be covered as soon as 2021 The security of supply of the L-gas area will be brought up to the level already reached in North West Europe, and even be improved. Competition Diversity in the L-gas area will reach the same level as the North West region, instead of depending solely on Dutch supply and producers. Moreover, maintaining the use of natural gas for heating will be a lot cheaper than converting to electricity (the price of electricity for the households in 2020 could be up to 4 times more expensive than gas. Market integration The L-gas area will go from an energy island (a single supply, through a single route) to a deeply interconnected market. Sustainability It would avoid building new energy infrastructures, new transmission and distribution capacities and new heating appliances.				

	Benefits	
Main Driver	Others	
Main Driver Explanati	ion	
Benefit Description		

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

Interconnection Bulgaria - Serbia

TRA-F-137	Project	Pipeline including CS	FID
Update Date	31/05/2018		Advanced
Description	IBS aims at connecting the national gas transmission networks of Bulgaria and Serbia 1st: a pipe will be built from Novi Iskar to Kalotina, BG (62.2 km) and from Nis to Dimbom/year, and from SRB to BG - 0.15 bcm/year. 2nd: the capacity will be increased from BG to SRB to 2,4 bcm/year, and from SRB to of 2 CSs (20 MW each) and 2 new gas pipeline sections (from G Bogrov CS to N Iskar 3rd: by construction of the looping VS Batulsi - G Bogrov CS (62 km) the capacity from SRB to BG the construction of the pipeline Batajnica - V Orašje (116 km) will ens Batočina (20 MW) will increase the capacity from 2.0 bcm/year to up to 2.5 bcm/y.	itrovgrad, SR (108 km), with capacity from BG to 0,95 bcm/year, and later to 1,5 b — 19 km and from V. Orašje to Nis — 16 m BG to SRB will be increased to 3,2 bc	cm/year, by construction 1 km). m/year. In the direction
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	IBS Future Operator	2022	BGn	RS	51.0 GWh/d
Interconnector BC BC			Comment: Ope	erator to be defined	
Interconnector BG RS	IBS Future Operator	2022	RS	BGn	51.0 GWh/d
			Comment: Ope	erator to be defined	

Sponsors		General Information		NDP and PCI Information		
Bulgarian section		Promoter	Ministry of Energy	Part of NDP	Yes (2017-2026 Ten-year network development plan of BTG)	
Ministry of Energy of Bulgaria 100%		Operator	IBS Future Operator			
Serbian section		Host Country	Bulgaria	NDP Number	Sectin 5.2 (5.2.3)	
	1000/	Status	Planned	NDP Release Date	10/04/2017	
Serbijagas	100%	Website	Project's URL	NDP Website	NDP URL	
				Currently PCI	Yes (6.10)	
				Priority Corridor(s)	NSIE	

Schedule	Start Date	End Date	Third-Party Access Regin
re-Feasibility	1	02/2011	Considered TPA Regime
easibility	12/2011	12/2012	Considered Tariff Regime
EED			Applied for Exemption
ermitting	06/2013	12/2019	Exemption Granted
Supply Contracts		03/2020	
FID		12/2012	Exemption in entry direction
Construction	03/2020	03/2022	Exemption in exit direction
Commissioning	2022	2022	

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Bulgarian territory	1.8 bcm/y maximum capacity	700	62		0
Serbian territory	1.8 bcm/y maximum capacity	700	108		0
	Total		170		

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply, Sustainability

IBS will connect networks of Bulgaria and Serbia. It is a prerequisite for development of the natural gas market, increase of market integration and boosting competition. All this involves the use of the potential and existing gas infrastructure on the territory of Bulgaria and Serbia, Chiren UGS capacity, UGS Banatski Dvor and Banatski Itebej. IBS will significantly contribute to the SoS, diversification of the supply sources Specific Criteria Fulfilled Comments and routes; increasing the transport volumes and the liquidity of the regional gas market, as well as the integration with the EU gas network under EU regulations. Bulgaria will be able to take advantage of alternative gas supplies through the Baumgarten Hub, and Serbia will have access to natural gas from the Southeast through the gas interconnections of Bulgaria with in Turkey and Greece. The connection of the gas markets of Bulgaria and Serbia will consequently contribute to the connection with the markets of the countries of Southeastern Europe.

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP

Delay Explanation

• Large archeological survey and researches along the route. • The Public procurement procedure for selection of a Contractor for the design phase, including apeal to Court, took rather long. • Need for amendment of the Detailed Development Plan. • The implementation of the project on Bulgarian territory, according to the requirements under OPIC 2014-2020 has exclusive conditionality with the Serbian section, namely the start of construction works on Serbian territory is an essential prerequisite to commission the grant under Operational Programme Innovation and Competitiveness for beginning of the construction works on the Bulgarian territory.

Expected Gas Sourcing

Caspian Region, Russia, LNG ()

Benefits					
Main Driver	Others				
Main Driver Explanation					
Benefit Description	The project should enhance the system flexibility and contribute to the security of supply within the region (increased interconnection between Bulgaria and Serbia)				

Intergovernmental Agreements						
Agreement	Agreement Description	Is Signed	Agreement Signature Date			
Memorandum of Understanding between Bulgaria and Serbia	Memorandum of Understanding signed in Sofia between Bulgaria and Serbia in 2005	Yes	08/04/2005			
Memorandum of Understanding between Bulgaria and Serbia	Memorandum of Understanding signed in Brussels between Bulgaria and Serbia in 2012	Yes	14/12/2012			
Joint statement by Bulgaria and Serbia	Joint statement signed in Brussels by Bulgaria and Serbia in 2010	Yes	05/03/2010			
Memorandum of Understanding between Bulgaria and Serbia	Memorandum of Understanding between Bulgaria and Serbia	Yes	19/01/2017			

General Comments

CBCA				
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not			
Submissin Date	not			
Decision Date				
Website				
Countries Affected				
Countries Net Cost Bearer				
Additional Comments				

	Financial Assistance					
Applied for CEF	(3) No, we have not applied for CEF					
Grants for studies	No					
Grants for studies amount						
Grants for works	No					
Grants for works amount						
Intention to apply for CEF	No decision yet taken					
Other Financial Assistance	Yes					
Comments	'BS is developed by Ministry of Energy (ME), beneficiary of Competitiveness Operational Programme (2007-2013 and 2014-2020). The source of financing is the European Fund for Regional Development.					

Interconnector Greece-Bulgaria (IGB Project)

TRA-F-378	Project	Pipeline including CS	FID
Update Date	15/11/2018		Advanced
Description	Construction of a bi-directional gas interconnector between the high pressure natural capacity of up to 3bcm/y, capable to be increased to up to 5 bcm/y with the install		th a technical forward
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Komotini - TAP / IGB	ICGB a.d.	2020	GR/TAP	BG/IGB	90.0 GWh/d
	ICGB a.d.	2020	IB-GRk	BG/IGB	90.0 GWh/d
Komotini (DESFA) - GR / IGB	ICGB a.d.	2025	IB-GRk	BG/IGB	60.0 GWh/d
Komotiii (BESI7) GK7 IGB	Comment: IGB will be technically ready for a forward capacity upgrade from up to 3bcm/y to up to 5 bcm/y with installation of compressor station				
	ICGB a.d.	2020	BG/IGB	BGn	90.0 GWh/d
Stara Zagora - IGB / BG	ICGB a.d.	2025	BG/IGB	BGn	60.0 GWh/d
Stara Zagora Tob / Bo	Comment: IGB will be technically ready for a forward capacity upgrade from up to 3bcm/y to up to 5 bcm/y with installation of compressor station				

Sponsors		General Information		NDP and PCI Information	
IGI Poseidon	50%	Promoter	ICGB a.d.	Part of NDP	Yes (Included in both the TYNDPs of
BEH EAD	50%	Operator	ICGB a.d.		Greece and Bulgaria)
DEIT END	3070	Host Country	Bulgaria	NDP Number	not applicable
		Status	In Progress	NDDD I D	
		Website	Project's URL	NDP Website	NDP URL
				Currently PCI	Yes (6.8.1)
				Priority Corridor(s)	NSIE

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		04/2009
Feasibility	05/2009	07/2009
FEED	08/2010	03/2016
Permitting	08/2010	06/2018
Supply Contracts		
FID		12/2015
Construction	09/2018	06/2020
Commissioning	2020	2025

Third-Party Access Regime	
Considered TPA Regime	Not Applicable
Considered Tariff Regime	Not Applicable
Applied for Exemption	Yes
Exemption Granted	Not Yet
Exemption in entry direction	90.00%
Exemption in exit direction	90.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
IGB	IGB will be technically ready for a forward capacity upgrade from up to 3bcm/y to up to 5 bcm/y with installation of compressor station. Capacity upgrade will depend on market committments and development of neighbouring systems.	813	182	12	0
	Total		182	12	

	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	As regional gas interconnector, IGB will bring benefits on all criteria, an in particular will secure new gas sources and market integration in a SEE

Fulfilled Criteria

region, suffering from a high level of dependcy on single source of imports and lack of regional cross-border gas interconnections.
Time Schedule

Grant Obtention Date	
Delay Since Last TYNDP	1 year
Delay Explanation	Extension in permitting procedures for authorization of construction and of Exemption Procedure for new gas infrastructure. Requirement by Bulgarian authorities for conducting public procurement procedures for construction phase in accordance with Public Procurement Act (PPA) and received appeals under PPA causing delays.

Expected Gas Sourcing

Algeria, Caspian Region, Libya, Norway, Russia, LNG (DZ,EU,GR,IT,NO,QA,TAP,TR,AE,US)

Comments about the Third-Party Access Regime

The Exemption Application has been submitted for obtaining exemption from tariff regulation, TPA obligations and ownership unbundling. Finalization of the Exemption procedure is planned in 1st half 2018.

roposed after the capacity on Exemption Application).
uch as, Southern Corridor n area and LNG. Other sources
nsure a viable rate of financial
ent, availability of financial
ocedures may be significantly
per technical conditions for to be achieved in order to g systems by shippers on IGB
ed Agreement Signature Dat
16/01/2019

<u></u>	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

	Financial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	Yes
Comments	Financial assisstance has been approved for the IGB in the amount of 45 mln. EUR under the European Energy Programme for Recovery (EEPR).
	IGB Project is applying for additional financial support from EU Structural and Investment Funds.
General Comments	

Looping CS Valchi Dol - Line valve Novi Iskar

TRA-N-592	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Advanced
Description	Modernisation of the national gas transmission network northern semi-ring with the CS Valchi dol to line valve Novi Iskar. The realization of the project will ensure capa GWh/d and capacity increment in GMS Chiren with 44 GWh/d In the context of the European market, the realization of the presented projects, forming the gas hub consolidation of the presented projects. Southern gas corridor and in full compliance with the plans for development of gas the diversification of natural gas supply sources.	e European objectives to build an intercon oncept, is in line with the projects for the d	a (through IBR) with 30.8 nected and single pan- evelopment of the
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
CMS Chiron	Bulgartransgaz EAD	2022	STcBGn	BGn	44.0 GWh/d
GMS Chiren	Bulgartransgaz EAD	2022	BGn	STcBGn	44.0 GWh/d
Pure (PC) / Ciurain (PO)	Bulgartransgaz EAD	2022	BGn	RO	30.8 GWh/d
Ruse (BG) / Giurgiu (RO)	Bulgartransgaz EAD	2022	RO	BGn	30.8 GWh/d

Sponsors			General Information	ND	P and PCI Information
Bulgartransgaz EAD	100%	Promoter	Bulgartransgaz EAD	Part of NDP	Yes (2017-2026 Ten-year network
		Operator	Bulgartransgaz EAD		development plan of BTG)
		Host Country	Bulgaria	NDP Number	Section 5.1. (5.1.1)
		Status	Planned	NDP Release Date	10/04/2017
		Website	Project's URL	NDP Website	NDP URL
				Currently PCI	Yes (6.25.4)
				Priority Corridor(s)	NSIE

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		06/2022
Commissioning	2022	2022

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

Enabled Projects

Project Code	Project Name
TRA-N-594	Construction of a Looping CS Provadia – Rupcha village
TRA-N-593	Varna-Oryahovo gas pipeline
UGS-N-138	UGS Chiren Expansion

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Valchi dol - line valve Novi Iskar		700	383		2022
	Total		383		

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comment	The concept for the creation of gas hub on the territory of Bulgaria is based on the idea significant quantities of natural gas from different sources to enter into a given real physical point in the region of Varna for their further transport and a venue for gas trade is organized at the same time at this point – a hub where every market participant could trade in gas. The idea of building the gas hub is supported by the strategic geographic location of Bulgaria, the well-developed existing gas infrastructure for transmission and storage and the projects for the construction of interconnections with Romania, Turkey, Greece and Serbia.

Time Schedule

Grant Obtention Date

17/05/2017

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Caspian Region, Russia, LNG (), Southern gas corridor gas sources; European gas hubs; Black sea shelf gas; Domestic production;

Benefits

Main Driver

Others

The concept for the creation of gas hub on the territory of Bulgaria is based on the idea significant quantities of natural gas from different sources to enter into a given real physical point in the region of Varna for their further transport and a venue for gas trade is organized at the same time at this point – a Main Driver Explanation hub where every market participant could trade in gas. The idea of building the gas hub is supported by the strategic geographic location of Bulgaria, the well-developed existing gas infrastructure for transmission and storage and the projects for the construction of interconnections with Romania, Turkey, Greece and Serbia.

Benefit Description

The creation of a gas hub aims at building the gas transmission infrastructure required to link the natural gas markets for the EU members states in the region - Bulgaria, Greece, Romania, Hungary, Croatia, Slovenia and through them to the members states from Central and Western Europe and to the countries from the Energy Community - Serbia, Macedonia, Bosna and Herzegovina and others, thus contributing to achieving the main priorities of the European energy policy. In the context of the European objectives to build an interconnected and single pan-European marker, the realization of the projects, forming the gas hub concept, is in line with the projects for the development of the Southern gas corridor and in full compliance with the plans for development of gas infrastructure in Europe to enhance the security of supply and the diversification of natural gas supply sources.

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

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

Rehabilitation, Modernization and Expansion of the NTS

TRA-F-298	Project	Pipeline including CS	FID
Update Date	31/05/2018		Advanced
Description	A multicomponent project which consists of different actions for rehabilitation, modinfrastructure in Bulgaria and includes activities on: CSs modernization, inspections, existing network and implementation of systems for optimization of the manageme account the complex nature of the project, a 3 phases implementation is envisaged: Phase 1: Unifies the actions undertaken in the period 2013-2015, planned to be final funds from the National Investment Plan. Phase 2: Includes actions initiated in 2016. They represent logic continuation of the Phase 1. Phase 3: Conditional infrastructure necessary after taking the FID for stage 2 of the I	repair and replacement of pipeline section nt process of the network technical conditional in a short term and funded with BTG overall realization of the project following	ns, expansion of the tion. Taking into
PRJ Code - PRJ Name	-		

Operator	Year	From Gas System	To Gas System	Capacity	
IBS Future Operator	2024	BGn	RS	19.4 GWh/d	
Comment: Conditional infrastructure necessary after taking the FID for stage 2 of the Interconnection Bulgaria – Serbia.					
IBS Future Operator	2024	RS	BGn	19.4 GWh/d	
Comment: Conditional i	nfrastructure necessa	, .			
Bulgartransgaz EAD	2021	BGg/BGT	GR	13.8 GWh/d	
Bulgartransgaz EAD	2021	BGq/BGT	TRe	58.1 GWh/d	
	IBS Future Operator Comment: Conditional in IBS Future Operator Comment: Conditional in Bulgartransgaz EAD	IBS Future Operator 2024 Comment: Conditional infrastructure necessa IBS Future Operator 2024 Comment: Conditional infrastructure necessa Bulgartransgaz EAD 2021	IBS Future Operator Comment: Conditional infrastructure necessary after taking the FIE Interconnection IBS Future Operator Comment: Conditional infrastructure necessary after taking the FIE Interconnection Bulgartransgaz EAD 2021 BGg/BGT	IBS Future Operator 2024 BGn RS Comment: Conditional infrastructure necessary after taking the FID for stage 2 of the Interconnection Bulgaria – Serbia. IBS Future Operator 2024 RS BGn Comment: Conditional infrastructure necessary after taking the FID for stage 2 of the Interconnection Bulgaria – Serbia. Bulgartransgaz EAD 2021 BGg/BGT GR	

Sponsors					General Information	NDP and PCI Information	
Bulgartransgaz EAD		1	100%	Promoter	Bulgartransgaz EAD	Part of NDP	Yes (2017-2026 Ten-year network
				Operator	Bulgartransgaz EAD	Tare of ND1	development plan of BTG)
				Host Country	Bulgaria	NDP Number	Section 5.5.
				Status	Planned	NDP Release Date	10/04/2017
				Website	Project's URL	NDP Website	NDP URL
					•	Currently PCI	Yes (6.8.2)
						Priority Corridor(s)	NSIE
Schedule	Start Date	End Date				Third-Pa	rty Access Regime
Pre-Feasibility	A STATE OF THE STA	12/2016				Considered TPA Regime	Not Applicable
Feasibility	08/2008	08/2017				Considered Tariff Regime	Not Applicable
FEED						Applied for Exemption	Not Relevant
Permitting	09/2009	02/2020				Exemption Granted	Not Relevant
Supply Contracts							
FID						Exemption in entry direction	on 0.00%
Construction	09/2014	06/2021				Exemption in exit direction	0.00%
Commissioning	2021	2024					

	Enabled Projects
Project Code	Project Name
TRA-N-654	Eastring - Bulgaria
TRA-N-594	Construction of a Looping CS Provadia – Rupcha village
TRA-N-593	Varna-Oryahovo gas pipeline
TRA-N-592	Looping CS Valchi Dol - Line valve Novi Iskar
UGS-N-138	UGS Chiren Expansion
TRA-N-140	Interconnection Turkey-Bulgaria
TRA-F-137	Interconnection Bulgaria - Serbia

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Gorni Bogrov - Novi Iskar	Conditional infrastructure required after the final investment decision on the realization of IBS Stage 2 related to a capacity increase of 1.8 to 3.2 bcm/y.	700	19	20	0
Lozenets-Nedyalsko		1,000	20		0
PF Beglej - VA Dermantsi - VA Batultsi - VA Kalugerovo		700	58		0
Valchi Dol - Preselka		700	23		0
To	otal		120	20	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	The modernization, rehabilitation and expansion of the existing gas transmission infrastructure will guarantee secure and reliable natural gas transmission, enhance the efficiency, reliability and flexibility of the transmission system and provide the required capacities and pressures. The implementation of the activities planned will secure the technical capabilities for transmission of additional natural gas quantities through the territory of the country, coming in through the existing and new entry and exit points, and opportunities for diversification of the directions of transmission depending on the market interest.

Time Schedule						
Grant Obtention Date	27/04/2016					
Delay Since Last TYNDP	yes					
Delay Explanation	Fine-tuning the schedule to reflect the degree of project implementation. An update of the Implementation Schedule has been made consequently to the technical and economic analysis of the operation of the new equipment (installed during Stage 1 of the CS modernization) in connection with the second stage of the CS modernisation (Phase 2).					

Expected Gas Sourcing

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

Benefits

Main Driver

Others

Main Driver Explanation

With the implementation of the project improvement of the transmission system's efficiency, reliability and flexibility will be achieved, ensuring the necessary capacities and pressures including pressure recovery, bottlenecks removal, providing technical capabilities for transmission of additional natural gas quantities through the territory of the country, in relation to the planned new entry and exit points and opportunities for diversification of the transmission directions depending on the market interest and last but not least management optimization of the gas flows and setting the facilities meeting the ecologic requirements. Thus the technical and economic parameters of the existing gas infrastructure which has been in operation for forty years now will be improved.

Benefit Description

The project implementation will contribute to increasing the degree of market integration, creating a competitive gas market, encouraging the trade development, ensuring greater systems' flexibility, risk management optimization. It is directly related to the planned new interconnections with Greece (IGB), Turkey (ITB) and Serbia (IBS) as well as to the IBR (in operation already) and with the use of the UGS Chiren's capacity in relation to the project for its expansion, most of them labelled as PCIs, and with the development of the significant cross-border gas projects in the region. Their efficient use is related to the technical capacities of the existing gas transmission infrastructure on the territory of Bulgaria to ensure sufficient capacity and adequate technical conditions for the transport of the planned new natural gas quantities. The project was supported at the highest political level, as well as at regional level – it is a priority CESEC project.

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	01/09/2017	Grants for studies	Yes
Decision Date	10/10/2017	Grants for studies amount	Mln EUR 1
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Bulgaria	Grants for works amount	Mln EUR 0
Countries Net Cost Bearer	Bulgaria	Intention to apply for CEF	Yes, for studies and works
Additional Comments		Other Financial Assistance	Yes
		Comments	Phase 1, consisting of activities undertaken in the period 2013-2015, was funded by Bulgartransgaz EAD. Stage 1 of the modernization of compressor stations (part of Phase 1) was included in the National Investment Plan (NIP) and, in this respect, in 2017 Bulgartransgaz EAD received national funding for CS Petrich, CS Ihtiman and CS Lozenets to the total amount of EUR 26 million. For CS Strandzha, the project implementation costs of EUR 11 million were partially reimbursed. The reimbursement to the full amount of the specified in the NIP funds amounting to EUR 15 million is forthcoming.
		General Comments	During the 2017 CEF Energy Call for proposals Bulgartransgaz EAD submitted a project proposal for works. The proposal was not recommended for funding.

UGS Chiren Expansion

UGS-N-138	Project	Storage Facility	Non-FID
Update Date	22/05/2018		Advanced

Description

Capacity increase of the only gas storage facility on the territory of Bulgaria in order to achieve larger gas volumes stored, increased gas reservoir pressures and higher daily average injection and withdrawal flowrates. The project provides for the increase in the working gas volume up to 1 bcm and increase in the injection and withdrawal rate up to 8 – 10 mcm/day.

PRJ Code - PRJ Name

-

Capacity Increments Variant For Modelling

Point			Operator		Year	From Gas System	To Gas System	Capacity	
GMS Chiren					2024	STcBGn	BGn	48.9 GWh/d	
					2024	BGn	STcBGn	51.0 GWh/d	
			Bulgartransgaz EAD (SSO)		2024	STcBGn	BGn	48.9 GWh/d	
			Bulgartransgaz EAD (SSO)		2024	BGn	STcBGn	51.0 GWh/d	
Sponsors			General Informa	tion		NDP and	PCI Information		
Bulgartransgaz EAD	100%	Promot	ter	Bulgartransgaz EAD	Part of NDP			es (2017-2026 Ten-year network	
		Operate	or	Bulgartransgaz EAD		JI NDI	development plan of BTG)		
		Host Co	ountry	Bulgaria	NDP	Number	S	ection 5.3 (5.3.1)	
		Status	,	Planned	NDP	Release Date		10/04/2017	
		Website		Project's URL	NDP	Website		NDP URL	
						ently PCI		Yes (6.20.2)	
					Priori	ty Corridor(s)		NSIE	

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		06/2011
Feasibility	03/2015	10/2019
FEED	08/2020	11/2022
Permitting	04/2021	12/2022
Supply Contracts		
FID		
Construction	06/2021	06/2024
Commissioning	2024	2024

Regulated
Regulated
Not Relevant
Not Relevant
0.00%
0.00%

Technical Information (UGS)									
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor	Comments	Commisioning Year
UGS Chiren	Depleted Field	Yes	UGS Chiren Expansion	450	4.6	4.8	75	The expected load factor for the first 3 years after the commissioning.	2024

- 100			
Fulfil	lad	Cri	toria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply

Specific Criteria Fulfilled Comments

The project for its expansion aims on one hand at creating conditions to ensure security of supplies to Bulgarian users and users in the countries from the region, and on the other - UGS Chiren development as commercial gas storage in an interconnected regional and Europewide market, as UGS Chiren is an integral part of the plans for development of the regional gas system consisting of interconnections, LNG terminals, storage facilities. In the medium term UGS Chiren promises to become a commercial facility with a significant role in competition development in the regional gas market and in provision of additional flexibility of the gas transmission systems at regional level, with a significant contribution to congestion management and seasonal optimization of use of the gas transmission systems.

Tim	Δ.	•	\boldsymbol{c}	n	Δ	М	ш	Δ.

Grant Obtention Date 23/10/2015

Delay Since Last TYNDP

Delay Explanation

yes

Commissioning: 2024 The delay of the overall PCI implementation is due to delay in the in the implementation of 3D seismic studies. The reasons are that within the tender procedure, the Selection Decision was appealed by one of the bidders and that hindered its successful completion. In the mean time new standard templates for tender procedures were approved by the Bulgarian Ministry of Finance, which from our side let to delay in the preparation of new tender documentation for the 3D seismic studies tendering, which afterwards needed to be relaunch.

Expected Gas Sourcing

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

	Benefits						
Main Driver	Regulation SoS						
Main Driver Explanation	UGS Chiren has been the only gas storage on the territory of Bulgaria for 40 years. It is a key instrument for the functioning of the gas market in Bulgaria, covering seasonal fluctuations in natural gas consumption in the country by securing the necessary flexibility caused by the differences between the supplies and consumption and ensures emergency reserve. UGS Chiren is a crucial instrument ensuring the security of gas supplies. In the medium term UGS Chiren promises to become a commercial facility with a significant role in competition development in the regional gas market and in provision of additional flexibility of the gas transmission systems at regional level, with a significant contribution to congestion management and seasonal optimization of use of the gas transmission systems.						
Benefit Description	The project for its expansion aims on one hand at creating conditions to ensure security of supplies to Bulgarian users and users in the countries from the region, and on the other - UGS Chiren development as commercial gas storage in an interconnected regional and Europe-wide market, as UGS Chiren is an integral part of the plans for development of the regional gas system consisting of interconnections, LNG terminals, storage facilities.						

	CBCA		Financ
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, v
Submissin Date		Grants for studies	
Decision Date		Grants for studies amount	
Website		Grants for works	
Countries Affected		Grants for works amount	
Countries Net Cost Bearer		Intention to apply for CEF	
Additional Comments		Other Financial Assistance	
		Comments	

Financial Assistance					
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision				
Grants for studies	Yes				
Grants for studies amount	Mln EUR 4				
Grants for works	No				
Grants for works amount					
Intention to apply for CEF	Yes, for studies and works				
Other Financial Assistance	No				
Comments					
General Comments					

Varna-Oryahovo gas pipeline

TRA-N-593	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Advanced
Description	Construction of new infrastructure, consisting of 844 km of gas pipeline with prevail IP at Varna to a new IP at Bulgaria/Romanian border near Oryahovo city), ensuring compressor stations with a total installed capacity of 265 MW securing the pressure	an additional capacity of 42,6 bcm/y (136	3
PRJ Code - PRJ Name	-		

Capacity Increments	Variant For Mod	delling	Onovatov		Veer	From Cos System	To Cos System	Conscitu
Point Oryahovo			Operator Bulgartransgaz EAD		Year 2022	From Gas System BG/VAR	To Gas System RO	Capacity 1,366.0 GWh/d
Oryanovo			Bulgartransgaz EAD		2022	BG/ VAN	NO .	1,300.0 GW11/0
Sponsors			General Inform	mation		NDP and	PCI Information	
Bulgartransgaz EAD	Ja	100%	Promoter	Bulgartransgaz EAD	Part o	of NDP	Yes (2017-2026 T	
			Operator	Bulgartransgaz EAD)			nent plan of BTG)
			Host Country	Bulgaria	1	Number	S	ection 5.1. (5.1.1)
			Status	Planned	1	Release Date		10/04/2017
			Website	<u>Project's URL</u>	<u>-</u>	Website		<u>NDP URL</u>
						ntly PCI		Yes (6.25.4)
					Priori	ty Corridor(s)		NSIE
Schedule	Start Date	End Date				Third-Par	ty Access Regime	
Pre-Feasibility					Consi	dered TPA Regime		Regulated
Feasibility					Consi	dered Tariff Regime		Regulated
FEED					Applie	ed for Exemption		No
Permitting					Exem	otion Granted		No
Supply Contracts								
FID					Exem	otion in entry directio	on	0.00%
Construction		06/2022			Exem	ption in exit direction		0.00%
Commissioning	2022	2022						

Current TYNDP: TYNDP 2018 FINAL - Annex A Page 328 of 641

Enabled Projects

Project Code Project Name

TRA-N-592 Looping CS Valchi Dol - Line valve Novi Iskar

TRA-N-594 Construction of a Looping CS Provadia – Rupcha village

Pipelines and Compressor Stations						
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year	
Varna-Oryahovo gas pipeline	a new pipeline incl. 2 CS	1,200	844	265	0	
	Total		844	265		
Fulfilled Criteria						

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The concept for the creation of gas hub on the territory of Bulgaria is based on the idea significant quantities of natural gas from different sources to enter into a given real physical point in the region of Varna for their further transport and a venue for gas trade is organized at the Specific Criteria Fulfilled Comments same time at this point – a hub where every market participant could trade in gas. The idea of building the gas hub is supported by the strategic geographic location of Bulgaria, the well-developed existing gas infrastructure for transmission and storage and the projects for the

construction of interconnections with Romania, Turkey, Greece and Serbia.

Time Schedule	
	١.
11116 201160111	-

Grant Obtention Date 17/05/2017

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Caspian Region, Russia, LNG (), Southern gas corridor gas sources; European gas hubs; Black sea shelf gas; Domestic production;

Benefits

Main Driver

Others

The concept for the creation of gas hub on the territory of Bulgaria is based on the idea significant quantities of natural gas from different sources to enter into a given real physical point in the region of Varna for their further transport and a venue for gas trade is organized at the same time at this point – a Main Driver Explanation hub where every market participant could trade in gas. The idea of building the gas hub is supported by the strategic geographic location of Bulgaria, the well-developed existing gas infrastructure for transmission and storage and the projects for the construction of interconnections with Romania, Turkey, Greece and Serbia.

Benefit Description

The creation of a gas hub aims at building the gas transmission infrastructure required to link the natural gas markets for the EU members states in the region - Bulgaria, Greece, Romania, Hungary, Croatia, Slovenia and through them to the members states from Central and Western Europe and to the countries from the Energy Community - Serbia, Macedonia, Bosna and Herzegovina and others, thus contributing to achieving the main priorities of the European energy policy. In the context of the European objectives to build an interconnected and single pan-European marker, the realization of the projects, forming the gas hub concept, is in line with the projects for the development of the Southern gas corridor and in full compliance with the plans for development of gas infrastructure in Europe to enhance the security of supply and the diversification of natural gas supply sources.

CBCA					
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not				
Submissin Date					
Decision Date					
Website					
Countries Affected					
Countries Net Cost Bearer					
Additional Comments					

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

Construction of a Looping CS Provadia – Rupcha village

TRA-N-594	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Advanced
Description	Modernisation of the existing network for transit transmission with the construction of Provadia to the village of Rupcha, replacement of 20 km (2x10 km) 12 of existing gas border with Turkey and increase in the capacity of CS Strandja with 10 MW. The reali	pipelines with diameter of Dn 1000 from	m CS Strandja to the

GWh/d) to Turkey.

PRJ Code - PRJ Name

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Strandzha (BG) / Malkoclar (TR)	Bulgartransgaz EAD	2022	BGg/BGT	TRe	192.5 GWh/d
Strandzna (bg) / Iviaikociai (TK)			Comm	ent: a new looping	1

Sponsors			General Information	NDP and PCI Information		
Provadia - Rupcha		Promoter	Bulgartransgaz EAD	Part of NDP	Yes (2017-2026 Ten-year network	
Bulgartrasngaz EAD	100%	Operator	Bulgartransgaz EAD		development plan of BTG)	
Strandja-IP BG/TR		Host Country	Bulgaria	NDP Number	Section 5.1. (5.1.1)	
·	1000/	Status	Planned	NDP Release Date	10/04/2017	
Bulgartrasngaz EAD	100%	Website	Project's URL	NDP Website	NDP URL	
				Currently PCI	Yes ()	
				Priority Corridor(s)	NSIE	

Schedule	Start Date	End Da
Current TYNDP:	TYNDP 2018 FINAL	- Annex

Pre-Feasibility Feasibility

FEED

Permitting

Supply Contracts

FID

Construction 06/2022
Commissioning 2022 2022

	- 9				
Third-Party Access Regime					
Considered TPA Regime	Regulated				
Considered Tariff Regime	Regulated				
Applied for Exemption	No				
Exemption Granted	No				
Exemption in entry direction	0.00%				
Exemption in exit direction	0.00%				

Enabled Projects

Project Code Project Name

TRA-N-592 Looping CS Valchi Dol - Line valve Novi Iskar

TRA-N-593 Varna-Oryahovo gas pipeline

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Strandja – a new IP with Turkey.	Replacement of 20 km of gas pipelines ($2x10$ km), DN 1000 in the section CS Strandja – a new IP with Turkey.	1,000	20		
Looping CS Provadia – Rupcha village	new looping and additional power to existing compressior station	1,200	50	10	
	Total		70	10	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The concept for the creation of gas hub on the territory of Bulgaria is based on the idea significant quantities of natural gas from different sources to enter into a given real physical point in the region of Varna for their further transport and a venue for gas trade is organized at the Specific Criteria Fulfilled Comments same time at this point – a hub where every market participant could trade in gas. The idea of building the gas hub is supported by the strategic geographic location of Bulgaria, the well-developed existing gas infrastructure for transmission and storage and the projects for the construction of interconnections with Romania, Turkey, Greece and Serbia.

Time Schedule

Grant Obtention Date

17/05/2017

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Caspian Region, Russia, LNG (), Southern gas corridor gas sources; European gas hubs; Black sea shelf gas; Domestic production;

Benefits	

Main Driver

Others

The concept for the creation of gas hub on the territory of Bulgaria is based on the idea significant quantities of natural gas from different sources to enter into a given real physical point in the region of Varna for their further transport and a venue for gas trade is organized at the same time at this point – a Main Driver Explanation hub where every market participant could trade in gas. The idea of building the gas hub is supported by the strategic geographic location of Bulgaria, the well-developed existing gas infrastructure for transmission and storage and the projects for the construction of interconnections with Romania, Turkey, Greece and Serbia.

Benefit Description

The creation of a gas hub aims at building the gas transmission infrastructure required to link the natural gas markets for the EU members states in the region - Bulgaria, Greece, Romania, Hungary, Croatia, Slovenia and through them to the members states from Central and Western Europe and to the countries from the Energy Community - Serbia, Macedonia, Bosna and Herzegovina and others, thus contributing to achieving the main priorities of the European energy policy. In the context of the European objectives to build an interconnected and single pan-European marker, the realization of the projects, forming the gas hub concept, is in line with the projects for the development of the Southern gas corridor and in full compliance with the plans for development of gas infrastructure in Europe to enhance the security of supply and the diversification of natural gas supply sources.

CBCA				
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not			
Submissin Date				
Decision Date				
Website				
Countries Affected				
Countries Net Cost Bearer				
Additional Comments				

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

Cyprus Gas2EU

LNG-N-1146	Project	LNG Terminal	Non-FID
Update Date	21/06/2018		Non-Advanced

Description

CyprusGas2EU project (7.5 in the 3rd PCI list) is the only candidate PCI project that ends the isolation of an EU Member State and it is necessary for the Southern Gas Corridor. The project focuses on two technological options: A Floating solution (FSRU) for LNG imports to Cyprus, including reception, storage and regasification for liquefied natural gas either onshore or nearshore in Cyprus. –A Gas Storage facility to facilitate a Buffer for the internal gas pipeline to EAC power station and to enable security of supply for the FSRU and other gas projects such as the PCI 7.3.1 EastMed pipeline. The CyprusGas2EU project relates to 4 options included in TYNDP that aim for the development of gas infrastructure in Cyprus which are the following: 1) CyprusGas2EU (FSRU) for LNG imports to Cyprus in Vassilikos area 2) Internal Gas Network to power stations of Moni and Dhekelia 3) LNG tank storage facility in Vassilikos area 4) Pipeline from Cyprus (Aphrodite field) to Egypt

PRJ Code - PRJ Name

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
	Cygas	2020	LNG_Tk_CY	CY	40.0 GWh/d	
Terminal 2 Vassiliko - Lemesos Port	Comment: (the entry point provided is not the correct one)-The correct entry point is Terminal 2 of Limassol Port at Vasilikos area.					

Sponsors		General Information	ND	P and PCI Information
	Promoter	Ministry of Energy, Commerce,		No ((2) no NDP exists in the country)
		Industry and Tourism	NDP Number	NA
	Operator	DESFA S.A.	NDP Release Date	
	Host Country	Cyprus	NDP Website	
	Status	Planned	Currently PCI	Yes (7.5)
	Website	<u>Project's URL</u>	Priority Corridor(s)	SGC

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		02/2017
Feasibility	04/2017	10/2017
FEED	05/2017	12/2018
Permitting	08/2017	06/2019
Supply Contracts		
FID		
Construction	12/2018	11/2020
Commissioning	2020	2020

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

Technical Information (LNG)						
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 C LNG)	Comments	Commissioning Load Factor Year (%)
CyprusGas2FU	No					

Fulfilled Criteria

	runned Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability

The project will contribute to market integration as it will enable Cyprus to connect with the European gas network. It will improve Cyprus's Specific Criteria Fulfilled Comments security of energy supply and diversification of imported energy sources and fuels. The project will support objectives of sustainability as it will contribute to the reduction of GHG emissions in the island and prepare a low carbon economy.

Expected Gas Sourcing

LNG (), Cyprus

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

CBCA			Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision		Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	14/08/2017		Grants for studies	No	
Decision Date	13/10/2017		Grants for studies amount		
Website	<u>CBCA URL</u>		Grants for works	Yes	
Countries Affected	Cyprus, Greece		Grants for works amount	Mln EUR 101	
Countries Net Cost Bearer	Cyprus		Intention to apply for CEF		
Additional Comments			Other Financial Assistance	Yes	
			Comments	From CEF Synergy Call 2017	
			General Comments	www.Cynergy-project.eu	

Enhancement of Estonia-Latvia interconnection

TRA-F-915	Project	Pipeline including CS	FID
Update Date	28/03/2018		Advanced
Description	The project composes of implementation of reverse flow in Karksi metering stareverse flow gas measuring station would be erected to the location of the eximeasuring of gas quantities through Estonia with the main advantages of reversible pipeline. Karksi reverse flow enables the full use of Inculkalns UGS for all the matransportation of gas through Estonia and the Balticconnector offshore pipeline enable the full use of the planned offshore pipeline without a compressor statistic physical implementations needed for market integration between the Baltic	sting measuring station in Karksi. Karksi reverserse flow used after the commissioning of the larket participants. Puiatu compressor station he to the Finnish gas market. The current systemion in south of Estonia. Puiatu compressor station in south of Estonia.	se flow enables the Balticconnector offshore enables the m design does not
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator Year	From Gas System	To Gas System	Capacity	
Karksi	Elering AS 2019	EE	LV	105.0 GWh/d	
	Elering AS 2019	LV	EE	46.4 GWh/d	

Sponsors		General Information		NDP and PCI Information		
Karksi metering station		Promoter	Elering AS	Part of NDP	Yes (EESTI GAASIÜLEKANDEVÕRGU	
Elering AS	100%	Operator	Elering AS		ARENGUKAVA 2018-2027)	
Puiatu Compressor Station		Host Country		NDP Number	paragraph 3.3	
·	1009/	Status	In Progress	NDP Release Date	03/03/2018	
Elering AS	100%	100% Website	Project's URL	NDP Website	NDP URL	
				Currently PCI	Yes (8.2.2)	
				Priority Corridor(s)	BEMIP	

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		01/2015
Feasibility	01/2015	01/2016
FEED	05/2015	05/2016
Permitting	09/2015	06/2019
Supply Contracts		02/2018
FID		10/2016
Construction	06/2018	12/2019
Commissioning	2019	2019

Regulated
Regulated
No
Not Relevant
0.00%
0.00%

Enabled Projects

Project Code Project Name
TRA-F-895 Balticconnector

Specific Criteria Fulfilled Comments

Pipelines and Compressor Stations				
Pipeline Section	Pipeline Comment	ength (km)	Compressor Power (MW)	Comissioning Year
Karksi GMS, Puiatu CS			10	2019
	Total		10	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The Enhancement of Estonia-Latvia interconnection project, together with the Balticconnector project, will increase the security of supply of the Finnish and whole Baltic region by connecting the gas systems of Finland and Baltic countries. Bi-directionality of Estonia-Latvia interconnection point will also enable Finnish gas customers access to the Incukalns UGS in Latvia. In addition, connecting the gas systems of Baltic countries and Finland will create a positive environment for the development of regional gas market, which is also expected to increase competition in the gas market. The aim is to move to Finnish-Baltic single entry-exit zone, which has been identified as the best fit solution in the "Baltic regional gas market study".

Expected Gas Sourcing

Russia, LNG (?)

-				œ.	
B	ρ	n	Θ.	П	tς

Main Driver Regulation-Interroperability

Main Driver Explanation Main project driver is the operational link with the Balticconnector project

Benefit Description

	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	07/04/2016	Grants for studies	No
Decision Date	22/04/2016	Grants for studies amount	
Website	<u>CBCA URL</u>	Grants for works	Yes
Countries Affected	Finland, Latvia	Grants for works amount	Mln EUR 0
Countries Net Cost Beare	Estonia	Intention to apply for CEF	
Additional Comments		Other Financial Assistance	No
		Comments	
		General Comments	

Paldiski LNG Terminal

LNG-N-79	Project	LNG Terminal	Non-FID
Update Date	28/03/2018		Non-Advanced
Description	LNG import and regasification terminal for regional use on the Pakri peninsula on the Easern	coast of the Baltic Sea	
PRJ Code - PRJ Name	-		

B 1 4		delling					
Point	1		Operator		Year From Gas System	To Gas System	Capacity
			Balti Gaas plc 2025 LNG_Tk_EE EE			EE	140.0 GWh/d
Paldiski LNG			Comm	ent: The regasification capo	acity will be dependent on n Ba	narket demand and lticConnector usage.	
Sponsors			General Info	rmation	NDP an	d PCI Information	
Balti Gaas LLC	4	100%	Promoter	Balti Gaas plc	Part of NDP	Yes (Estonian tran	
	19		Operator	Balti Gaas plc		development plai	n for 2018-2027)
			Host Country	Estonia	NDP Number		-
			Status	Planned	NDP Release Date		03/03/2018
			Website	<u>Project's URL</u>	NDP Website		<u>NDP URL</u>
					Currently PCI		No
					Priority Corridor(s)		BEMIP
Schedule	Start Date	End Date			Third-Pa	rty Access Regime	
Pre-Feasibility		11/2008			Considered TPA Regime		Regulated
Feasibility	01/2012	01/2016			Considered Tariff Regime		Regulated
Casibility		01/2010			9		negatatea
FEED	04/2013	04/2014			Applied for Exemption		_
,							No
FEED	04/2013	04/2014			Applied for Exemption		No
FEED Permitting	04/2013	04/2014			Applied for Exemption		No Not Relevant
FEED Permitting Supply Contracts	04/2013	04/2014 06/2017			Applied for Exemption Exemption Granted	on	Not Relevant 0.00% 0.00%

Current TYNDP: TYNDP 2018 FINAL - Annex A Page 363 of 641

			Technical Info	rmation (LN	IG)				
Regasification Facility	Reloading Ability	Project Phase	Expected Increment (bcm/y)	Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor
Paldiski LNG Terminal	Yes	Phase I	1.2	160,000	13.30	160,000	Estimates	2025	25
			Fulfilled	Criteria					
Specific Criteria Fulfilled	Comp	etition, Security of Sup	ply, Sustainability						
Specific Criteria Fulfilled Co	mments Sustai	. .					•	•	
	/		Time Sc	chedule					

	Time Schedule
Grant Obtention Date	
Delay Since Last TYNDP	2 years
Delay Explanation	The project is technically ready for construction, but no FID can be taken before the competing projects and governmental aid issues are solved (political decision regarding regional LNG terminal and potential financial aid to it).

Expected Gas Sourcing

LNG (?), Terminal operator is not responsible for LNG sourcing. This is done by terminal clients (TPA). The terminal has LNG quality a

Comments about the Third-Party Access Regime

The regulatory scheme applicable to this project is unclear. Since the project has a PCI lable, and thus would have significant cross-border impact, the regulatory scheme must be acceptable to all concerned regulators. Additionally, the regulation for LNG terminals in the project country (Estonia) does not yet exist.

Benefits					
Main Driver	Others				
Main Driver Explanation	The region as a whole is an energy island with Russia as the only counterpart and supply source for gas. An LNG import and re-gasification terminal would provide alternative sources as well as storage capability. Currently, there is a temporary solution in Klaipeda, but a permanent and more efficient solution is needed, especially after BalticConnector, to supply the whole region (Finland, Estonia, Lativa and Lithuania)				
Benefit Description	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. It can also be the Baltic region Hub for smaller LNG terminals (Pori, Hamina, Tornio).				

Barrier Type

Regulatory

Barriers	
in Estonia is insufficient to clarify this point.	

Permit Granting Long process

Political The assesment methods of competing PCI projects is not well established.

Regulatory framework for LNG facilities

Regulatory Lack of proper transposition of EU regulation

Description

Intergovernmental Agreements					
Agreement	Agreement Description	Is Signed	Agreement Signature Date		
Memorandum of Understanding	MoU between Estonia and Finland and LNG project promoters	Yes	28/02/2014		
Agreement between PMs of Estonia and Finland	Agreement in regards to the gas infrastructure in the countries.	Yes	17/11/2014		

CBCA				Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision		Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	10/08/2016		Grants for studies	Yes
Decision Date	28/10/2016		Grants for studies amount	Mln EUR 137
Website	<u>CBCA URL</u>		Grants for works	Yes
Countries Affected	Estonia, Finland		Grants for works amount	Mln EUR 137
Countries Net Cost Bearer			Intention to apply for CEF	
Additional Comments	No net cost bearers were identified		Other Financial Assistance	No
			Comments	
				The CEF funding application was declined due to unclear
			situation with the temporary solution in Klaipeda and lack of clarity regarding the permanent solution.	

Tallinn LNG

LNG-N-962	Project	LNG Terminal	Non-FID
Update Date	15/11/2018		Advanced
Description	Conventional LNG import terminal (bunkering, break-bulk, on-grid and off-grid land supply and serving commercial customers. The project includes 5x800 m3 pressuring 11 m), 2x100m3/h truck loading rack and connection to the low pressure natural gas covering about 60% of Estonian gas demand. And one to two flat bottom storage to m3, with second connection to the berth (LOA 365m depth -17m) capable of handle (MOP 54 bar) national high pressure grid located about 13 km from the terminal simulation of the load of the national high pressure grid. (grid connection to the national high pressure grid.)	ted bullets, connection to the existing beries distribution network located about 1 km anks with the total LNG storage capacity ling any size LNG carrier on the market, cote. Rail shunting tracks are 200m. Current	th (LOA 198 m; depth - on from terminal site, of 50 000 m3 to 320 000 onnection to DN711
PRJ Code - PRJ Name			

Capacity Increments Variant For Mo	delling						
Point		Operator		Year	From Gas System	To Gas System	Capacity
Tallinn LNG	LNG Vopak / Elering		2022	LNG_Tk_EE	EE	121.0 GWh/d	
Sponsors	sors General Information		General Information		NDP and	PCI Information	
Vopak / Vopak E.O.S. 75%		Promoter	Vopak E.O.S. AS / Vopak LNG Holdings B.V/ Port of Tallinn AS	Part of	NDP		ii Ülekandevõrgu kava 2018-2027.)
Port of Tallinn	25%	Operator	Vopak / Elering		lumber	9	ragraph 3 point 7
		Host Country	Estonia	NDP R	elease Date		03/03/2018
		Status	Plannea	NDP W	Vebsite		NDP URL
		Website	<u>Project's URL</u>	Curren	tly PCI		No
				Priority	/ Corridor(s)		BEMIP

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		09/2012
Feasibility	01/2012	
FEED	01/2016	
Permitting	01/2012	01/2018
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022

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

Technical Information (LNG)									
Regasification Facility	Reloading Ability	Project Phase	Expected Incremen (bcm/y)	t Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
Tallinn LNG	Yes	Tallinn LNG	4.0	160,000	11.00	160,000	No comments	2022	50

Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability			
Specific Criteria Fulfilled Comments	Tallinn LNG terminal is an optimal project and only Estonian project on already exisiting (port) infrastructure and main industrial area, that: 1. Helps mitigating demand for curtailment under major import route distruption. 2. Ensures the compliance with the N-1 requirement. 3. Connects second or third gas source. 4. Contributes to the reduction of the exisiting differences in wholesale gas prices.			

	Time Schedule
Grant Obtention Date	
Delay Since Last TYNDP	One to two years
Delay Explanation	The project is delayed because of the uncertainty and delay in other former LNG Terminal projects in the region, as this affects the project scope, feasibility, FEED and FID.

Expected Gas Sourcing

LNG ()

	Benefits
Main Driver	Market Demand
Main Driver Explanation	Market integration and diversification, SoS, market development, clean energy.
Benefit Description	Reduces isolation and bottlenecks, interoperability, appropriate connections, diversification of sources, diversification of routes, sustainability.
	Barriers
Barrier Type	Description
Others	The market interference which has been created by FSRU 'Independence' LNG vessel moored in Klaipeda harbor, Lithuania. With almost entire cost of the vessel being socialized over the Lithuanian gas consumer with any additional service provided by the vessel being largely underpriced; the vessel is negatively affecting other Baltic terminal developments. As other projects do not enjoy such heavy state funding and will therefore have to develop market-based commercially sound solutions in the region. A concrete example is FSRU 'Independence' re-gasification price, which is priced about 10-20 times lower than any other large LNG facility. We expect the European Competition authority to review the waiver provided in this respect, as the cost-base of this particular vessel largely exceeds 'normal' cost level of an onshore facility. Over 10y period, total lease cost of the vessel is in excess of Eur 600 million, that is equal to about two similar land-based terminals construction cost.
Market	Lack of market maturity

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance				
Applied for CEF	(3) No, we have not applied for CEF			
Grants for studies	No			
Grants for studies amount				
Grants for works	No			
Grants for works amount				
Intention to apply for CEF				
Other Financial Assistance	No			
Comments				
General Comments				

Adaptation L- gas - H-gas

TRA-N-429	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Non-Advanced
	The L-gas area covers around 10% of French gas consumption. It depends on the Netherlan annual basis. Additional flexibilty is ensured by Gournay UGS and peak H-to-L conversion far Due to the decline of L-gas production the conversion of the whole French L-gas area will he project covers both the required infrastructure to ensure access to H-gas supply and all coordinated with Belgian and Dutch operators.	ncility at Loon-Plage. ave to be achieved by the end of	f 2029.
PRJ Code - PRJ Name	- //		

Capacity Increments Variant For Modelling							
Point		Operat	or	Year Fron	n Gas System	To Gas System	Capacity
Blaregnies L (BE) / Taisnières B (FR)		GRTgaz 202		2025	BEI	FRnL	-115.0 GWh/d
Sponsors			General Information		NDP and	PCI Information	
Storage		Promoter	GRTgaz and Storengy	Part of NDP	Yes	s (Plan décennal de	
Storengy	5%	Operator	GRTgaz			du réseau de GR	Tgaz 2017-2026)
Transmission		Host Country	France	NDP Numb	er <i>Pla</i>	an de conversion d	u gaz B en gaz H
	0.50/	Status	Planned	NDP Releas	e Date		27/11/2017
GRTgaz	95%	Website	Project's URL	NDP Websi	te		NDP URL
				Currently Po	CI		Yes (5.21)
				Priority Cor	ridor(s)		NSIW

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		09/2016
Feasibility	06/2014	09/2016
FEED	09/2015	09/2020
Permitting	11/2016	12/2026
Supply Contracts		
FID		12/2021
Construction	04/2017	12/2026
Commissioning	2025	2025

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

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Arleux interconnection station	Adaptation				0
Bethune area	New pipeline	300	8		0
Brouckerque area	New pipeline	200	2		0
Connection to H-gas grid	Gravelines, Diéval, Isbergues, Orchies, Beaurevoir, Caulaincourt and Nesle				0
Interconnection with Gournay UGS	Adaptation				0
Taisnieres interconnection station	Adaptation				0
	Total		10		

	Tullined Citteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	The project will ensure that gas consumers of the former L-gas area will benefit from the same competitive and secured supply as H-gas
opecine circeria rannica comments	consumers.

Expected Gas Sourcing

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

Benefits					
Main Driver	Others				
Main Driver Explanation	Decline of L-gas production in the Netherlands with supply contracts ending on 2029 for France and Belgium notwithstanding earlier termination date.				
Benefit Description	Currently the L-gas area across France, Belgium and Germany is similar to a gas island connected to a single source. Through the conversion of the area to H-gas, the project is part of set of new regional infrastructures enabling market participants and consumers to take benefit from competitive and secured supply as the rest of North-West Europe.				

CBCA			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not		
Submissin Date			
Decision Date			
Website			
Countries Affected			
Countries Net Cost Bearer			
Additional Comments			

Financial Assistance				
Applied for CEF	(3) No, we have not applied for CEF			
Grants for studies	No			
Grants for studies amount				
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	No decision yet taken			
Other Financial Assistance	No			
Comments				
General Comments				

White Stream

TRA-N-53	Project Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Non-Advanced
Description	The White Stream pipeline will transport gas produced in Turkmenistan and the will branch off an existing pipeline from Azerbaijan to Georgian-Turkish border connection point to Georgian Black Sea coast where a major compressor static Romania, across the Black Sea. An alternative destination to Varna, Bulgaria can Balkan Pipeline, BRUA and other possible connectors to bring competitively proutes.	er (the SCP) and will include an onshore pipelin ion will provide the high pressure required to to an be considered. White Stream will be connec	ransmit gas to Constanta ted to existing Trans-
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
C	White Stream	2022	TM/SCP	RO	505.0 GWh/d
Constanta (White Stream)				Comment:	
	White Stream	2022	TM	TM/SCP	505.0 GWh/d
South Caucasus Pipeline / White Stream				Comment:	

Sponsors	General Information		NDP and PCI Information		
W-Stream Pipeline Company Ltd	80%	Promoter	White Stream Ltd	Part of NDP	No ((5) others - please comment below)
Georgian Oil and Gas Corporation (GOGC)	10%	Operator	White Stream	NDP Number	
		Host Country	Georgia	NDP Release Date	
M Bryza	10%	Status	Planned	NDP Website	
		Website	<u>Project's URL</u>	Currently PCI	No
				Priority Corridor(s)	SGC

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2011
Feasibility	09/2018	09/2019
FEED	10/2019	09/2020
Permitting	01/2020	12/2020
Supply Contracts		12/2020
FID		01/2021
Construction	06/2021	12/2022
Commissioning	2022	2022

	5
Third-Party Access Regin	ne
Considered TPA Regime	Regulated
Considered Tariff Regime	Negotiated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code Project Name
TRA-N-339 Trans-Caspian

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Supsa to Constanta	Offshore (for first stage / 16 bcma)	726	1,115	375	0
Vale to Supsa	Onshore	1,039	135		0
	Total		1,250	375	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

Expected Gas Sourcing

Caspian Region

Benefits				
Main Driver	Market Demand			
Main Driver Explanation	diversification of delivery routes (two entry points into EU) resulting in the reduction of perceived risk is important for such sizable supply source as Turkmenistan. For Germany and Austria White Stream also ensures lower transportation costs in comparison with the route via Turkey being advantageous for SEE. WS provides for internal diversification of routes within the Southern Gas Corridor in expectation of increased import needs for mentioned areas in the EU.			
Benefit Description	increased competition because of the highly competitive gas from Turkmenistan, improved security of gas supply because of the new source and new route and market integration because of enabling more competition even in Georgia (trade with the EU-internal market on swap basis).			

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Fina	ncial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	Yes
Comments	TEN-E in 2008 and 2009
General Comments	

Compressor station at Ambelia

TRA-N-1278	Project	Pipeline including CS	Non-FID
Update Date	31/10/2018		Non-Advanced
Description	The project consists in the installation of a new compressor station at Ambelia (in Central	Greece).	
PRJ Code - PRJ Name	_		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Kulata (BG) / Sidirokastron (GR)	DESFA S.A.	2022	GR	BGg/BGT	60.0 GWh/d
	DESFA S.A.	2022	BGg/BGT	GR	54.7 GWh/d

Sponsors	General Information	on	NDP and PCI Information		
DESFA S.A. 100%	Promoter	DESFA S.A.	Part of NDP	Yes (Draft Development Plan 2017-	
	Operator	DESFA S.A.	Tare of type	2026	
	Host Country	Greece	NDP Number	2.1.2.3	
	Status	Planned	NDP Release Date		
	Website	Project's URL	NDP Website	NDP URL	
		, and the second	Currently PCI	No	
			Priority Corridor(s)		

Schedule	Start Date	End Date	Third-Party Access Regime	
Pre-Feasibility			Considered TPA Regime	Regulated
Feasibility			Considered Tariff Regime	Regulated
FEED			Applied for Exemption	No
Permitting			Exemption Granted	No
Supply Contracts				
FID			Exemption in entry direction	0.00%
Construction			Exemption in exit direction	0.00%
Commissioning	2022	2022		

Current TYNDP: TYNDP 2018 FINAL - Annex A Page 396 of 641

Fulfilled Criteria

Specific Criteria Fulfilled

Specific Criteria Fulfilled Comments

Benefits

Main Driver Market Demand

Main Driver Explanation

Benefit Description

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No, we have not submitted an investment request yet, and we do not plan to submit it

Submissin Date

Decision Date

Website

Decision

Countries Affected

Countries Net Cost Bearer

Additional Comments

Financial Assistance

Applied for CEF (3) No, we have not applied for CEF No

Grants for studies

Grants for studies amount

Grants for works No

Grants for works amount

Intention to apply for CEF No decision yet taken

Other Financial Assistance

Comments

General Comments

No

Compressor station at Nea Messimvria

TRA-N-971	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Non-Advanced
Description	The project consists of the implementation of a 27 MW compressor station in order project is the second phase of development of project "TRA-N-941-Metering and Re		ion system to TAP. This
PRJ Code - PRJ Name	-		

Capacity Incremen	ts Variant For Mo	delling						
Point	A		Operator		Year Fro	m Gas System	To Gas System	Capacity
Nea Mesimvria			DESFA S.A.		2022	GR	GR/TAP	142.0 GWh/d
Sponsors			General Inf	ormation		NDP and	PCI Information	
			Promoter	DESFA S.A.	Part of ND	P No ((5) others - please	comment below)
			Operator	DESFA S.A.	NDP Numb	oer		
			Host Country	Greece	NDP Relea	se Date		
			Status	Planned	NDP Webs	ite		
			Website	<u>Project's URL</u>	Currently P	PCI		Yes (7.1.3)
					Priority Co	rridor(s)		SGC
Schedule	Start Date	End Date				Third-Par	ty Access Regime	
Pre-Feasibility					Considered	l TPA Regime		Regulated
Feasibility					Considered	l Tariff Regime		Regulated
FEED					Applied for	Exemption		Not Relevant
Permitting					Exemption	Granted		Not Relevant
Supply Contracts								
FID					Exemption	in entry directio	n	0.00%
Construction					Exemption	in exit direction		0.00%
Commissioning	2022	2022						

Pipelines and Compressor Stations	;			
Pipeline Section	Pipeline Comment	Diameter (mm)	Length Compressor Power (km) (MW)	Comissioning Year
Nea Messimvria to TAP			27	0
	Total		27	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply

Specific Criteria Fulfilled Comments

The possibility to inject gas from the various sources supplying the Greek transmission network to TAP, provides increased security of supply and commercial options to the customers connected to the grids supplied by TAP.

Expected Gas Sourcing

Caspian Region, LNG ()

	Benefits
Main Driver	Market Demand

Main Driver Explanation

Benefit Description

The project will enable TAP to acquire increased flexibility since gas quantities that might be delivered by TAP to intermediate destinations will be compensated by quantities delivered by DESFA to TAP.

	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance						
Applied for CEF	(3) No, we have not applied for CEF					
Grants for studies	No					
Grants for studies amount						
Grants for works	No					
Grants for works amount						
Intention to apply for CEF	No decision yet taken					
Other Financial Assistance	No					
Comments						
General Comments						

Commissioning

2021

2021

Compressor station at Nea Messimvria (3rd unit)

TRA-N-1276	Project	Pipeline including CS	Non-FID
Update Date	31/10/2018		Non-Advanced
Description	The project consists in the addition of a third turbocompressor unit at the existing Comress import capacity at the Northern (Sidirokastro) and Eastern (Kipi) import points	sor station of Nea Messimvria in c	order to increase the
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling						
Point	Operator		Year	From Gas System	To Gas System	Capacity
Kulata (BG) / Sidirokastron (GR)	DESFA S.A.		2021	BGg/BGT	GR	11.4 GWh/d
Sponsors	Ge	neral Information		NDP and	PCI Information	
	Promoter	DESFA S.A.	Part of	f NIDD	Yes (Draft Develop	ment Plan 2017
	Operator	DESEA S A	i dit Oi	INDI		2026

			Promoter	DESFA S.A.	Part of NDP	Yes (Draft Development Plan 2017-
			Operator	DESFA S.A.		2026)
			Host Country	Greece	NDP Number	2.1.2.9
			Status	Planned	NDP Release Date	
			Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>
					Currently PCI	No
					Priority Corridor(s)	
Schedule	Start Date	End Date			Third-P	arty Access Regime
Pre-Feasibility					Considered TPA Regime	Regulated
Feasibility					Considered Tariff Regime	Regulated
FEED					Applied for Exemption	No
Permitting					Exemption Granted	No
Supply Contracts						
FID					Exemption in entry direct	tion 0.00%
Construction					Exemption in exit direction	on 0.00%

Current TYNDP : TYNDP 2018 FINAL - Annex A Page 400 of 641

Fulfilled Criteria

Specific Criteria Fulfilled

Benefit Description

Specific Criteria Fulfilled Comments

	Benefits Control of the Control of t
Main Driver	Market Demand
Main Driver Explanation	

	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance						
Applied for CEF	(3) No, we have not applied for CEF					
Grants for studies	No					
Grants for studies amount						
Grants for works	No					
Grants for works amount						
Intention to apply for CEF	No decision yet taken					
Other Financial Assistance	No					
Comments						
General Comments						

Compressor Station Kipi

TRA-N-128	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Non-Advanced
Description	The project consists of a Compressor Station on the GR side of the GR/TK border ain in order to make possible the transmission of natural gas to the Greek and European Depending on the variant that will be implemented the configuration will be (1+1) x	n markets with the use of downstream to	ransmission systems.
PRJ Code - PRJ Name	-		

		case where TAP will be, from t	he beginning, connecte	ed to TANAP at the G	R/TR border, and	
	Variant : 103.20 GWh/d	IGB will be supplied by TAP th ones of neighbouring operato	erefore the C/S will sup			
Point		Operator	Year	From Gas System	To Gas System	Capacity
Kipi (TR) / Kipi (GR)		DESFA S.A.	2020	TRi	IB-GRk	54.4 GWh/d
				(Comment: 3 bcm/y	
Komotini (DESFA) Bottleneck		DESFA S.A.	2020	IB-GRk	GR	54.4 GWh/d
Komotini (DESF	-A) Bottleneck			(Comment: 3 bcm/y	
Capacity Incren	nents Variant(s) For Information Only					
	Variant : 206.40 GWh/d	case where TAP will be, from t IGB will be supplied by the DE system and the ones of neighb	SFA network therefore	the C/S will supply g		
Point		Operator	Year	From Gas System	To Gas System	Capacity
K; ; (TD) (K; ; (CD)		DESFA S.A.	2020	TRi	IB-GRk	157.8 GWh/d
Kipi (TR) / Kipi	(GK)				Comment: 6 bcm/y	

2020

2020

FID

Construction Commissioning 0.00%

0.00%

Current TYNDP : TY	NDP 2018 FINA	L - Annex A				Page 402 of 641
Sponsors				General Information	NDP a	and PCI Information
DESFA S.A.		100%	Promoter	DESFA S.A.	Part of NDP	Yes (Development Plan NNGS 2016-
			Operator	DESFA S.A.	Tare of 1421	2025)
			Host Country	Greece	NDP Number	2.2.1.3
			Status	Planned	NDP Release Date	
			Website	Project's URL	NDP Website	NDP URL
					Currently PCI	Yes (6.8.1)
					Priority Corridor(s)	NSIE
Schedule	Start Date	End Date			Third-	Party Access Regime
Pre-Feasibility					Considered TPA Regime	e Regulated
Feasibility					Considered Tariff Regim	ne Regulated
FEED					Applied for Exemption	No
Permitting					Exemption Granted	Not Relevant
Supply Contracts						

Exemption in entry direction

Exemption in exit direction

Pipelines and Compre	essor Stations					
	103.20 GWh/d	case where TAP will be, from the beginning, connected to TANAP at the GR/TR border, and IGB will be supplied by TAP therefore the C/S will supply gas to the DESFA system and the ones of neighbouring operators.				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Kipi			0	0	9	0
	Total			0	9	
Pipelines and Compre	essor Stations - Alternative Variant					
	206.40 GWh/d	case where TAP will be, from the beginning, connected to TANAP at the GR/TR border, and IGB will be supplied by the DESFA network therefore the C/S will supply gas to the DESFA system and the ones of neighbouring operators through IGB.				
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Kipi			0	0	18	0
	Total			0	18	
		Fulfilled Criteria				

Fulfilled Crite

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply

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Specific Criteria Fulfilled Comments

The C/S will increase the import capacity from Turkey in order to supply both the Greek System and the those of neighbouring countries and will allow the entry of new suppliers in the market that may supply gas at higher pressures without hindering the supply from Turkey.

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Caspian Region, Russia, LNG (), Other Central Asian, Middle Eastern and East-Mediterranean sources

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Main Driver Market Demand

Main Driver Explanation

Benefit Description

Decision Date

Countries Affected

Countries Net Cost Bearer Additional Comments

Website

Decision	No, we have not submitted an investment request yet, and we do not plan to submit i
Submissin Date	

Financial Assistance					
Applied for CEF	(3) No, we have not applied for CEF				
Grants for studies	No				
Grants for studies amount					
Grants for works	No				
Grants for works amount					
Intention to apply for CEF	No decision yet taken				
Other Financial Assistance	No				
Comments					
General Comments					

Current TYNDP : TYNDP 2018 FINAL - Annex A Page 408 of 641

EastMed Pipeline

TRA-N-330	Project	Pipeline including CS	Non-FID
Update Date	29/03/2018		Non-Advanced
Description	The EastMed project is an approximately 1900 km offshore/onshore pipeline project the to the European gas system. The project consists of 5 sections connecting the following areas: Levantine basin – Cyl The system will have a capacity of 320-350 GWh/d with the option to upgrade the capacase relevant reserves will be discovered in the offshore of Crete.	prus –Crete- Peloponnese –West Gree	ece-Thesprotia.
PRJ Code - PRJ Name	- /-		

Capacity Increments Variant For Modelling								
Point	Operator	Year	From Gas System	To Gas System	Capacity			
East Med / Crete (GR)	IGI Poseidon S.A.	2025	GRc	GR/EMD	190.0 GWh/d			
	IGI Poseidon S.A.	2025	GR/EMD	GRc	20.0 GWh/d			
East Med / Cyprus (CY)	IGI Poseidon S.A.	2025	GR/EMD	CY	30.0 GWh/d			
East Med / Cyprus/Israeli Production Field	IGI Poseidon S.A.	2025	NPcCY	GR/EMD	330.0 GWh/d			
East Med / Peloponnesus (GR)	IGI Poseidon S.A.	2025	GR/EMD	GR	90.0 GWh/d			
East Med / Thesprotia (Poseidon)	IGI Poseidon S.A.	2025	GR/IGI	GR/EMD	350.0 GWh/d			

Sponsors			General Information	NDP and PCI Information		
EastMed pipeline: from Crete to Peloponn IGI Poseidon SA	ese 100%	Promoter	Natural Gas Submarine Interconnector Greece-Italy Poseidon S.A	Part of NDP	No ((4) there is no obligation at national level for such a project to be part of the NDP)	
EastMed pipeline: from Cyprus to Crete IGI Poseidon SA	100%	Operator Host Country	IGI Poseidon S.A. Greece	NDP Number NDP Release Date		
EastMed pipeline: from Levantine Basin to IGI Poseidon SA	Cyprus 100%	Status Website	Planned <u>Project's URL</u>		Yes (7.3.1)	
EastMed pipeline: from Peloponnese to W IGI Poseidon SA	est Greece 100%			Priority Corridor(s)	SGC	
EastMed pipeline: from West Greece to Th with Poseidon)	esprotia (tie-in					

Schedule	Start Date	End Date
Pre-Feasibility	4	08/2012
Feasibility	05/2015	03/2018
FEED	11/2018	12/2020
Permitting	06/2018	06/2021
Supply Contracts		
FID		06/2021
Construction	06/2021	12/2024
Commissioning	2025	2025

100%

Third-Party Access R	egime
Considered TPA Regime	Not Applicable
Considered Tariff Regime	Not Applicable
Applied for Exemption	Not Ye
Exemption Granted	No
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code Project Name

IGI Poseidon SA

TRA-N-10 Poseidon Pipeline

Pipelines and Compressor Station	ns					
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
EastMed pipeline: section from Crete to Peloponnese		This offshore pipeline section is designed to transport 320 GWh/d of natural gas form the Levantine Basine and can be upgraded for further 190 GWh/d of natural gas from the offshore of Crete in case relevant reserves will be discovered.	660	421	120	0
EastMed pipeline: section from Cy	prus to Crete	This section of the project is related to the offshore pipeline between Cyprus and Crete.	660	732	100	0
EastMed pipeline: section from Le	vantine Basin to Cyprus	This offshore pipeline section will tansport 350GWh/d to Cyprus where it will deliver 30 Gwh/d for the internal consumption and the remaing 320GW/d will be exported to Greece via Crete.	610	165		0
EastMed pipeline: section from W	est Greece to Thesprotia	This offshore pipeline section is designed to transport 320 GWh/d of natural gas form the Levantine Basine and can be upgraded for further 190 GWh/d of natural gas from the offshore of Crete in case relevant reserves will be discovered.	1,070	236		0
EastMed: section from Peloponne	se to West Greece	This offshore pipeline section is designed to transport 320 GWh/d of natural gas form the Levantine Basine and can be upgraded for further 190 GWh/d of natural gas from the offshore of Crete in case relevant reserves will be discovered.	1,070	317		0
	Tot	tal		1,871	220	
		Fulfilled Criteria				
Specific Criteria Fulfilled		gration, Security of Supply, Sustainability				
Specific Criteria Fulfilled Commen	European gas network sys provides diversification of provided by enabling the along the whole gas chair available in the European	roject provides significant contribution to Market Integration a stem. Security of Supply The contribution of EastMed project to sources, routes and counterparts, providing solutions to the contribution of Cyprus, Crete and Western Greece. Competition, including among producers. The new gas will compete, to the markets, enhancing the benefits arising from a better diversification, contributing to displace power production from Coal a	to Security of disruption so The East Nate advantaged market.	of Supply cenarios. Med proje ge of the Sustainal	is particularly releval An additional benefic ect will enhance mark consumer, with all ex bility The EastMed pr	nt as it t will be et competition isting supplies oject will

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25/01/2018 **Grant Obtention Date**

Delay Since Last TYNDP

Thanks to the positive outcomes of the Pre-FEED activities, co-financed by European Commission trough CEF program, the promoter has **Delay Explanation** updated the project schedule increasing the accuracy of the next development activities.

Expected Gas Sourcing

Cyprus resources and offshore of Crete in case relevant gas reserves will be discovered and potentially Egypt.

Comments about the Third-Party Access Regime

The access regime will be defined at a later stage of the development activities

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Main Driver

Others

The primary objective of the Eastern Mediterranean Pipeline is to provide a permanent connection of the recently discovered gas reserves in the Levantine Basin with the European gas markets. The specific objectives to be achieved with implementation of the project are to: • exploit the proximity of the Levantine Basin gas fields to mainland Europe, to diversify the sources, routes and counterparts of the European gas supply with 10-16 bcm/year of Main Driver Explanation deliveries from new sources, which are wholly or partly produced within the EU; • integrate Cyprus with the European gas system, further promoting gas trading in the South Eastern Europe region; • promote the development of a gas trading hubs in Greece and in Italy, in connection with other Southern Corridor initiatives, facilitating gas exchanges in South Eastern Europe; • gasify regions of Greece that currently have no access to gas, such as Crete,

Peloponnese and Western Greece.

The dependence of the European Union on external gas supplies is continuously increasing, with indigenous production declining, leading to the need to diversify sources so as to strengthen security of the markets' supply, particularly in SEE. On the other hand, unlocking the recent discoveries in the Levantine Basin, including - referring to the sole Cyprus - the largest recent discovery of gas reserves in Europe, is particularly relevant for the development of the exploration and hydrocarbons in the whole East Mediterranean. Considering all the above, EastMed addresses the following main needs: • Increases security and diversification of gas supplies to Europe, as well as competition in line with the EU objectives to complete the internal energy market; • Contributes to the development of EU domestic gas resources, thus limiting the dependence on third countries • Secures access to gas sources strategically located for EU

Benefit Description

Barriers

Barrier Type Description A supportive political, fiscal and regulatory framework is necessary to secure the timely development of the EastMedProject. **Political**

It is going to be submitted a request to access CEF funds for feasibility studies

Financing

Intergovernmental Agreements						
Agreement	Agreement Description	Is Signed	Agreement Signature Date			
Memorandum of Understanding on cooperation in relation to EastMed Pipeline	MoU signed by Ministers of the Republic of Cyprus, the Hellenic Republic and the State of Israel and the Ambassador of the Italian Republic to Cyprus	Yes	05/12/2017			
Cyprus-Israel-Greece Trilateral Summit Declaration	Agreement to "to strengthen the cooperation between our three countries in order to promote a trilateral partnership in different fields of common interest and to work together towards promoting peace, stability, security and prosperity in the Mediterran"	Yes	28/01/2016			
Italiy-Greece-Cyprus-Israel Working Group		Yes	01/12/2016			

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

	Financial Assistance
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Grants for studies	Yes
Grants for studies amount	Mln EUR 4
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	No
Comments	The project has been awarded in 2015 with 2 M€ of CEF grants for the development activities related to Pre-FEED phase.
Comments	In 2018, a second CEF grant of 34.5M€ has been awarded to the project for the development activities related to FEED Phase.
General Comments	

PRJ Code - PRJ Name

Metering and Regulating Station at UGS South Kavala

TRA-N-1092	Project	Pipeline including CS	Non-FID
Update Date	29/10/2018		Non-Advanced
Description	The project consists of the implementation of one Metering and Regulating Station at Kava transmission system with the UGS in South Kavala.	ala for the potential interconnection	on of the Greek

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
	DESFA S.A.	2023	STcGR	IB-GRk	44.0 GWh/d	
UGS South Kavala (GR)			Comment: from storage to grid			
	DESFA S.A.	2023	IB-GRk	STcGR	55.0 GWh/d	
			Comment: Fi	rom grid to storage		

Sponsors		General Information		NDP and PCI Information		
DESFA S.A.	100%	Promoter	DESFA S.A.	Part of NDP	No ((5) others - please comment below)	
		Operator	DESFA S.A.	NDP Number		
		Host Country	Greece	NDP Release Date		
		Status	Planned	NDP Website		
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.20.3)	
				Priority Corridor(s)	NSIE	

Current TYN	NDP:	TYNDP	2018	FINAL	- Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2023	2023

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

Fulfilled Criteria			
Specific Criteria Fulfilled	Market Integration, Security of Supply, Sustainability		
	The project is a needed part of the Greek transmission system to allow its connection to the UGS of South Kavala promoted by others (Hellenic Republic Assets Development Fund - HRADF)		
	T. C. I.I.		

Т	ime :	Scl	nec

Grant Obtention Date
Delay Since Last TYNDP

Delay Explanation

The project schedule depends on the implementation of the UGS of South Kavala, promoted by others (HRADF). Therefore the completion date is indicative.

Expected Gas Sourcing

All sources of gas comprised in the Greek supply mix.

	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	The UGS projets will enhance SoS
Benefit Description	The enhancement of SoS will become more important as the penetration of natural gas in the residential sector of the still immature Greek gas market will increase.

Barriers

Barrier Type

Description

Others

The implementation of the project depends on the implementation of the UGS South Kavala.

	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit i
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance				
Applied for CEF	(3) No, we have not applied for CEF			
Grants for studies	No			
Grants for studies amount				
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	No decision yet taken			
Other Financial Assistance	No			
Comments				
General Comments				

Nea-Messimvria to FYRoM pipeline

TRA-N-967	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Non-Advanced
Description	The project consists of a pipeline from Nea-Messimvria to the GR/MK border allowing th	e supply of FYRoM by the Greek Ga	s Transmission System
PRJ Code - PRJ Name			

Point			Operator		Year From Gas System	To Gas System	Capacity
Stojakovo village (MK) / Pontoiraklia (GR)		DESFA S.A.	DESFA S.A.		MK	76.5 GWh/d	
Sponsors			General Ir	nformation	NDP and	PCI Information	
DESFA S.A.	1	100%	Promoter	DESFA S.A.	Part of NDP	Yes (Draft I	NDP 2017-2026)
1/4	V		Operator	DESFA S.A.	NDP Number		2.1.2.2
			Host Country	Greece	NDP Release Date		
			Status	Planned	NDP Website		NDP URL
			Website	<u>Project's URL</u>	Currently PCI		No
					Priority Corridor(s)		NSIE
Schedule	Start Date	End Date			Third-Par	ty Access Regime	
Pre-Feasibility					Considered TPA Regime		Regulated
easibility					Considered Tariff Regime		Regulated
EED					Applied for Exemption		No
Permitting					Exemption Granted		No
remitting							
J							
Supply Contracts					Exemption in entry direction	n	0.00%
Supply Contracts FID Construction					Exemption in entry direction		0.00% 0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment		ength ((km)	Compressor Power (MW)	Comissioning Year
Nea-Messimvria to Pontoiraklia/Stojakovo		700	50		0
	Total		50		

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply

Specific Criteria Fulfilled Comments

Expected Gas Sourcing

Caspian Region, LNG (DZ,WO)

		Benefits
Main Driver	Market Demand	
Main Driver Explanation	ion	
Benefit Description		

	Barriers

Barrier Type

Description

Market

Lack of market maturity

СВСА				
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it			
Submissin Date				
Decision Date				
Website				
Countries Affected				
Countries Net Cost Bearer				
Additional Comments				

Financial Assistance					
Applied for CEF	(3) No, we have not applied for CEF				
Grants for studies	No				
Grants for studies amount					
Grants for works	No				
Grants for works amount					
Intention to apply for CEF	No decision yet taken				
Other Financial Assistance	Yes				
Comments	DESFA has requested grants for construction from PA (Partnership Agreement for the Development Framework) 2014-2020. This programme uses resources originating from the European Structural and Investment Funds (ESIF) of the European Union. The requested amount is 14.48 million EUR. The decision from the competent authorities is pending.				
General Comments					

Current TYNDP : TYNDP 2018 FINAL - Annex A Page 429 of 641

Poseidon Pipeline

TRA-N-10	Project	Pipeline including CS	Non-FID			
Update Date	26/02/2018		Advanced			
Description	The Poseidon Pipeline project represents a valid "multi-source" option to complete the Southern Gas Corridor aiming to increase the EU security of supply. The current configuration of the project includes 2 sections entirely within the EU territory: i) 770km onshore crossing Greece from the border with Turkey to Thesprotia and ii) 210 offshore crossing the Ionian Sea up to the Italian landfall in Otranto. In its first phase, Poseidon pipeline would transport 10-12 Bcm/y of the available gas volumes at Turkish/Greek border, towards Italy and the southern Balkans. In its second development phase, the project capacity will be increased up to 20 Bcm/y allowing the flow of gas coming from Eastern Mediterranean region through EastMed pipeline, to which Poseidon pipeline will be connected in Thesprotia.					
PRJ Code - PRJ Name						

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
East Med / Thesprotia (Poseidon)	IGI Poseidon S.A.	2025	GR/EMD	GR/IGI	320.0 GWh/d
			Comment: 2nd phase		
Kipi (TR) / Kipi (GR)	IGI Poseidon S.A.	2022	TRi	IB-GRk	480.0 GWh/d
	IGI Poseidon S.A.	2025	TRi	IB-GRk	160.0 GWh/d
		Comment: 2nd phase			
Komotini (DESFA) - GR / IGB	IGI Poseidon S.A.	2022	IB-GRk	BG/IGB	95.0 GWh/d
	IGI Poseidon S.A.	2025	IB-GRk	BG/IGB	65.0 GWh/d
			Comment: 2nd phase		
Otranto - IT / IGI Poseidon	IGI Poseidon S.A.	2022	IB-ITs	GR/IGI	160.0 GWh/d
	IGI Poseidon S.A.	2022	GR/IGI	IB-ITs	380.0 GWh/d
	IGI Poseidon S.A.	2025	GR/IGI	IB-ITs	250.0 GWh/d
			Comment: 2nd phase		

Sponsors			G	General Information	NDP and PCI Information			
IGI POSEIDON S.A.		100%	Promoter	Natural Gas Submarine Interconnector Greece-Italy Poseidon S.A	Part of NDP	Yes (Piano decennale di sviluppo delle reti di trasporto di gas naturale 2017- 2026 (pag. 55, 56, 98))		
			Operator	IGI Poseidon S.A.	NDP Number	n.a.		
			Host Country	Greece	NDP Release Date	30/11/2017		
			Status	Planned	NDP Website	NDP URL		
			Website	<u>Project's URL</u>	Currently PCI	Yes (7.3.3)		
					Priority Corridor(s)	SGC		
Schedule	Start Date	End Date			Third-Party Access Regime			
Pre-Feasibility	I y				Considered TPA Regim	ne <i>Not Applicable</i>		
Feasibility					Considered Tariff Regi	me Not Applicable		
FEED	08/2017	01/2019			Applied for Exemption	Not Yet		
Permitting	08/2017	06/2019			Exemption Granted	Not Yet		
Supply Contracts								
FID		06/2019			Exemption in entry dir	ection 0.00%		
Construction	09/2019	09/2022			Exemption in exit direct	ction 0.00%		
Commissioning	2022	2025						
				Enabled Projects				

Enabled Projects

Project Code Project Name
TRA-N-330 EastMed Pipeline

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Poseidon offshore section		915	210	75	2022
Poseidon onshore section		1,220	770	75	2022
	Total		980	150	

Specific Criteria Fulfilled Comments

- 100		_ · · ·	
Fulfil	IACI	(rite	ria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The project creates the connection between the markets of Greece and Italy, enhancing connectivity and market integration, while promoting price convergence. Poseidon strengthens security of supply by promoting diversified sources of gas, potentially from the East Mediterranean, broadens the Southern Gas Corridor and provides reverse flow. Furthermore, by creating more liquidity the project will boost competition leading to more competitive and affordable prices in the markets concerned. The Poseidon pipeline furthers the EU's goal regarding the transition towards a low carbon economy by promoting the use of natural gas and contributing to the displacement of coal while constituting a valuable back up for renewables.

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP

Delay Explanation

As a result of project promoter decision to extend Poseidon pipeline up to the Turkish-Greek border, the project development timeline has been rescheduled.

Expected Gas Sourcing

Caspian Region, Russia, Cyprus and offshore Crete resources, coming through the EastMed pipeline.

Comments about the Third-Party Access Regime

The promoter has obtained for the initial configuration of Poseidon Project (offshore section), a TPA exemption for 89% of the forward flow capacity from Greece to Italy.

Benefits

Main Driver Market Demand

Main Driver Explanation

The Poseidon pipeline will provide valuable amounts of diversified sources of gas, leading to greater liquidity of the impacted markets, enhancing the competitiveness of prices. Other than Italy (as well as Greece through reverse flow) Poseidon, functioning in complementarity with the SNAM RETE GAS, Adriatica line will enable the delivery of gas to markets in North East Europe where its benefits will also be felt. While market demand is a key driver, the Poseidon pipeline, by allowing gas from the Southern Corridor to European markets, contributes fundamentally to security of supply.

Benefit Description

Through the promotion of diversification of sources, routes and counterparts, Poseidon serves to enhance energy security. In conjunction with the EastMed pipeline, it will enable the delivery of a completely new source, via a new route to reach markets, in Italy and beyond. Moreover, due to the reverse flow function, Poseidon will supply gas from Italy to the Greek system and thereby contribute decisively during disruption periods. As regards Italy, Poseidon creates a new entry point with firm capacity, enhancing the effectiveness of the N-I indicator. The new gas will also lead to greater market liquidity creating conditions for healthy gas trading. Via synergies with the Transitgas pipeline, these benefits and excess gas created can contribute to SoS in regions bordering NE and NW of Italy while SE European market conditions will also be positively influenced through the connection, via Greece, with these more developed, hub-based markets.

Intergovernmental Agreements									
Agreement	Agreement Description	Is Signed A	greement Signature Date						
Joint statement of the Italian Minister of Economic Development and the Turkish Minister of Energy and Natural Resources		Yes	01/11/2009						
Italy-Greece Intergovernmental Agreement		Yes	01/11/2005						
Memorandum of Understanding between Greece and Turkey		Yes	01/05/2010						
Protocol of Cooperation between Italy and Azerbaijan		Yes	01/12/2007						
Italy-Greece-Turkey Intergovernmental Agreement		Yes	01/07/2007						

	CBCA	Financial Assistance			
	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF		
Decision	and we have not yet decided whether we will submit or	Grants for studies	No		
Culturiania Data	not	Grants for studies amount			
Submissin Date		Grants for works	No		
Decision Date		Grants for works amount			
Website		Intention to apply for CEF	No decision yet taken		
Countries Affected		Other Financial Assistance	Yes		
Countries Net Cost Bearer Additional Comments		Comments	The Poseidon project has been awarded in 2010 with c.a. 5.5 M€ of EU grants through EEPR program (EEPR-2009-INTg-Poseidon), mainly for the technical development activities as Front-End-Engineering-Design and Design Appraisal and Certification for the project offshore section.		
		General Comments			

South Kavala Underground Gas Storage facility

UGS-N-385	Project Storage Facili	ty Non-FID
Update Date	29/10/2018	Non-Advanced
Description	The projects consists in converting the offshore depleted gas field of South Kavala to an Underground Gas Storage	e Facility.
PRJ Code - PRJ Name		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Hellenic Republic Asset Management Fund	2023	STcGR	IB-GRk	44.0 GWh/d
LICS South Kousla (CD)			Comment: fi	rom storage to grid	
UGS South Kavala (GR)	Hellenic Republic Asset Management Fund	2023	IB-GRk	STcGR	55.0 GWh/d
		Comment: from grid to sto			

Sponsors		General Information	NDP and PCI Information		
Hellenic Republic Asset Develpment Fund (HRADF) 100%		Promoter	Hellenic Republic Asset anagement Fund	Part of NDP	No ((3) the operators are not required to prepare and publish a NDP)
		Operator	Hellenic Republic Asset		
		Орегатог	Management Fund	NDP Release Date	
		Host Country	Greece	NDP Website	
		Status	Planned	Currently PCI	Yes (6.20.3)
		Website		Priority Corridor(s)	NSIE

Current	TYNDP:	: TYNDP 2	2018	FINAL -	Annex A
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Schedule	Start Date	End D	Date
Pre-Feasibility			
Feasibility			
FEED			
Permitting			
Supply Contracts			
FID			
Construction			
Commissioning	2023	2	2023

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I CCI II II Cai	Information (

		Multiple-cycle		Working	Withdrawal	Injection	Load Factor	Comments	Commisioning
Storage Facility	Storage Facility Type	Facility	Project Phase	Volume	Capacity	Capacity	(%)	Comments	Year
		raciiity	(mcm)	(mcm/d)	(mcm/d)	(70)		i eai	

South Kavala Depleted Field Yes

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP 2 years

Delay Explanation Decision on the procedure to select the project promoter and time needed to prepare the relevant tender procedure.

Expected Gas Sourcing

Caspian Region, Russia, LNG (?), The project may source gas from all gas sources supplying or transitting Greece

Comments about the Third-Party Access Regime

At the present stage of maturity of the project the tariff regime is not known. It is possible that the project capacity might be split into a part under regulated tariff and a part under negociated access.

Benefits Benefits							
Main Driver	Market Demand						
Main Driver Explanation							
Benefit Description	The project will enhance the national and regional (GR, BG, RO) security of supply and will help Users benefit from market oppportunities, especially in the LNG market. Given the proximity of the project location to the TAP route the benefits might also reach Italy.						

Barriers

Barrier Type Description

Market Lack of market maturity

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

Current TYNDP: TYNDP 2018 FINAL - Annex A Page 439 of 641

Trans Adriatic Pipeline

TRA-F-51	Project	Pipeline including CS	FID
Update Date	31/05/2018		Advanced
Description	Trans Adriatic Pipeline (TAP) will transport natural gas from Kipoi in Greece near the Greatly's southern Puglia region in the province of Lecce. TAP will interconnect with TANA secure access to the Shah Deniz natural gas field in Azerbaijan, and ties into Italy's gas province of Lecce. TAP's initial capacity is 10 bcm/a and it can expand its capacity up to capacity will be offered to the market via market tests, from no later than start of opera	P, which is linked further to the East w transportation grid operated by Snam 20 bcm/a, subject to binding market	vith systems in Turkey, to n Rete Gas in the demand. The expansion

PRJ Code - PRJ Name

Capacity Increments Variant For Modelling Operator Point Year From Gas System To Gas System Capacity Trans-Adriatic Pipeline AG 2019 TR/TNP 350.0 GWh/d **GR/TAP** Kipi (TR) / Kipi (TAP) Comment: GCV used for capacity calculations: 11.071 kWh/Sm3. Trans-Adriatic Pipeline AG 2019 **GR/TAP** BG/IGB 142.0 GWh/d Komotini - TAP / IGB Comment: GCV used for capacity calculations: 11.071 kWh/Sm3. Trans-Adriatic Pipeline AG 291.0 GWh/d 2019 AL/TAP IB-ITs Melendugno - IT / TAP Comment: GCV used for capacity calculations: 11.071 kWh/Sm3. GR Trans-Adriatic Pipeline AG 2019 **GR/TAP** 142.0 GWh/d Comment: GCV used for capacity calculations: 11.071 kWh/Sm3. This entry point is subject to the development of required facilities by the adjacent TSO. Trans-Adriatic Pipeline AG GR/TAP 2019 GR 142.0 GWh/d Nea Mesimyria Comment: GCV used for capacity calculations: 11.071 kWh/Sm3. 'ncremental capacity available for allocation is subject to a check of the system's capabilities and dependent on the capacity bookings in place.

Sponsors					General Information	NDP and PCI Information		
Snam			20%	Promoter	Trans Adriatic Pipeline AG	Part of NDP	No ((5) others - please comment below)	
BP			20%	Operator	Trans-Adriatic Pipeline AG	NDP Number		
				Host Country	Greece	NDP Release Date		
SOCAR			20%	Status	In Progress	NDP Website		
Fluxys			19%	Website	<u>Project's URL</u>	Currently PCI	Yes (7.1.3)	
Enagas			16%			Priority Corridor(s)	SGC	
Ахро			5%					
Schedule	Start Date	End Date				Thire	d-Party Access Regime	
Pre-Feasibility						Considered TPA Regin	me Negotiated	
Feasibility						Considered Tariff Reg	ime Negotiated	
FEED	01/2008	03/2013				Applied for Exemptio	n Yes	
Permitting	09/2011	05/2018				Exemption Granted	Yes	
Supply Contracts		04/2015						
FID		12/2013				Exemption in entry di	rection 100.00%	
Construction	05/2016	12/2019				Exemption in exit dire	ection 100.00%	
Commissioning	2019	2019						

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Main onshore section	90MW=45MW Kipoi+45MW Fier	1,200	773	90	0
Offshore section		900	105		0
	Total		878	90	

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply

Specific Criteria Fulfilled Comments Explanations enclosed.

Time Schedule

Grant Obtention Date 02/08/2017

Delay Since Last TYNDP

Delay Explanation N/A

Expected Gas Sourcing

Caspian Region

Comments about the Third-Party Access Regime

The initial capacity is exempted from TPA. Expansion capacity is subject to TPA and will be offered to the market via market tests, from no later than start of operations and subsequently every two years. In this regard, please note enclosed Annexes.

Benefits							
Main Driver	Market Demand						
Main Driver Explanation	Main Driver Explanation						
Benefit Description	TAP will contribute to the security and diversity of Europe's energy supply by connecting to existing gas networks and will allow gas to flow directly from the Caspian basin into European markets. TAP will be providing the necessary infrastructure to transport gas from the Shah Deniz field in Azerbaijan by the most direct route to Southern Europe.						

Intergovernmental Agreements								
Agreement	Agreement Description	Is Signed	Agreement Signature Date					
Host-government agreement between TAP and Greece	The HGA is designed to fill legal, regulatory and fiscal caviats to mitigate commercial risks and thereby provide the necessary investor protection to ensure that the project is built and enable construction and operation in accordance with high standards	Yes	26/06/2013					
Inter-ministerial agreement between Italy, Albania and Greece	An inter-ministerial agreement between Italy, Albania and Greece is required under Italian law to commence the TPA exemption application process in Italy.	Yes	27/09/2012					
Inter-governmental Agreements (only applicable for import pipeline projects	An IGA between Italy, Greece and Albania has formalized the state parties' support for the TAP project, ensure cross-country harmonization of standards in order to facilitate the implementation of TAP and provide the necessary investor protection measure	Yes	13/02/2013					
Host-government agreement between TAP and Albania	The HGA is designed to fill legal, regulatory and fiscal caviats to mitigate commercial risks and thereby provide the necessary investor protection to ensure that the project is built and enable construction and operation in accordance with high standards	Yes	05/04/2013					

	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance					
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision				
Grants for studies	Yes				
Grants for studies amount	Mln EUR 3				
Grants for works	No				
Grants for works amount					
Intention to apply for CEF					
Other Financial Assistance	No				
Comments					
General Comments	Regarding CEF, TAP project requested EUR 14 018 347 in 2016, amount which was granted. In 2017, TAP requested EUR 3 314 317, amount which was not granted. EIB funding does not qualify as a 'funding programme'.				

Compressor station 1 at the Croatian gas transmission system

TRA-F-334 Project Pipeline including CS FID
Update Date 22/02/2018 Advanced

Description

Construction of such facilities is necessary due to the opening of the gas market, as well as providing sufficient transmission capacities and natural gas delivery pressure conditions and for development of the gas market in Croatia and the neighbouring countries. Compressor stations will significantly increase efficiency of the Croatian gas transmission system. Compressor stations are integral part of the transmission system, integrated in the system, primarily in a manner to increase the flexibility of managing the existing transmission capacities of the system, and to provide rational increase of transmission capacities according to user needs, that is, the requirements of the market and to satisfy market conditions arising from the application of new legal regulation.

PRJ Code - PRJ Name

Capacity Increments Variant For	Modelling						
Point		Operat	or	Year	From Gas System	To Gas System	Capacity
Dravaszerdahely		Plinacro	o Ltd	2019	HR	HU	13.6 GWh/d
Sponsors			General Information		NDP and	PCI Information	
Plinacro	100%	Promoter	Plinacro Ltd	d Part o	of NDP		Yes (2018-2027)
		Operator	Plinacro Ltd	d NDP	Number		5.1
		Host Country	Croatio	7 NDP	Release Date		15/12/2017
		Status	Planned	d NDP	Website		NDP URL
		Website	<u>Project's UR</u>	<u>L</u> Curre	ently PCI		Yes (6.5.5)
				Priori	ity Corridor(s)		NSIE

Current TYND	P :	TYNDP	2018	FINAL	- Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	11/2014	03/2015
FEED		
Permitting	06/2015	05/2018
Supply Contracts		01/2018
FID		12/2017
Construction	01/2018	03/2019
Commissioning	2019	2019

TRA-N-86

TRA-N-1058

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

Project Code	Project Name
TRA-N-66	Interconnection Croatia -Bosnia and Herzegovina (Slobodnica- Bosanski Brod)
TRA-N-70	Interconnection Croatia/Serbia (Slobdnica-Sotin-Bačko Novo Selo)
TRA-N-90	LNG evacuation pipeline Omišalj - Zlobin (Croatia)
TRA-N-75	LNG evacuation pipeline Zlobin-Bosiljevo-Sisak-Kozarac

Interconnection Croatia/Slovenia (Lučko - Zabok - Rogatec)

LNG Evacuation Pipeline Kozarac-Slobodnica

Pipelines and Compressor Stations		
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissioning (mm) (km) (MW) Year
CS 1		4
	Total	4

Enabled Projects

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply, Sustainability

Construction of such facilities is necessary due to the opening of the gas market, wich will have an influence on the market integration. It will provide sufficient transmission capacities and natural gas delivery pressure conditions and for development of the gas market in Croatia and the neighbouring countries wich will have an influence on the Security of supply. Compressor stations will significantly increase efficiency of the Specific Criteria Fulfilled Comments Croatian gas transmission system. Compressor stations are integral part of the transmission system, integrated in the system, primarily in a manner to increase the flexibility of managing the existing transmission capacities of the system, and to provide rational increase of transmission capacities according to user needs, that is, the requirements of the market and to satisfy market conditions arising from the application of new legal regulation.

Benefits Main Driver **Regulation SoS** Main Driver Explanation Project will enable the reverse flow in all interconnection points. Construction of such facilities is neccessary due to the opening of the gas market, as well as providing sufficient transmission capacities and natural gas **Benefit Description** delivery pressure conditions and for development of the gas market in Croatia and the neighbouring countries. Compressor stations will significantly increase efficiency of the Croatian gas transmission system.

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or no
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financ	ial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	
Other Financial Assistance	No
Comments	
General Comments	

Ionian Adriatic Pipeline

TRA-N-68	Project	Pipeline including CS	Non-FID
Update Date	22/05/2018		Advanced
Description	The pipeline will cross the territory along the Adriatic coast from Fieri in Albania of Croatian gas transmission system (main direction Bosiljevo – Split). The Ionian-Adentire region. The IAP project is based on the idea of connecting the existing Croatine TAP gas pipeline system (Trans Adriatic Pipeline). An exit to Bosnia and Herze the project to TYNDP on behalf of Plinacro, Montenegro Bonus and Albgaz.	driatic Pipeline will have an influence on the atian gas transmission system, via Montene	gasification for the gro and Albania, with
PRJ Code - PRJ Name	- / ²		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Ionic-Adriatic Pipeline - IAP / AB	Plinacro Ltd	2023	HR/IAP	AL	33.3 GWh/d
Ionic-Adriatic Pipeline - IAP / ME	Plinacro Ltd	2023	HR/IAP	ME	16.6 GWh/d
	Plinacro Ltd	2022	HR	HR/IAP	83.2 GWh/d
Ionic-Adriatic Pipeline - IAP / Split - HR	Plinacro Ltd	2023	HR/IAP	HR	83.2 GWh/d
			Comme	nt: IT is Exit Croatia	1
	Plinacro Ltd	2023	IB-HRi/IAP	HR/IAP	166.5 GWh/d
Ionic-Adriatic Pipeline - IAP Entry		Comi	Comment: The Entry point is from TAP in Fieri		
	Plinacro Ltd	2023	AL/TAP	IB-HRi/IAP	166.5 GWh/d

Sponsors		General Information		NDP and PCI Information	
Albania		Promoter	Plinacro Ltd	Part of NDP	Yes (2018-2027)
Albgaz	100%	Operator	Plinacro Ltd	NDP Number	1.12, 1.25-1.27, 5.5
Croatia		Host Country	Croatia	NDP Release Date	15/12/2017
Plinacro	100%	Status	Planned	NDP Website	NDP URL
		Website	<u>Project's URL</u>	Currently PCI	No
Montenegro				Priority Corridor(s)	NSIW, SGC
Montenegro Bonus	100%			, - (-)	, , , , , ,

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		01/2008
Feasibility	05/2012	02/2014
FEED		
Permitting	07/2009	01/2023
Supply Contracts		
FID		01/2019
Construction	01/2020	01/2023
Commissioning	2022	2023

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

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
IAP - Croatian part	2.5 billion m3 yearly	800	250	1	0
IAP- Albanian part	1 billion m3 yearly	800	180		0
IAP- Montenego part	0.5 billion m3 yearly	800	110		0
	Total		540	1	
Pipelines and Compressor Stations - Alterna	tive Variant				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Shannon Pipeline	The pipeline is part of the core project and will connect the LNG terminal to the National Gas Grid.				

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Fulfil	lled	(rr	teria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

> Expected Benefits: - gasification of southern part of Croatia; Bosnia and Herzegovina, Montenegro, Albania - Reverse flow capacity introducing an environmentally acceptable energy source in the region (replacement for firewood, coal, fuel oil and complementary generation to renewable energy, and the potential for increased cogeneration and CHP) - providing diversified gas supply to the region - providing the

Specific Criteria Fulfilled Comments access to Croatian and Albanian storage capacities - providing significant transit capacity and income to Albania, Montenegro and Croatia. -Reducing CO2 emissions in the region - Security of Supply, Reverse flow, Integration of market areas (market integration benefits for Croatia and region (Albania, Montenegro, Bosnia and Herzegovina and neighbouring countries), diversification of sources, diversification of routes, N-1 criteria completion on national and regional level, support back-up to renewables

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP 2 years delay

Delay Explanation Dynamics of project implementation depends on the dynamics of TAP project implementation.

Expected Gas Sourcing

Caspian Region, LNG (HR)

Comments about the Third-Party Access Regime

TPA regime is not defined yet

	Benefits Programme Benefits
Main Driver	Others
Main Driver Explanati	ion Gasification of Albania and Montenegro and southern part of Croatia and Bosnia and Herzegovina. Diversification of supply, Security of Supply
Benefit Description	Security of Supply, Rewerse flow, Integration of market areas (market integration benefits for Croatia and region (Albania, Montenegro, Bosnia and Herzegovina and neighbouring countries), diversification of sources, diversification of routes, N-1 criteria completion on national and regional level, support back-up to renewables
	Barriers
Barrier Type	Description
Regulatory	Tarrifs which depends on the Business Model
Political	The pipeline passes by EU country and Non EU countries.
Financing	Availability of funds and associated conditions

Intergovernmental Agreements			
Agreement	Agreement Description	Is Signed	Agreement Signature Date
Memorandum of Understanding and Cooperation	signed by the Ministry of Energy and Industry of Republic of Albania, Ministry Foreign Trade and Economic Relations of Bosnia and Herzegovina, Ministry of Economy of the Republic of Croatia and Ministry of Economy of Montenegro	Yes	26/08/2016
Ministerial declaration	signed by the Ministries of enegry of Albania, Montenegro and Croatia, from dezember 2008, Bosnia and Herzegovina signed as well	Yes	27/09/2007
Letter of Itent	Signed by Plinacro, Montenegro Bonus and Albgaz	Yes	15/02/2018
Agreement to extend the Memorandum of Understanding	Signed between Plinacro and TAP	Yes	25/02/2014
Memorandum of Understanding	Signed between Plinacro and TAP	Yes	05/02/2011

CBCA			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not		
Submissin Date			
Decision Date			
Website			
Countries Affected			
Countries Net Cost Bearer			
Additional Comments			

Financial Assistance			
Applied for CEF	(3) No, we have not applied for CEF		
Grants for studies	No		
Grants for studies amount			
Grants for works	No		
Grants for works amount			
Intention to apply for CEF			
Other Financial Assistance	No		
Comments			
General Comments			

Városföld CS

TRA-N-123	Project	Pipeline including CS	Non-FID
Update Date	02/10/2018		Advanced
Description	An additional compressor unit (5.7 MW) at the existing compressor station at Városföld r	necessary to ensure adequate press	ure for the transportation

PRJ Code - PRJ Name -

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	FGSZ Ltd.	2022	HU	HUi	102.9 GWh/d
Versia MCT / FCC7		Comment: The increment s	ubject to ROHU Open	season final result	
Vecsés MGT / FGSZ	FGSZ Ltd.	2022	HUi	HU	25.9 GWh/d
		Comment: The increment s	ubject to ROHU Open	season final result	

Sponsors	General Information	NDP and PCI Information
FGSZ Ltd. 100%	Promoter FGSZ L	d. Part of NDP Yes (Hungarian TYNDP 2017)
	Operator FGSZ L	d. NDP Number 12.2.
	Host Country Hunga	y NDP Release Date 28/12/2017
	Status Plann	d NDP Website <u>NDP URL</u>
	Website <u>Project's U</u>	<u>PL</u> Currently PCI Yes (6.24.4.3)
		Priority Corridor(s) NSIE

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		06/2014
Feasibility	09/2016	07/2017
FEED	01/2019	01/2020
Permitting	10/2019	04/2020
Supply Contracts		05/2020
FID		03/2019
Construction	05/2020	10/2022
Commissioning	2022	2022

	- 3	
Third-Party Access Regime		
Considered TPA Regime	Regulated	
Considered Tariff Regime	Regulated	
Applied for Exemption	No	
Exemption Granted	No	
Exemption in entry direction	0.00%	
Exemption in exit direction	0.00%	

Enabled Projects

Project Code Project Name

TRA-N-377 Romanian-Hungarian reverse flow Hungarian section 2nd stage

	Total			6	
Városföld CS				6	0
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year

Fulfil	led	Criteria
ı anı	icu	CITCLI

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

The compressor help to increase capacity of Vecsés 4 (MGT>FGSZ), Vecsés 4 (FGSZ>MGT, Balassagyarmat (SK>HU) and Balassagyarmat (HU>SK).

Time Schedule

Grant Obtention Date 14/10/2015

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Black Sea

Benefits					
Main Driver	Market Demand				
Main Driver Explanation					
Benefit Description	o The Hungarian projects taken as a whole main aim, is to enhance the flexibility of the Hungarian transmission system by connecting to neighbouring systems, ensuring reserves flow availability, and guaranteeing flow deliverability which will enhance the transmission systems security of supply position along with helping with further market integration.				

	CBCA
Decision	Yes, we have submitted an investment request and have received a decision
Submissin Date	
Decision Date	06/10/2015
Website	
Countries Affected	Hungary, Romania
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance				
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision			
Grants for studies	Yes			
Grants for studies amount	Mln EUR 2			
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	No decision yet taken			
Other Financial Assistance	No			
Comments				
General Comments				

Vecsés-Városföld gas transit pipeline

TRA-N-831	Project	Pipeline including CS	Non-FID
Update Date	26/03/2018		Non-Advanced
Description	The aim of the project is to build a new bidirectional high pressure transit pipeline bet Interconnecton into south direction. The project contributes to develop the North-Sou and to diversificate the gas supply sources and transmission routes.		9
PRJ Code - PRJ Name	-		

Sponsors		General Information		NDP and PCI Information		
Magyar Gáz Tranzit ZRt. 10		100%	Promoter Operator	Magyar Gáz Tranzit Zrt. MGT Hungarian Gas Transit Ltd.	Part of NDP	Yes (National Development Plan - MGT 10 Year Development Plan)
			Host Country	Hungary	NDP Number	TRA-N-831
			Status	Planned	NDP Release Date	
			Website	Project's URL	NDP Website	NDP URL
				-	Currently PCI	Yes (6.2.14)
					Priority Corridor(s)	NSIE
Schedule	Start Date	End Date			Third	d-Party Access Regime
Pre-Feasibility					Considered TPA Regir	me Regulated
Feasibility					Considered Tariff Reg	ime Regulated
FEED					Applied for Exemption	n Yes
Permitting					Exemption Granted	Yes
Supply Contracts						
FID					Exemption in entry dir	rection 0.00%
Construction	03/2020	03/2022			Exemption in exit dire	ection 0.00%
Commissioning	2022	2022				

Pipelines and Compressor Stations						
Pipeline Section		Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Vecsés-Városföld		Pressure regulator at Vecsés node, hub and metering station at Városföld.,	800	80		0
	Total			80		

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply

Specific Criteria Fulfilled Comments

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

Expected Gas Sourcing

Norway, Russia, LNG (), Romania

_	enefits

Main Driver

Market Demand

Main Driver Explanation Security of Gas Supply New gas transit routes New gas sources Diversification of gas sources and routes

Benefit Description

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	Hot
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance				
Applied for CEF	(3) No, we have not applied for CEF			
Grants for studies	No			
Grants for studies amount				
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	Yes, for studies and works			
Other Financial Assistance	No			
Comments				
General Comments				

Shannon LNG Terminal and Connecting Pipeline

LNG-N-30	Project	LNG Terminal	Non-FID
Update Date	20/03/2018		Advanced
Description	Shannon LNG proposes to construct a liquefied natural gas (LNG) terminal on the so Shannon LNG also has obtained all of the major permits and consents for the LNG p export pipeline to the national gas grid, pipeline rights of way and foreshore leases at The Shannon LNG terminal is designed and permitted to export to the national gas gas. It is currently envisaged the project will have initial deliverability of 16.1 normal	roject including planning permission for and licenses. grid up to 26.8 million normal cubic met	the terminal and 26 KM
PRJ Code - PRJ Name	<u> </u>		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Sharman LNG	Shannon LNG	2022	LNG_Tk_IE	IE	86.0 GWh/d
Shannon LNG	Commen	t: Consistent with 2.8 bc	m/year under 'Type Sp	ecific Informatkon'	

Sponsors			General Information	NDP and PCI Information		
Shannon LNG Ltd	100%	Promoter	Shannon LNG Ltd	Part of NDP	Yes (Gas Networks Ireland 2017 Network	
		Operator	Shannon LNG		Development Plan)	
		Host Country		NDP Number	3.3	
		Status	Planned	NDP Release Date	15/12/2017	
		Website	Project's URL	NDP Website	<u>NDP URL</u>	
				Currently PCI	Yes (5.3)	
				Priority Corridor(s)	NSIW	

Current	TYNDP	TYNDP	2018	FINAL -	- Annex	Α

Schedule	Start Date	End Date
Pre-Feasibility		05/2006
Feasibility	05/2006	09/2007
FEED	11/2017	10/2018
Permitting	09/2007	12/2010
Supply Contracts		03/2018
FID		11/2018
Construction	11/2018	04/2022
Commissioning	2022	2022

Third-Party Access Regime	
Considered TPA Regime	Negotiated
Considered Tariff Regime	Negotiated
Applied for Exemption	Yes
Exemption Granted	Yes
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Technical Information (LNG)									
Regasification Facility	Reloading Ability	Project Phase	Expected Increme (bcm/y)	ent Ship Size (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)
Shannon LNG Limited	No	Initial	2.8	265,000	7.70	200,000		2022	100

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Shannon Pipeline	The pipeline is part of the core project and will connect the LNG terminal to the National Gas Grid.				0

Total

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments

Ireland, up to 2015, imported over 90% of gas from GB – and relied on GB infrastructure to meet the N-1 standard on a regional basis. Currently this dependence is about 40% because of Corrib gas coming on stream. However, by 2021, with the anticipated speedy decline in Corrib gas supply, Ireland's dependence will again rise above 75%. The Shannon LNG project, at full capacity, would allow Ireland to pass the N-1 test enhancing security of supply. The LNG terminal will also allow for serving the Northern Ireland gas market. An LNG terminal in Ireland will also mean that, in the long term, Ireland will have two major supply import routes (i) pipeline imports from GB and (ii) LNG imports through the Shannon LNG terminal providing additional sustainability and competition in the market. The Shannon LNG project will be the closest European import terminal to the US LNG export terminals, facilitating a new source of competitive gas supplies for Europe enhancing market integration.

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP 2 years

Delay Explanation Regulatory uncertainty, Low rate of return and lack of proper transposition of EU regulation.

Expected Gas Sourcing

LNG (LNG,QA,US), The United States is anticipated to be the main supply source, but the Promoter reserves the right to source outside the US

	Benefits
Main Driver	Regulation SoS
Main Driver Explanation	Ireland, up to 2015, imported over 90% of gas from GB – and relied on GB infrastructure to meet the N-1 standard on a regional basis. Currently this dependence is about 40% because of Corrib gas. However, by 2021, with the anticipated speedy decline in Corrib gas supply, Ireland's dependence will again rise to above 75% according to Gaslink Network Development Plan 2016. The Shannon LNG project, at full capacity, would allow Ireland to pass the N-1 test enhancing security of supply. The initial phase of the Shannon LNG project (16.1 mcm/d) will be capable of supplying approximately 60% of forecast Irish peak demand (26.6 mcm/d) for 2020/2021 The proposed LNG terminal will increase market integration and system flexibility by providing a new gas supply route to Ireland. The project will enhance Ireland's - and Europe's, long-term diversity of entry points by providing an entirely new supply source.
Benefit Description	The Shannon LNG project will enhance competition in the gas market in Ireland by providing a new supply source. The project supports reduction in emissions particularly in the power generation sector. The project can provide security and diversity of supply for Northern Ireland. Although, politically, Northern Ireland is part of the UK, there is a single Ireland/NI electricity market. A new source of gas in Ireland has potential to enhance West to East gas movement.
	Barriers
Barrier Type	Description
Regulatory	Lack of proper transposition of EU regulation
Regulatory	Low rate of return
Financing	Availability of funds and associated conditions

	CBCA	Financial Assistance				
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF			
Decision	but we do plan to submit it	Grants for studies	No			
Submissin Date	30/11/2018	Grants for studies amount				
Decision Date		Grants for works	No			
Website		Grants for works amount				
Countries Affected		Intention to apply for CEF	Yes, for work only			
Countries Net Cost Bearer		Other Financial Assistance	No			
	Shannon LNG did receive a CBCA decision in connection	Comments				
Additional Comments	with the early build of the Shannon Pipeline. The CBCA involved agreement by the CRU in Ireland, Utility Regulator in Northern Ireland and Ofgem in the UK.	General Comments				

Development for new import from the South (Adriatica Line)

TRA-N-7	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Non-Advanced
Description	The project consists in new on-shore pipeline and compressor station along the at new or existing Entry Points in south Italy.	e center-south of Italy that will allow the incre	ease of transport capacity
PRJ Code - PRJ Name	- /		

Capacity Increments Variant For Modelling							
Point		Oper	ator	Year	From Gas System	To Gas System	Capacity
Italy Mezzogiorno Import Fork	Snam Rete Gas S.p.A.		2025	IB-ITs	IT	264.0 GWh/d	
Sponsors	General Information		NDP and PCI Information				
Snam Rete Gas s.p.a.	100%	Promoter	Snam Rete Gas S.p.A	. Part c	of NDP Yes (Snam Rete Gas TY	NDP 2017-2026)
							D11 01

0	Promoter	Snam Rete Gas S.p.A.	Part of NDP	Yes (Snam Rete Gas TYNDP 2017-2026)
	Operator	Snam Rete Gas S.p.A.	NDP Number	RN_04
	Host Country	Italy	NDP Release Date	30/11/2017
	Status	Planned	NDP Website	NDP URL
	Website	<u>Project's URL</u>	Currently PCI	Yes (7.3.4)
			Priority Corridor(s)	SGC

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

Pipelines and Compressor Stations									
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year				
Adriatica Line		1,200	430	33	2025				
	Total		430	33					

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	The project fulfills also the criteria of diversification of sources, diversification of routes, N-1 National (Italy), back-up for renewables, power-to-gas, market Integration (Increase of competition) and flexibility of the system.

	Benefits
Main Driver	Market Demand
Main Driver Explanatio	n
Benefit Description	Security of supply, diversification of sources, diversification of routes, N-1 National (Italy), back-up for renewables, power-to-gas, market Integration (Increase of competition) and flexibility of the system.

	СВСА	
Decision	No, we have not submitted an investment request yet,	Applied for CE
200.5.011	and we do not plan to submit it	Grants for stud
Submissin Date		Grants for stud
Decision Date		Grants for wor
Website		Grants for wor
Countries Affected		Intention to ag
Countries Net Cost Bearer		Other Financia
Additional Comments		Comments
		General Comn

Financia	l Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	Yes
Comments	
General Comments	

GALSI Pipeline Project

TRA-N-12	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Advanced
Description	Gas pipeline project aiming to create a new link between Algeria and Italy via Sard transporting 8 billions mc of gas. From El Kala (Koudiet Draouche) in Algeria an of 2.800 m of depth getting to Porto Botte in Sardinia (which will be the entry point i Network). From Porto Botte an onshore section will cross Sardinia towards Olbia in finally bring the long awaited gas to Sardinian users and thus remove the isolation of the pipeline will cross the Tyrrhenian Sea at around 800 m of depth to get to Piexisting Rete Nazionale Gasdotti of Snam Rete Gas.	fshore section will cross the Mediterranean in the Italian RNG - Rete Nazionale Gasdott in the north of the island (with 39 offtake po in of Sardinia from RNG). From Olbia then a	n Sea going down to ti or Gas National pint along the route to nother offshore section
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Galsi S.p.A.	2019	DZ	DZi/GAL	258.0 GWh/d
Koudiet Eddraouch (Galsi) (DZ)		Com	ment: Entry of GALSI In Increment is equ	ternational Sectior uivalent to 8 bcm/y	
	Galsi S.p.A.	2019	ITs	ITn/GAL	258.0 GWh/d
Olleia (Cala))		Con	nment: Increment is equ	uivalent to 8 bcm/y	′
Olbia (Galsi)	Galsi S.p.A.	2019	ITn/GAL	ITs	32.0 GWh/d
			Comment: Equ	uivalent to 1 bcm/y	,
Discussions (Calab)	Galsi S.p.A.	2019	ITn/GAL	IB-ITs	226.0 GWh/d
Piombino (Galsi)			Comment: Equ	uivalent to 7 bcm/y	,
	Galsi S.p.A.	2019	DZi/GAL	ITs	258.0 GWh/d
Porto Botte (Galsi)		Сол	nment: Exit of GALSI In Increment is equ	ternational Sectior uivalent to 8 bcm/y	

Not Applicable Not Applicable Not Relevant Not Relevant

> 0.00% 0.00%

Sponsors			General Information	ND	P and PCI Information
Sonatrach	47%	Promoter	Galsi S.p.A.	Part of NDP	Yes (SNAM NDP 2017-2026 (page 98))
Edison SpA	23%	Operator	Galsi S.p.A.	NDP Number	n.a.
		Host Country	Italy	NDP Release Date	30/11/2017
Enel Produzione SpA	17%	Status	Planned	NDP Website	<u>NDP URL</u>
Hera SpA	11%	Website	<u>Project's URL</u>	Currently PCI	No
				Priority Corridor(s)	NSIW

Schedule	Start Date	End Date
Pre-Feasibility		12/2006
Feasibility	01/2006	12/2006
FEED	01/2007	12/2010
Permitting	07/2008	11/2018
Supply Contracts		11/2019
FID		11/2019
Construction	12/2019	12/2022
Commissioning	2019	2019

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
GALSI International Section	The GALSI International Section includes a compression station on the Algerian coast (3x33 MW) and a gas sealine from Algerian coast to South Sardinia coast (Porto Botte, near Cagliari)	660	288	99	0
GALSI Italian Section 1 onshore pipeline crossing Sardinia	The GALSI National Section will become integral part of the Italian National Gas Network, with the Entry Point located at the landfall of the sealine from Algeria in South Sardinia coast (Porto Botte). In Sardinia the project foresees 39 offtake points.	1,219	285		0
GALSI Italian Section 2 sealine Sardinia - Tuscany	This section includes a 285 km sealine from Olbia (Sardinia) - where it will be realized a 2x26 MW compression station - to Piombino (Tuscany) and 3 km onshore pipeline in Tuscany up to the interconnection with existing Snam gas newtwork.	812	288	52	0
To	tal		861	151	

- 101		_ ·. ·	
- Filltil	വ	Criteria	
I GIIII	ıcu	Circeila	

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The project will contribute to the creation of an Italian Gas Hub, by opening a more efficient route to reach the barycentre of Italian gas

Specific Criteria Fulfilled Comments demand and further on the Central EU market. It will give a significant contribution to security of supply and competition for Italy and Europe.

It represents a unique opportunity of a clean and sustainable energy source for Sardinia (and possibly for Corsica).

		Time Schedule
Grant Obtention Date	13/08/2010	
Delay Since Last TYNDP	12 months	
Delay Explanation		

Expected Gas Sourcing

Algeria

Comments about the Third-Party Access Regime

On 29th October 2010, the project has received from the competent Italian Authority (Ministry of the Economic Development) by decree a Priority Allocation right (Allocazione Prioritaria) of the entry capacity at the Porto Botte Entry Point, for 100% of the capacity and for a periofd of 25 years.

Agreement for Galsi project

	Benefits	7 01 0 1			
Main Driver	Market Demand				
Main Driver Explanation	The project has been developed from its start on the basis of the prospected timing of European gas demand growth.				
Benefit Description	- The Galsi project will improve security of supply in Italy and Europe, providing for a new and more efficient route for Algerian gas to reach the collaboration (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 probably strategic diversification of gas supply routes to European markets and their supply flexibility The Galsi project will contribute to the creation 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 oth European markets through the development of reverse flow capacities Reduction of GHG emissions; the Galsi project complies with sustainable development guidelines, i.e. the promotion of the substitution of high pollutant fo	ew ovide a cion of a ner			
	Barriers				
Barrier Type	Description				
Regulatory	The Italian Section of the project will be ruled under the Italian regulatory framework. The International Section (from Algeria to Italian territorial waters i Sardinia) will be build and operated by Galsi as an independent operator with a tariff agreed between the Company and shippers.				
Permit Granting	Permitting process (involved inter alia 2 regions, 9 provinces and 40 townships) substantially completed: environmental permits obtained in 2011 and Authorization Decree by the Ministry of the Economic Development needs only final approval of Tuscany.				
Market	The persistent uncertainties in the market scenarios make more complex the finalisation by the Shareholders of the commercial framework of the i.e. the definition of suitable terms and conditions for the gas supply and gas transportation agreements, which represents an essential piece for t investment decision.				
Financing	EEPR funds for 120 millions euros were granted by the European Commission with decision on 13th August 2010. This grant was then cancelled we decision on 26th September 2014. Future availability of new European Commission funds would be a key issue for the success of the project.	vith			
	Intergovernmental Agreements				
Agreement	Agreement Description Is Signed Agreement Signa	ature Da			
Italy – Algeria Inter-Gove	7 J 14/11/200	07			

and the commissioning of the Galsi Pipeline Project.

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or
	not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance				
Applied for CEF	(3) No, we have not applied for CEF			
Grants for studies	No			
Grants for studies amount				
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	No decision yet taken			
Other Financial Assistance	No			
Comments				
General Comments				

Matagiola - Massafra pipeline

TRA-N-1195	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Non-Advanced
II) Ascrintion	The new Matagiola - Massafra pipeline will allow the increment of the maximum capacincreasing the overall capacity of the system from the South.	city of the Puglia entry points up to 74	MScm/d without
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Melendugno - IT / TAP	Snam Rete Gas S.p.A.	2025	AL/TAP	IB-ITs	310.0 GWh/d
Otranto - IT / IGI Poseidon	Snam Rete Gas S.p.A.	2025	GR/IGI	IB-ITs	310.0 GWh/d

Sponsors			General Information	NI	OP and PCI Information
Snam Rete Gas S.p.A.	100%	Promoter	Snam Rete Gas S.p.A.	Part of NDP	Yes (Snam Rete Gas TYNDP 2017-2026)
7		Operator	Snam Rete Gas S.p.A.	NDP Number	RN_05
		Host Country	Italy	NDP Release Date	30/11/2017
		Status	Planned	NDP Website	<u>NDP URL</u>
		Website	<u>Project's URL</u>	Currently PCI	No
				Priority Corridor(s)	

Schedule	Start Date	End Date	Third-Party Access Regime
Pre-Feasibility			Considered TPA Regime Regula
Feasibility			Considered Tariff Regime Regula
FEED			Applied for Exemption
Permitting			Exemption Granted
Supply Contracts			
FID			Exemption in entry direction 0.0
Construction			Exemption in exit direction 0.
Commissioning	2025	2025	

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Matagiola - Massafra		1,400	80		2025
	Total		80		

Fulfilled Criteria

Specific Criteria Fulfilled

Specific Criteria Fulfilled Comments

	Benefits
Main Driver	Market Demand
Main Driver Explanation	on Control of the Con
Benefit Description	Security of supply, competitiveness, Flexibility of the system.

	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial A	ssistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	No
Comments	
General Comments	

Commissioning

2019

2019

TAP interconnection

TRA-F-1193	Project	Pipeline including CS	FID
Update Date	31/05/2018		Advanced
Description	The project is functional to connect the new TAP import infrastructure, scheduled to Brindisi.	arrive in Melendugno, with the existing	national network near
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	Snam Rete Gas S.p.A.	2019	AL/TAP	IB-ITs	509.0 GWh/d
Melendugno - IT / TAP	Comment: This project enab	oles the connection of	f the TAP entry point t	o the transmission	
				network	

Sponsors			General Information		NDP and PCI Information		
Snam Rete Gas s.p.a	. , /		100%	Promoter	Snam Rete Gas S.p.A.	Part of NDP	Yes (Snam Rete Gas TYNDP 2017-2026)
				Operator	Snam Rete Gas S.p.A.	NDP Number	RN_02
				Host Country	Italy	NDP Release Date	30/11/2017
				Status	Planned	NDP Website	NDP URL
				Website	<u>Project's URL</u>	Currently PCI	No
						Priority Corridor(s)	
Schedule	Start Date	End Date				Thi	d-Party Access Regime
Pre-Feasibility						Considered TPA Reg	ime Regulated
Feasibility						Considered Tariff Re	gime Regulated
FEED						Applied for Exemption	on No
Permitting						Exemption Granted	No
Supply Contracts							
FID						Exemption in entry d	irection 0.00%
Construction						Exemption in exit dir	ection 0.00%

Pipelines and Compressor Static	ons	
Pipeline Section	Pipeline Comment	Diameter Length Compressor Power Comissioning (mm) (km) (MW) Year
Tap Interconnection		1,400 55 2019
	Total	55

Fulfilled Criteria

Specific Criteria Fulfilled

Specific Criteria Fulfilled Comments

Benefits				
Main Driver	Market Demand			
	Snam rete gas received a First Request for access to the National Gas Pipeline Network in accordance with Resolution ARG/Gas 2/10 of the Italian Autorità di Regolazione per Energia Reti e Ambiente and with paragraph 8 of Chapter 5 of the Snam Rete Gas Network Code (Open season).			
Renetit Description	Security of supply, diversification of sources, diversification of routes, back-up for renewables, power-to-gas, market Integration (Increase of competition) and flexibility of the system.			

	CBCA
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

	Financial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	No
Comments	
General Comments	

LNG Terminal in Klaipeda

LNG-N-824	Project	LNG Terminal	Non-FID
Update Date	30/05/2018		Non-Advanced
Description	As this pilot action of 10 year lease turned to be a success story, Klaipedos nafta decided Terminal, i.e. exercise the purchase option available within the pilot action's existing TC of the substantial regional benefits already brought to the region and ensure the sustan security of supply, availability of alternative natural gas supplies, LNG break bulk infrast FSRU would also facilitate substantially lower regasification and reload tariffs and conscensumers in the region, as well as facilitate faster development of small and mid-scale polluting fuels.	CP contract. This long-term solution winability of future regional gas marke tructure and effective natural gas pricequentially lower the effective natural	vill ensure a consolidation t. The benefits include te cap. Purchase of the I gas price cap for all
PRJ Code - PRJ Name			

Point		Operato	or	Year	From Gas Syste	m To Gas System	Capacity
Klaipeda (LNG)		AB Klaipėdos Nafta		2024	LNG_Tk_LT	LT	122.4 GWh/d
Sponsors		General Information					
AB Klaipėdos Nafta	100%	Promoter	AB Klaipėdos Nafta	Part o	of NDP A	Io ((5) others - please	comment below)
		Operator	AB Klaipėdos Nafta	NDP	Number		
		Host Country	Lithuania	NDP	Release Date		
		Status	Planned	NDP	Website		
		Website	<u>Project's URL</u>	Curre	ently PCI		No
				Priori	ty Corridor(s)		BEMIP

Current TYNDP	: TYNDP 2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	11/2017	03/2018
FEED		
Permitting		
Supply Contracts		
FID		12/2020
Construction		
Commissioning	2024	2024

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

Technical Information (LNG)						
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 Comments LNG)	Commissioning Load Factor Year (%)	
FSRU Independence	Yes Purchase	3.7 160,000	10.20	170,000 -	2024 40	

Fulfilled Criteria						
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability					
Specific Criteria Fulfilled Comments	Enhanced security of natural gas supply Diversification of natural gas supply sources Full Third Party access Baltic States connection to the global gas markets Natural gas prices cap in the region LNG break bulk facility for the Baltic Sea Region Significant economic benefits created for the region					

Expected Gas Sourcing

LNG (LNG,NO,US,WO), Nigeria, Trinidad and Tobago

Comments about the Third-Party Access Regime

Tariff regulation created by Lithuania NRA and Parliament, which was also approved by EC -State aid SA.36740 (2013/NN) – Lithuania. All services of Klaipeda LNG terminal is regulated.

	Benefits					
Main Driver	Regulation SoS					
	Ensure certainty on the SoS in the region Without a project there is uncertainty on: - compliance with N-1 standard - competition of gas supply in the market - successful evolution of the regional gas market					
Benefit Description	Ensure certainty of independence from the single external natural gas supplier Ensure certainty of diversification of natural gas supply sources Ensure certainty to the regional gas market players and create real gas market ensuring natural gas supply in the Baltics The project is also driven by a market demand to have flexibility in choosing different sources of supply, to be connected with global market					
	Parriors					

	Barriers Control of the Control of t					
Barrier Type	Description					
Regulatory	Low or zero-priced short-term capacity					
Financing	Amortization rates					
Market	Lack of market maturity					
Market	Lack of market support					

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

Enhancement of Incukalns UGS

UGS-N-374	Project	Storage Facility	Non-FID
Update Date	21/11/2018		Advanced

The Incukalns Underground Gas Storage facility is the only gas storage of the East-Baltic region located within the EU. Reliable operation of Incukalns UGS is essential for the whole East-Baltic Region because considerable amount of gas in the region is used for heating, therefore, winter and summer consumption figures differ few times, and the storage is used for meeting of the gas demand during the heating season. The feasibility study revealed that beside using the storage as the seasonal storage there is high demand for flexible short term storage products and certain technical measures shall be implemented, which will lead to increasing of the daily withdraval capacity, thus improving significantly security of gas supply for the whole region. After construction of GIPL pipeline and Balticconector the market area for Incukalns will increase.

PRJ Code - PRJ Name

Description

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Inculsaling (IAA)	Conexus Baltic Grid	2020	STcLV	LV	30.0 GWh/d
Incukalns (LV)	Conexus Baltic Grid	2024	STcLV	LV	20.0 GWh/d

Sponsors		General Information		NDP and PCI Information		
JSC "Conexus Baltic Grid"	100%	Promoter	JSC "Conexus Baltic Grid"	Part of NDP	No ((5) others - please comment below)	
		Operator	Conexus Baltic Grid	NDP Number		
		Host Country	Latvia	NDP Release Date		
		Status	In Progress	NDP Website		
		Website	<u>Project's URL</u>	Currently PCI	Yes (8.2.4)	
				Priority Corridor(s)	BEMIP	

Current TYNDP:	TYNDP	2018 FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		02/2012
Feasibility	02/2017	11/2017
FEED	09/2019	04/2020
Permitting	05/2014	12/2020
Supply Contracts		03/2022
FID		06/2019
Construction	03/2014	12/2024
Commissioning	2020	2024

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

Enabled Projects

Project Code Project Name

TRA-N-382 Enhancement of Latvia-Lithuania interconnection (Latvian part)

TRA-N-1181 LNG terminal in Latvia with the connecting pipe

Technical Information (UGS)									
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)		(%)	Comments	Commisioning Year
Incukalns Underground Gas Storage	Aquifer	No	Inčukalns UGS	0	50.0	20.0	60	Preject is aimed at improvement of flexibility	2024

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	Project is extremely important for security of supply for the whole East-Baltic region. Since project contributes towards pressure increase in transmission system, which is essential for creation of the common market zone in the Baltic Countries and Finland, the project is of a key importance for market integration. Besides, by storing gas from different sources (pipeline and LNG) it contributes to the competition. Since technical activities provide for significant decrease of emissions it also contributes to the sustainability.

Time Schedule

Grant Obtention Date 19/05/2017
Delay Since Last TYNDP Two years

Delay Explanation Lack of financing and change in market conditions.

Expected Gas Sourcing

Russia, LNG ()

	Benefits
Main Driver	Market Demand
Main Driver Explanation	According to the 2017 feasibility study, the storage in the future will be more used for short term gas products and security of supply purposes. Short therm products will be used for LNG parking and power market peak demand. Regarding security of supply- the storage shall be divided as the strategic storage and storage with the filling requiremnts. After competion of GIPL and Balticconector it is expected that market area for the storage will also include Poland and Finland. Other drivers: - request of the market for availability of gas at short notice - increase of transmission system working pressure will allowing to transfer gas flow from GIPL; Klaipeda LNG to Estonia and through Baltic Connector to Finland
Benefit Description	Ending energy isolation - Transit route through Latvia facilitates gas flow in region that is currently isolated from rest of EU. In addition, the storage provide option to diminish single supplier impact on gas supply by providing gas source where gas from LNG or other EU suppliers can be stored and at the time of supply transferred to countries currently fully dependent on one source of supply. Implementation of internal energy market - Reliable operations of IGUS is essential to whole East-Baltic region especially in relation to the creation of the joint gas market for Baltic Countries whereas availability of flexible volumes of gas can significantly increase liquidity of gas flows, thus contributing to the integration of energy markets One of the key users of storage is electricity producer, providing practical possibility for industry coupling Promoting wholesale market development, facilitating price improvements. Increasing liquidity though immediately available gas in s

	Barriers							
Barrier Type	Description							
Others	Lack of socialization of costs in the Baltic Region							
Financing	Availability of funds and associated conditions							
Market	Lack of market maturity							

CBCA						
Decision	Yes, we have submitted an investment request and have received a decision					
Submissin Date	25/09/2018					
Decision Date	04/10/2018					
Website	<u>CBCA URL</u>					
Countries Affected	Latvia, Lithuania					
Countries Net Cost Bearer						
Additional Comments						

Financial Assistance					
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision				
Grants for studies	Yes				
Grants for studies amount	Mln EUR 0				
Grants for works	No				
Grants for works amount					
Intention to apply for CEF	Yes, for work only				
Other Financial Assistance	No				
Comments	We are planning to apply for financial support for works in 2018				
General Comments					

Skulte LNG

LNG-N-912	Project	LNG Terminal	Non-FID
Update Date	15/11/2018		Non-Advanced
	The purpose of the project is to build cost effective LNG FRII solution which will have directly	linked to Latvia Incukalns und	derground storage

Description

The purpose of the project is to build cost effective LNG FRU solution which will have directly linked to Latvia Incukalns underground storage facilities providing considerable flexibility and low price spread with European gas hubs

PRJ Code - PRJ Name

Capacity Increment	ts Variant For Mo	delling							
Point	A S			Operat	or	Year	From Gas System	To Gas System	Capacity
Skulte (LV)	Skulte (LV) AS Skulte LNG Terminal				2021	LNG_Tk_LV	LV	150.0 GWh/d	
Sponsors					General Information		NDP and	PCI Information	
Full project				Promoter	AS Skulte LNG Termina			l) there is no obliga	
Nacionala gazes te	rminala biedriba (l	National Gas	56%	Operator	AS Skulte LNG Termina	<i>l</i> Part	of NDP level	for such a project	to be part of the NDP)
Terminal Society)			3070	Host Country	Latvia	7 NDP	Number		NDP)
Peter Ragauss			16%	Status	Planned	1	Release Date		
Arnfinn Unum			16%	Website	<u>Project's URL</u>	_	Website		
SIA DIGAS			10%				ently PCI		No
SIA DIGAS			1070				ity Corridor(s)		BEMIP
Schedule	Start Date	End Date					Third-Par	ty Access Regime	
Pre-Feasibility	V.	03/2015				Cons	idered TPA Regime		Regulated
Feasibility	03/2015	05/2016				Cons	idered Tariff Regime		Regulated
FEED	06/2018	02/2019				Appli	ed for Exemption		No
Permitting	01/2019	03/2019				Exem	ption Granted		No
Supply Contracts		02/2020							
FID		03/2019				Exem	ption in entry directio	n	100.00%
Construction	03/2019	09/2021				Exem	ption in exit direction		100.00%
Commissioning	2021	2021							

Technical Information (LNG)									
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship (bcm/y) (r	Size Send-out capacity (mcm/d)	Storage capacity (m3 LNG)	Comments	Commissioning Year	Load Factor (%)		
FRU	Yes PreFeed	1.5 170	0,000 17.00	700,000	All LNG will be stored in UGS	2021	30		

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments Provides significant decrease/elimination of price spreads with European gas hubs

Time Schedule

Grant Obtention Date

01/08/2018

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

LNG ()

Benefits					
Main Driver	Market Demand				
Main Driver Explanation	Main Driver Explanation Existing import entry points in the region does not provide price convergence with European gas hubs				
Benefit Description	Benefit Description Low cost LNG terminal with direct link to UGS - provides felixibility of supply.				
	Barriers				
Barrier Type	Description				
Regulatory	Lack of proper transposition of EU regulation				
Market	Lack of market maturity				

	CBCA	Financial Assistance		
Decision	No, we have not submitted an investment request yet,	Applied for CEF	(3) No, we have not applied for CEF	
	but we do plan to submit it	Grants for studies	No	
Submissin Date	01/10/2018	Grants for studies amount		
Decision Date		Grants for works	No	
Website		Grants for works amount		
Countries Affected	Estonia, Finland, Latvia, Lithuania	Intention to apply for CEF	Yes, for studies and works	
Countries Net Cost Bearer	Estonia;#Finland;#Latvia	Other Financial Assistance	No	
Additional Comments		Comments		
		General Comments		

Melita TransGas Pipeline

TRA-N-31	Project Project	Pipeline including CS	Non-FID
Update Date	21/11/2018		Advanced
Description	The project addresses PCI 5.19 'Connection of Malta to the European Gas Network pipeline interconnection between Malta (Delimara) and Italy (Gela, Sicily) with a ca approximate length of 159 km (151 km offshore, 7 km onshore in Sicily and 1km of flow but its primary aim is to enable gas flows from Italy to Malta. The project will contribute to integration of the gas market and improved security of energy supplishipping. It will provide access to a potentially lower cost fuel for both power general affordability.	pacity of 2 bcm/year, diameter of 22" (DN ! nshore in Malta). The pipeline is being desi end Malta's isolation from the European ga y, given that presently the island depends o	560) and an gned for bi-directional as network and thus on LNG supply through
PRJ Code - PRJ Name			

Sponsors			Gen	eral Information	NDP and PCI Information	
	1		Promoter	Melita TransGas Co. Ltd.	Part of NDP	es (Malta National Reform Programme
			Operator	Melita TransGas Co. Ltd.		April 2017)
			Host Country	Malta	NDP Number	Section 4.3.2
			Status	Planned	NDP Release Date	30/04/2017
			Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>
					Currently PCI	Yes (5.19)
					Priority Corridor(s)	NSIW
Schedule	Start Date	End Date			Third	-Party Access Regime
Pre-Feasibility		04/2015			Considered TPA Regim	ne Regulated
Feasibility	04/2013	04/2015			Considered Tariff Regi	me Regulated
FEED	11/2018	03/2020			Applied for Exemption	No
Permitting	11/2017	07/2020			Exemption Granted	No
Supply Contracts		10/2021				
FID		07/2020			Exemption in entry dire	ection 0.00%
Construction	03/2023	05/2024			Exemption in exit direct	otion 0.00%
Commissioning	2024	2024				

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Delimara (Malta) to Gela (Sicily) Italy	Length of the pipeline interconnection has been updated following the results of the basic design study completed in June 2017.NOTE: With reference to the load factor figure of 22% of the pipeline stated in the PCI call submission below, it is to be note	560	159	0	2024
7	Total		159	0	
	Fulfilled Criteria				
	rannea entena				
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability				•
Specific Criteria Fulfilled Specific Criteria Fulfilled Comments	Competition, Market Integration, Security of Supply, Sustainability The project will contribute to market integration as it will eliminate Malta's isolation by Malta's security of energy supply and diversification of fuels by reducing the current distribution. The project will support objectives of sustainability as it will contribute.	lependence of ute to the reconsupport back will provide a	on import duction o k-up for r access to	ed fuel oils and LNG f GHG emissions by e renewable energy. It v a potentially lower co	supply eliminating the will contribute
	Competition, Market Integration, Security of Supply, Sustainability The project will contribute to market integration as it will eliminate Malta's isolation by Malta's security of energy supply and diversification of fuels by reducing the current of through shipping. The project will support objectives of sustainability as it will contribute need for liquefaction, shipping and regasification, as is the case with LNG use and will to diversification of import sources and thus enhance competition in Italy. In Malta, it	lependence of ute to the reconsupport back will provide a	on import duction o k-up for r access to	ed fuel oils and LNG f GHG emissions by e renewable energy. It v a potentially lower co	supply eliminating the will contribute
	Competition, Market Integration, Security of Supply, Sustainability The project will contribute to market integration as it will eliminate Malta's isolation by Malta's security of energy supply and diversification of fuels by reducing the current of through shipping. The project will support objectives of sustainability as it will contribute need for liquefaction, shipping and regasification, as is the case with LNG use and will to diversification of import sources and thus enhance competition in Italy. In Malta, it is power generation and potentially for the inland market sector thereby improving components.	lependence of ute to the reconsupport back will provide a	on import duction o k-up for r access to	ed fuel oils and LNG f GHG emissions by e renewable energy. It v a potentially lower co	supply eliminating the will contribute

Expected Gas Sourcing

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

Delay Explanation

Benefits

The gas pipeline interconnection will put an end to Malta's isolation from the European gas network and contribute to the integration of the Internal

General Comments

Main Driver

Others

Main Driver Explanation The main driver is the elimination of Malta's isolation from the European Gas network.

Energy Market; moreover the project shall: • Replace the importation of LNG for the production of electricity; • Contribute to the system's overall flexibility and interoperability in that it will offer the possibility of capacity for reverse flows in the future. • Complement the Energy Union's strategy towards the **Benefit Description** diversification of sources, routes and suppliers of natural gas. • Guarantee greater security of energy supply to the island; • Enable easier access to the natural gas resources at a lower cost for Malta; • Support objectives of sustainability as it will contribute towards the reduction of GHG (Greenhouse Gas) emissions by delivering natural gas more efficiently, eliminating the need for liquefaction, shipping and regasification, as is the case with LNG use for

electricity generation purposes.

CBCA No, we have not submitted an investment request yet, Decision but we do plan to submit it Submissin Date **Decision Date** Website Countries Affected Countries Net Cost Bearer **Additional Comments**

Financial Assistance				
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision			
Grants for studies	Yes			
Grants for studies amount	Mln EUR 4			
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	Yes, for studies and works			
Other Financial Assistance	Yes			
	(1) TEN-E Programme 2012 Call: 'Feasibility Study and cost-benefit analysis of a gas pipeline between Malta and Sicily' 2012-G215/12-ENER/12/TEN-ESI2.661346 Decision Nr C(2013) 8516 - Amount: 125,925 Eur			
Comments	(2) CEF Synergy Call of 2016: 'Technical Study and Cost-			
	Benefit Analysis for the Development of LNG as a Marine Fuel in Malta' Grant Agreement No: INEA/CEF/SYN/A2016/1338428; Action No: 2016-MT- SA-0005 - Amount : 600,000 Eur			

FSRU Polish Baltic Sea Coast

LNG-N-947	Project	LNG Terminal	Non-FID
Update Date	15/11/2018		Non-Advanced

The FSRU Polish Baltic Sea Coast project is planned as the first floating terminal in Poland. It will come on stream in 2022 with annual regasification capacity about 4.5 bcm/y. Terminal will consist of storage tanks with the capacity of approx. 165 tcm and other equipment to be used during the loading and reloading of LNG. The project will offer its regasification capacities to the gas consumers in Poland and other countries 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 Corridor via PL-CZ, PL-SK and PL-UA interconnections).

The implementation of the project supports the EU's efforts to reduce the sulfur content of marine fuels by ensuring LNG supplies for short and long-haul shipping (for bunkering service). The FSRU terminal also supports the development of alternative fuels infrastructure for both road and sea transport.

PRJ Code - PRJ Name

Description

Capacity Increments Variant For Modelling							
Point	Operator	Year	From Gas System	To Gas System	Capacity		
FSRU Polish Baltic Sea Coast	GAZ-SYSTEM S.A.	2022	LNG_Tk_PL	PL	138.0 GWh/d		

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

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	03/2017	01/2018
FEED	10/2018	05/2019
Permitting	10/2018	12/2019
Supply Contracts		05/2020
FID		05/2019
Construction	07/2020	06/2022
Commissioning	2022	2022

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

Technical Information (LNG)						
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 Comments LNG)	Commissioning Load Factor Year (%)	

FSRU Polish	Baltic Sea Coast	No

Expected	C	C	
EVNECTER	(Tas	Sourcing	1
LAPCELEG	Jus	Journal	4

	Benefits	
1ain Driver	Others	
Main Driver Explar	ation Project driver: SoS, market demand	
enefit Description		
	Barriers	
Barrier Type	Description Barriers	
Barrier Type Regulatory		

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

North - South Gas Corridor in Eastern Poland

TRA-N-245	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Non-Advanced
Description	The investment tasks within the project constitute essential elements of the planne Eastern Europe. The corridor covers Eastern Poland and is planned to be connected Poland – Slovakia Interconnection. Implementation of the project will allow for sign Eastern Poland towards PL-SK Interconnection and PL-UA Interconnection. This invalong the North-South axis. It will also enhance the access to the UGS Strachocina security of supply infrastructure in the CEE region. Hermanowice – Strachocina pipeline and Gustorzyn-Wronów pipeline are planned 2027.	I to two interconnectors, Poland – Ukraine nificant volumes of gas to be transported v estment plays a key role in the integration that have large expansion potential and n	e Interconnection and via the corridor in n with the CEE region nay serve as essential
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
	GAZ-SYSTEM S.A. 2022		DScPL	PL	0.0 GWh/d
Aggregated Distribution (PL)	Comment: The is an inte	rnal project which is p	lanned to be connecte	ed to PL-SK, PL-UA interconnections	

Sponsors			General Information	ND	P and PCI Information
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission
		Operator	GAZ-SYSTEM S.A.		System Development Plan 2018-2027)
		Host Country	Poland	NDP Number	N/A
		Status	Planned	NDP Release Date	
		Website	Project's URL	NDP Website	NDP URL
			,	Currently PCI	Yes (6.2.2)
				Priority Corridor(s)	NSIE

Current	TYNDP:	: TYNDP 2	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2022	2022

	9
Third-Party Access Regir	ne
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code	Project Name
TRA-N-621	Poland - Ukraine Gas Interconnection (PL section)
TRA-F-275	Poland - Slovakia Gas Interconnection (PL section)

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Gustorzyn-Wronów pipeline		1,000	316		0
Hermanowice-Jarosław pipeline		700	39		0
Hermanowice-Strachocina pipeline		700	72		0
Jarosław - Rozwadów pipeline		700	60		0
Rembelszczyzna-Wronów pipeline		1,000	135		0
Rozwadów-Końskowola-Wronów pipeline		700	103		0
	Total		725		

Specific Criteria Fulfilled Comments

_	101		A 1.	
- 11	Itil	IAA	Crite	ria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The project is an internal enabler for PL-SK and PL-UA interconnections. Its implementation will have an impact on: Market integration: - Creation of a well-integrated and functioning market in the CEE region. SoS: - Mitigation of exposure to supply disruptions in CEE countries; - Reduction of dependence on gas supplies from Russia in the CEE region; - Bringing new route for natural gas to the south-eastern part of Poland which has developed gas transmission system and storage facilities. Competition: - Reduction of price differences between the CEE and North-West regions; - Enhanced access to new sources of supply in the CEE region (LNG, NO supplies). d) Sustainability - Reduction of emissions in the CEE region by promoting natural gas in national economies.

Benefits				
Main Driver	Others			
Main Driver Explanation	n Regulation SoS, market demand			
Benefit Description	The project will allow to transport significant volumes of gas via PL-SK and PL-UA Interconnections. It will also enhance the access to the UGS Strachocina that have large expansion potential and may serve as essential security of supply infrastructure in the CEE region. Construction of the pipelines within this project, together with completion of the PL-SK Interconnection and PL-UA Interconnection, will have a positive impact on the competition in the CEE region, as the project will provide a possibility to open the market for more gas suppliers. This would in turn mean ending the state of major dependency on one single gas supplier for the countries in the respective regions thanks to the potential access to gas deliveries from new sources.			

Barrier Type	Description
Permit Granting	Efficient permitting procedures are necessary for timely implementation of the project.
Others	Due to the project drivers which are mainly related to SoS in Central-Eastern Europe, the project does not meet the criterion of economic viability, so the external co-financing is indispensable. Lack of external financial support may be a serious barrier in implementation.
Financing	Due to the project drivers which are mainly related to SoS in Central-Eastern Europe, the project does not meet the criterion of economic viability, so the external co-financing is indispensable. Lack of external financial support may be a serious barrier in implementation.

Barriers

Current TYNDP: TYNDP 201	8 FINAL - Annex A		Page 556 of 641
	СВСА		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF Grants for studies	(3) No, we have not applied for CEF No
Submissin Date		Grants for studies amount	
Decision Date		Grants for works	No
Website		Grants for works amount	
Countries Affected		Intention to apply for CEF	No, we do not plan to apply
Countries Net Cost Bearer		Other Financial Assistance	Yes
Additional Comments		Comments	Structural Funds (Operational Programme Infrastructure and Environment 2014-2020) - Hermanowice - Strachocina pipeline.
		General Comments	

North - South Gas Corridor in Western Poland

TRA-F-247	Project	Pipeline including CS	FID
Update Date	30/03/2018		Advanced
	The investment tasks within the project constitute assential elements of the planne	d North Couth ass interconnections in Co	ntral Eastern Furence

Description

The investment tasks within the project constitute essential elements of the planned North-South gas interconnections in Central-Eastern Europe. The corridor covers Western Poland and it is planned to be connected to PL-CZ Interconnection. Implementation of the investment tasks within this project will allow for exploiting full potential of gas transmission from LNG Terminal in Świnoujście and Baltic Pipe through the North-South gas corridor to other CEE countries. This infrastructure will be used for purpose of PL-CZ Interconnection.

PRJ Code - PRJ Name

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Aggregated Distribution (PL)	GAZ-SYSTEM S.A.	2020	DScPL	PL	0.0 GWh/d

Sponsors	General Information NDP and PCI Information		P and PCI Information		
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission
		Operator	GAZ-SYSTEM S.A.	Tare of ND1	System Development Plan 2018-2027)
		Host Country	Poland	NDP Number	N/A
		Status	Planned	NDP Release Date	
		Website	Project's URL	NDP Website	NDP URL
				Currently PCI	Yes (6.2.11)
				Priority Corridor(s)	NSIE

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	09/2013	08/2017
Permitting	11/2014	08/2017
Supply Contracts		
FID		11/2017
Construction		
Commissioning	2020	2020

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

Enabled Projects

Project Code Project Name

TRA-N-273 Poland - Czech Republic Gas Interconnection (PL section)

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Kędzierzyn				30	0
CS Odolanów				34	0
Kędzierzyn Node					0
Tworóg-Kędzierzyn Koźle pipeline		1,000	43		0
Zdzieszowice - Wrocław pipeline		1,000	130		0
Zdzieszowice-Kędzierzyn Koźle		1,000	19		0
	Total		192	64	

- 100		A	
Fulfil	II DA	(ritc	ris
			- 1

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The project is an internal enabler for PL-CZ interconnection. Its implementation will have an impact on: Market integration: - Creation of a well-integrated and functioning market in the CEE region. SoS: - Mitigation of effects resulting from supply disruptions in the CEE countries; - Reduction of dependence on gas supplies from Russia in the CEE region; - Enhanced security of supply with an improved supply link in the CEE specific Criteria Fulfilled Comments region to the European gas market, global LNG supplies, deliveries of gas from Norway. Competition: - Reduction of price differences between the CEE and North-West regions; - Enhanced access to new sources of supply in the CEE region (LNG, Norway, supplies from the EU market) that improves competition not only in PL but also in the whole CEE region. Sustainability - Reduction of emissions in the CEE region by

promoting natural gas in national economies.

Main Driver	Others
Main Driver Explanation	The project is driven by SoS and market demand considerations
Benefit Description	Implementation of the investment tasks within this project will allow for ensuring full functionality of PL-CZ Interconnection. This project will have an impact on: enhancing functionality of transmission system in Central and Southern Poland in order to facilitate better operational functioning of the upgraded PL-CZ Interconnection; increasing the security of supply sources, routes and counterparts, as well as on providing an overall flexibility for the CEE region; improving European gas grid interconnections; creating a well-functioning internal market in the CEE region by ensuring high reliability of the cross-border transmission between Poland and the Czech Republic.
	Barriers
Barrier Type	Description
Permit Granting	Efficient permitting procedures are necessary for timely implementation of the Project.
Others	Due to the project drivers which are mainly related to SoS in Central-Eastern Europe, the project does not meet the criterion of economic viability, so the external co-financing is indispensable. Lack of external financial support may be a serious barrier in implementation.

Benefits

urrent TYNDP : TYNDP 20	018 FINAL - Annex A		Page 560 of 641
	CBCA		Financial Assistance
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date	31/10/2013	Grants for studies	Yes
Decision Date	24/06/2014	Grants for studies amount	
Website	<u>CBCA URL</u>	Grants for works	No
Countries Affected		Grants for works amount	
Countries Net Cost Bearer		Intention to apply for CEF	
Additional Comments		Other Financial Assistance	Yes
			Structural Funds (Operational Programme Infrastructure and Environment 2014-2020): - Tworóg - Kędzierzyn-Koźle; - Zdzieszowice- Wrocław.
		Comments	Zdzieszowice- Wrocław: TEN-E: " Studies and preinvestment works related to the utilization and further development possibilities of the Interconnector Poland - Czech Republic"
		General Comments	

Upgrade of LNG terminal in Świnoujście

LNG-F-272	Project	LNG Terminal	FID
Update Date	15/11/2018		Advanced
Description	The project includes the extension of the regasification capacity from 5 bcm/y to 7 elements: - Additional submerged combustion vaporizers (SCVs); - Third LNG storage tank of min 160.000 cm LNG; - Second jetty; - Rail loading terminal; The terminal will provide for small scale services covering bunkering, reloading to so the expansion would entail increasing plant's regasification capacity and supply of through which the Polish LNG terminal could become a prominent reloading depot bunkering vessels with LNG.	smaller vessels, trans-shipment and rail load highly-specialized LNG reloading service f	ding. for smaller vessels,
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Culturalization	GAZ-SYSTEM S.A.	2023	LNG_Tk_PL	PL	76.6 GWh/d
Swinoujscie	Polskie LNG S.A.	2023	LNG_Tk_PL	PL	76.6 GWh/d

Sponsors			General Information	ND	P and PCI Information
Gas Transmission Operator GAZ-SYSTEM S.A.	100%	Promoter	GAZ-SYSTEM S.A.	Part of NDP	Yes (National Ten-Year Transmission
		Operator	Polskie LNG S.A.	Tare of IVDI	System Development Plan 2018-2027)
		Host Country	Poland	NDP Number	N/A
		Status	Planned	NDP Release Date	
		Website	Project's URL	NDP Website	NDP URL
			_ •	Currently PCI	Yes (8.7)
				Priority Corridor(s)	BEMIP

Current TYND	P :	TYNDP	2018	FINAL	- Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility	04/2015	12/2017
FEED	12/2017	06/2018
Permitting		
Supply Contracts		
FID		01/2018
Construction	06/2018	01/2023
Commissioning	2023	2023

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

		Technical Information (LN	IG)		
Regasification Facility	Reloading Ability Project Phase	Expected Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 Comments LNG)	Commissioning Load Factor Year (%)
LNG terminal in Świnoujście	No				

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	SoS - Diversification of supply sources, routes and counterparts by enhancing the access to the global LNG market; - Reduction of dependence on a single supply source in PL and other countries in the BEMIP region; - Mitigation of exposure to supply disruptions from the East in the BEMIP and CEE regions; - Development of small scale services that supply isolated gas systems. Competition - Reduction of price differences between the BEMIP and North-West regions. Sustainability: - Reduction of emissions in the BEMIP and CEE regions by promoting natural gas in national economies and LNG in the transport sector and the industry.

	Benefits
Main Driver	Others
Main Driver Explanatio	n Implementation of the project is driven by SoS and market demand considerations
	The extension of the LNG terminal in Świnoujście will have an impact on: increasing security of supply in the Baltic Sea and CEE regions by diversifying

Benefit Description

The extension of the LNG terminal in Świnoujście w supply routes, sources (new physical source of supply for both regions) and counterparts (access to global LNG market); 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 and possible leverage for market coupling potential in the Baltic Sea region and in Central-Eastern Europe. The LNG terminal in Świnoujście contributes to the NSI EAST corridor, as the supplies from Świnoujście may be directed through upgraded transmission system in Poland, PL-CZ PL-SK and PL-UA interconnections towards the CEE region.

	Barriers
Barrier Type	Description
Others	Possible lack of risk-taking in the private gas sector which would result in insufficient long term committments to enable the investment decision for the infrastructure operator. It could be mitgated by external susbisdies (EU) to cover positive externalities such as SoS, positive environmental impact (reduction of emissions due to fuel change in maritime transport) and supply diversification in the Baltic area and the CEE region (including Ukraine).
Regulatory	Capacity quotas
Regulatory	Low rate of return
Financing	Availability of funds and associated conditions
Market	Lack of market maturity

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

Azerbaijan, Georgia, Romania Interconnector - AGRI

LNG-N-376	Project	LNG Terminal	Non-FID
Update Date	26/03/2018		Non-Advanced
	The solution for the transmission of natural gas from Caspian region through th transportation via Black Sea to Romania and Hungary and potentially to other E		efaction and
	Romania and Hungary as EU Member State Support this project being involved	as shareholder in the project company (the	promoter of this project).
Description	As a "standby LNG project", AGRI will implement and operate the LNG portion: - the "natural gas the liquefaction Facilities") on Georgian Shore; - transport of LNG from Georgian shore to Romanian shore; - the "natural Re-gasification terminal" on Romanian Shore.		
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
ACRI / Constanta (RO)	AGRI	2026	GEa	RO	240.0 GWh/d
AGRI / Constanta (RO)			Comment: Regazification terminal		
ACDL (D. C. (CE)	AGRI	2026	TM/SCP	GEa	240.0 GWh/d
AGRI / Poti (GE)			Comment: Lic	quefaction termina	l

Specific Criteria Fulfilled Comments Diversification of supply sources

Sponsors				General Information			NDP and PC	CI Information	
SOCAR (AZ)		25%	Promoter	AGRI LNG Project	Company SRL (RO)	Part of NDP		here is no obligation r such a project to	
MVM (HU)		25%	Operator		AGRI	Turt of IVD	16761 101	sacri a project to	NDP)
ROMGAZ (RO)		25%			Romania	NDP Number			
GOGC (GE)		25%	<i>C.</i> .		Planned	NDP Release D	ate		
dode (dL)		2370	Website		Project's URL	NDP Website			
					•	Currently PCI			No
						Priority Corrido	r(s)		NSIE, SGC
Schedule	Start Date	End Date					Third-Party A	Access Regime	
Pre-Feasibility	y					Considered TPA	Regime	ı	Not Applicable
Feasibility	06/2012	04/2015				Considered Tari	ff Regime	ı	Not Applicable
FEED	01/2019	04/2020				Applied for Exe	mption		Not Relevant
Permitting	01/2018	09/2019				Exemption Gran	nted		Not Relevant
Supply Contracts		10/2022							
FID		11/2020				Exemption in er	ntry direction		0.00%
Construction	06/2022	08/2026				Exemption in ex	it direction		0.00%
Commissioning	2026	2026							
				Fechnical Information (LN	G)				
Regasification Facility	Reloa Abi	ding Project Phase llity	Expec	ted Increment Ship Size (bcm/y) (m3)	Send-out capacity (mcm/d)	Storage capacity (m3 (LNG)	Comments	Commissioning Year	g Load Factor (%)
AGRI - Regazification	Terminal N	lo AGRI		8.0 280,000	22.00	INITITI	2 ships of 140000	2026	80
				Fulfilled Criteria					
Specific Criteria Fulfill	ed C	Competition, Market	Integration, Securi	ty of Supply, Sustainability					

Time Schedule

Grant Obtention Date
Delay Since Last TYNDP

Delay Explanation longer process for deciding the next steps of the Project

Expected Gas Sourcing

Caspian Region, LNG (GE)

	Benefits					
Main Driver	Others					
Main Driver Explanation	Main Driver Explanation Diversification of supply sources; New Markets competition; Market demand					
Benefit Description	Benefit Description Links EU market with Azerbaijan (Caspian) gas source by the most direct route wich avoids sole reliance on pipelines.					
Barriers						
Barrier Type	Description					
Permit Granting	long duration for obtaining permits					
Market	Market market further integration with the local Project is required					
Financing	Availability of funds and associated conditions					
Market	Lack of market support					

			CBC	CA		
Decision					nent request ye ve will submit o	
Submissin [Date					
Decision Da	ate					
Website						
Countries A	Affected					
Countries N	let Cost Be	arer				
Additional	Comments					

Financial Assistance					
Applied for CEF	(3) No, we have not applied for CEF				
Grants for studies	No				
Grants for studies amount					
Grants for works	No				
Grants for works amount					
Intention to apply for CEF	Yes, for studies and works				
Other Financial Assistance	No				
Comments					
General Comments					

Depomures

UGS-N-233	Project	Storage Facility	Non-FID
Update Date	28/03/2018		Advanced
Description	The project consists in the revamping and expansion of an existing gas storage facinationale of the project is three fold (i) increase operational independence by building rented from another party (ii) gradually expand the storage capacity (from 300 mcm and (iii) increase flexibility of the storage by increasing injection and withdrawing camcm/day after implementation of the second stage. The implementation of the first stage has already been initiated with a partial investible development project is expected in 2018.	ing its own compression unit as currently in to 400 mcm in a first stage and to 600 in apacity from the existing average 1.7 mcm	compression services are mcm in a second stage) n/ day to approx. 5.0
PRJ Code - PRJ Name			

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
UGS Targu Mures	Depomures	2020	STcRO	RO	18.9 GWh/d
	Depomures	2020	RO	STcRO	18.9 GWh/d
	Depomures	2023	STcRO	RO	15.8 GWh/d
	Depomures	2023	RO	STcRO	15.8 GWh/d

Sponsors		General Information		NDP and PCI Information		
GDF International	59%	Promoter	Engie Romania SA	Part of NDP	No ((2) no NDP exists in the country)	
		Operator	Depomures	NDP Number		
		Host Country	Romania	NDP Release Date		
		Status	In Progress	NDP Website		
		Website	<u>Project's URL</u>	Currently PCI	Yes (6.20.4)	
				Priority Corridor(s)	NSIE	

Current TYNDP	: TYNDP 2018	FINAL - Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		06/2004
Feasibility	06/2008	06/2009
FEED	06/2011	06/2012
Permitting	06/2012	09/2017
Supply Contracts		12/2018
FID		06/2018
Construction	07/2015	03/2023
Commissioning	2020	2023

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

			Technical Infor	mation (UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)		(%)	Comments	Commisioning Year
Targu Mures	Depleted Field	No	Phase 1	100	1.8	1.8	100	N/A	2020
Targu Mures	Depleted Field	No	Phase 2	200	1.5	1.5	100	N/A	2023

Fulfilled Criteria
Competition, Market Integration, Security of Supply, Sustainability
Although the project meets all the criteria, the most significant contribution it brings is to the EU's security of supply The project is even nore important in a low infrastructure scenario, in which the N-1 indicator is below 100% and in which the additional storage capacity of
Depomures would partially compensate a malfunction at Mediesu-Aurit/ Isaccea gas entry point from Ukraine to Romania The remaining
lexibility indicator shows that the project successfully contributes to increasing resilience in case of additional demand in almost all scenarios vith impact on Romania, Bulgaria, Hungary, Italy, Greece and Croatia. The impact is most visible in extreme scenarios such as Ukraine
lisruption with 2 week cold spell The project contributes to a decrease of the disrupted demand in two Members States, namely Romania and Bulgaria, and also in the FYR of Macedonia (although not a Member State) in most scenarios.
n De le

Time Schedule

Grant Obtention Date

Delay Explanation

Delay Since Last TYNDP 3 years for Phase 2

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The main delay encountered is related to permit granting for part of the investment (i.e. the last sector of the main gathering pipeline). The construction of the main gathering pipeline was essential for the entire project and a pre-requisite for implementing the rest of the project (dehydration and compression station and subsequent expansion to 600 mcm of the capacity). The permit was eventually obtained at the end

of 2017.

Benefits			
Main Driver	Regulation SoS		
Main Driver Explanation	In addition to those mentioned in the additional comments to the specific criteria, the project is even more important in the current rather potentially unstable geo-political context in the far Eastern Europe in which having sufficient capacities of the gas storage facilities may become critical for ensuring security of supply both in Romania and the neighboring countries, particularly during the periods with high / peak demands.		
Benefit Description	Market Integration The Project successfully contributes to increasing resilience in case of additional demand in almost all disruption scenarios with positive impact on Romania, Bulgaria, Hungary, Italy, Greece and Croatia. Thus, indirectly it contributes to a more integrated gas market. Sustainability It replaces existing rather obsolete gas compression facilities with modern and high-efficiency technology (new electro-compressors etc.) which will reduce emissions currently generated by the compression services supplied by the third party. Competition The implementation of this project would also increase the competition on the Romanian storage market considering that currently there are only 2 players: Depomures, the private operator with ~10% market share and Romgaz, state owned, with ~90% market share. After project COD, the market share of the private sector would increase proportionally.		

	Barriers
Barrier Type	Description
Permit Granting	The permit granting process has been delayed due to difficulties in obtaining the building permit from local administration for the last section of the main collector pipeline, which eventually delayed the implementation of the entire project.
Regulatory	Low or zero-priced short-term capacity
Regulatory	Low rate of return
Financing	Availability of funds and associated conditions

СВСА				
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or			
	not			
Submissin Date				
Decision Date				
Website				
Countries Affected				
Countries Net Cost Bearer				
Additional Comments				

Financial Assistance					
Applied for CEF	(3) No, we have not applied for CEF				
Grants for studies	No				
Grants for studies amount					
Grants for works	No				
Grants for works amount					
Intention to apply for CEF	No decision yet taken				
Other Financial Assistance	No				
Comments					
General Comments					

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

TRA-F-358	Project	Pipeline including CS	FID
Update Date	15/11/2018		Advanced
Description	The project consists in the building of a gas transmission pipeline connecting the Podişand the construction of three gas compressor stations along the pipeline route (Jupa CS) • Podişor – Recaş 32" x 63 bar gas transmission pipeline approximately 479 km long; • three gas compressor stations (Podişor CS, Bibeşti CS and Jupa CS), each station being ensure bi-directional gas flow. After the implementation of the project the following transmission capacities will be enough towards Hungary: 1.75 bcm/year; • towards Bulgaria: 1.5 bcm/year.	S, Bibeşti CS and Podişor CS) as follow g equipped with two compressors, w	WS:
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Csanadpalota	SNTGN Transgaz S.A.	2019	RO	HU	50.6 GWh/d
Ruse (BG) / Giurgiu (RO)	SNTGN Transgaz S.A.	2019	RO	BGn	29.6 GWh/d

Sponsors		General Information		NDP and PCI Information		
SNTGN Transgaz S.A.	100%	Promoter	SNTGN Transgaz S.A.	Part of NDP	Yes (Development Plan for the National	
		Operator	SNTGN Transgaz S.A.		GTS 2017-2026)	
		Host Country	Romania	NDP Number	7.1	
		Status	In Progress	NDP Release Date	22/06/2017	
		Website	Project's URL	NDP Website	NDP URL	
				Currently PCI	Yes (6.24.1.2)	
				Priority Corridor(s)	NSIE	

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		12/2013
Feasibility	01/2014	12/2014
FEED	07/2015	02/2017
Permitting	01/2014	02/2018
Supply Contracts		08/2017
FID		11/2016
Construction	12/2017	12/2019
Commissioning	2019	2019

	3
Third-Party Access Regin	ne
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code Project Name

TRA-N-362 Development on the Romanian territory of the Southern Transmission Corridor

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Phase I: Podisor-Recas		800	479	28	2019
Podisor - Horia		1,626	1,056	100	
	Total		1.535	128	

Fulfilled Criteria

Specific Criteria Fulfilled Security of Supply

Specific Criteria Fulfilled Comments Phase I – Security of supply

Time Schedule

Grant Obtention Date 09/09/2016

Delay Since Last TYNDP Stage 1- 9 months delay in commissioning Stage 2 – 21 months in commissioning

Delay Explanation Phase I – on time. FID taken in November 2016. Comissioning in 2019

Expected Gas Sourcing

Caspian Region, LNG (), Black Sea

	Benefits					
Main Driver	Regulation SoS					
Main Driver Explanatio	n					
Benefit Description						

Barriers

Barrier Type Description

Regulatory

The Competent Authority to coordinate all permit granting processes is not yet functional in Romania.

	CBCA	Financial Assistance		
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision	
Submissin Date	12/10/2015	Grants for studies	Yes	
Decision Date	06/10/2015	Grants for studies amount	Mln EUR 2	
Website	<u>CBCA URL</u>	Grants for works	Yes	
Countries Affected	Hungary, Romania	Grants for works amount	Mln EUR 179	
Countries Net Cost Bearer	Hungary;#Romania	Intention to apply for CEF		
Additional Comments		Other Financial Assistance	No	
		Comments		
		General Comments		

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

TRA-N-1322	Project	Pipeline including CS	Non-FID
Update Date	21/06/2018		Advanced
Description	The project consists in the extension of the gas transmission pipeline constructed in GMS and the extension of the compressor stations, as follows: • Podişor – Recaş 32" x 63 bar gas transmission pipeline approximately 50 km long: • extension of the three gas compressor stations (Podişor CS, Bibeşti CS and Jupa G): • extension of the Horia GMS . After the implementation of the project the following transmission capacities will: • towards Hungary: 4.4 bcm/year; • towards Bulgaria:1.5 bcm/year.	g; CS) by mounting an additional compresso	
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Mc	odelling							
Point		Operator		Year	From Gas System	To Gas System	Capacity	
Canadaalata		SNTGN Transga	z S.A.	2022	HU	RO	78.1 GWh/d	
Csanadpalota		SNTGN Transgaz S.A.		2022	RO	HU	75.9 GWh/d	
Sponsors		Gener	al Information		NDP and	PCI Information		
SNTGN Transgaz SA	100%	Promoter	SNTGN Transgaz SA	Part c	Part of NDP		Yes (2017- 2026 TYNDP)	
		Operator	SNTGN Transgaz S.A.	NDP	Number		7.1	
		Host Country	Romania	NDP	Release Date		22/06/2017	
		Status	Planned	NDP	Website		NDP URL	
		Website		Curre	ntly PCI		Yes (6.24.4.4)	
				Priori	ty Corridor(s)		NSIE	

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		12/2013
Feasibility	01/2014	09/2015
FEED	07/2015	03/2018
Permitting	01/2016	
Supply Contracts		
FID		12/2018
Construction	01/2021	12/2022
Commissioning	2022	2022

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

Enabled Projects

Project Code Project Name

TRA-N-1268 Romania-Serbia Interconnection

TRA-N-362 Development on the Romanian territory of the Southern Transmission Corridor

Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Recaș - Horia		800	50	14	2022
	Total		50	14	

Fulfilled Criteria

Specific Criteria Fulfilled Comments Market Integration, Sustainability
Specific Criteria Fulfilled Comments Market integration, Sustainability, Competition

Time Schedule

Grant Obtention Date 18/05/2015

Delay Since Last TYNDP

Delay Explanation Due to the calendar of the Open Season procedure for IP Csandodpalota

Expected Gas Sourcing

Caspian Region, LNG (), Black Sea

Benefits				
Main Driver	Market Demand			
Main Driver Explanation				
Benefit Description				

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
	not	Grants for studies	Yes
Submissin Date		Grants for studies amount	Mln EUR 2
Decision Date		Grants for works	No
Website		Grants for works amount	
Countries Affected		Intention to apply for CEF	
Countries Net Cost Bearer		Other Financial Assistance	No
Additional Comments		Comments	
		General Comments	

Development on the Romanian territory of the Southern Transmission Corridor

TRA-N-362	Project	Pipeline including CS	Non-FID	
Update Date	28/02/2018		Advanced	
Description	The pipeline with a total length of approximately 308,2 km, is a telescopic pipeline made up of two sections and designed to transmit gas at a pressure of 63 bar. The two pipeline sections are: • Section I, Black Sea shore – Amzacea, with a length of 32,5 km, will have a diameter of Ø 48" (Dn1200); • Section II, Amzacea – Podişor, with a length of 275,7 km, will have a diameter of Ø 40" (Dn1000);			
PRJ Code - PRJ Name	- /			

Sponsors				General Information	NDP and PCI Information		
Α			Promoter	SNTGN Transgaz SA	Part of NDP	Yes (The National Gas Transmission	
SNTGN Transgaz SA	. /	100%	Operator	SNTGN Transgaz S.A.		System Development Plan 2017-2026)	
Default			Host Country	Romania	NDP Number	7.2	
MVM (HU)		25%	Status	Planned	NDP Release Date	22/06/2017	
			Website	<u>Project's URL</u>	NDP Website	<u>NDP URL</u>	
GOGC (GE)		25%			Currently PCI	Yes (6.24.4.5)	
ROMGAZ (RO)		25%			Priority Corridor(s)	NSIE	
SOCAR (AZ)		25%					
Schedule	Start Date	End Date			Thire	d-Party Access Regime	
Pre-Feasibility	N .	06/2014			Considered TPA Regin	me Regulated	
Feasibility	07/2014	01/2016			Considered Tariff Reg	gime Regulated	
FEED	06/2016	02/2018			Applied for Exemptio	n No	
Permitting	01/2015	05/2018			Exemption Granted	Not Relevant	
Supply Contracts							
FID		06/2018			Exemption in entry di	rection 0.00%	
Construction	01/2019	10/2020			Exemption in exit dire	ection 0.00%	
Commissioning	2020	2020					

Current TYNDP : TYNDP 2018 FINAL - Annex A Page 584 of 641

Enabled Projects

Project Code Project Name

TRA-F-358 Development on the Romanian territory of the NTS (BG-RO-HU-AT)-Phase I

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Black Sea shore - Podișor	The pipeline is telescopic, the diameter is reduced to 1,000 mm	1,200	308		2020
Т	otal		308		

Fulfilled Criteria

Specific Criteria Fulfilled Comments Security of Supply, Sustainability Specific Criteria Fulfilled Comments Security of supply, Market Integration, Sustainability, Competition

Expected Gas Sourcing

Black Sea

	Benefits			
Main Driver	Market Demand			
Main Driver Explanation	on			
- Increase of competition through the diversification of gas sources and transmission routes, and the emerging of new players on the regional gas market with positive effects on the gas price, decreasing thus market concentration for each impacted country; - Increase of sustainability through diminishing CO2 emissions, as a result of replacing gas with liquid (oil) or solid fossil fuels (coal) with higher CO2 emissions.				
	Barriers			
Barrier Type	Description			
Regulatory	Changes in national/EU legislation which may impact the implementation of the project.			
Permit Granting	Long and complicated process requiring also the obtaining of the right of way			
Financing	Availability of funds and associated conditions			

	СВСА
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or
	not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance				
Applied for CEF	(3) No, we have not applied for CEF			
Grants for studies	No			
Grants for studies amount				
Grants for works	No			
Grants for works amount				
Intention to apply for CEF				
Other Financial Assistance	No			
Comments				
General Comments				

Further enlargement of the BG—RO—HU—AT transmission corridor (BRUA) phase 3

TRA-N-959	Project Project	Pipeline including CS	Non-FID
Update Date	15/11/2018		Non-Advanced
Description	Development of gas transmission capacity on the Oneşti – Coroi – Haţeg – Nădlac co Sea shore or from other on-shore blocks. The development of this gas transmission corridor requires: the rehabilitation of some of the NTS existing pipelines; replacement of some of the NTS existing pipelines with new pipelines or the buildin development of 4 or 5 new compressor stations having a total installed power of ap	g of new pipelines installed in parallel	
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Connedualeta 2	SNTGN Transgaz S.A.	2023	HU	RO	128.7 GWh/d
Csanadpalota 2	SNTGN Transgaz S.A.	2023	RO	HU	128.7 GWh/d

Sponsors		General Information		NDP and PCI Information	
SNTGN Transgaz SA	100%	Promoter	SNTGN Transgaz SA	Part of NDP	Yes (The National Gas Transmission
		Operator	SNTGN Transgaz S.A.		System Development Plan 2017-2026)
		Host Country	Romania	NDP Number	7.5
		Status	Planned	NDP Release Date	22/06/2017
		Website		NDP Website	<u>NDP URL</u>
				Currently PCI	Yes (6.24.10.2)
				Priority Corridor(s)	NSIE

Current TYNDP: TYNDP 2018 FINAL - Annex A

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED		
Permitting		
Supply Contracts		
FID		
Construction		
Commissioning	2023	2023

	1 490 307 01 011
Third-Party Access Regi	me
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Onesti - Nadlac	existing pipelines + rehabilitation + new pipelines	813	843	82	2023
	Total		843	82	

Fulfilled Criteria

Specific Criteria Fulfilled Comments Market Integration, Security of Supply, Sustainability Specific Criteria Fulfilled Comments Market Integration, Security of Supply, Sustainability, Competition

Expected Gas Sourcing

Caspian Region, LNG (), Black Sea or other on-shore blocks

	Benefit	s
Main Driver	Market Demand	
Main Driver Explanat	ion	
Benefit Description		

	СВСА	
Decision	No, we have not submitted an investment request yet,	Applied for CEF
	but we do plan to submit it	Grants for studies
Submissin Date		Grants for studies an
Decision Date		Grants for works
Website		Grants for works am
Countries Affected		Intention to apply fo
Countries Net Cost Bearer		Other Financial Assis
Additional Comments		Comments
		General Comments

Financial Assistance						
Applied for CEF	(3) No, we have not applied for CEF					
Grants for studies	No					
Grants for studies amount						
Grants for works	No					
Grants for works amount						
Intention to apply for CEF	No decision yet taken					
Other Financial Assistance	No					
Comments						
General Comments						

Interconnection of the NTS with the DTS and reverse flow at Isaccea

TRA-N-139	Project	Pipeline including CS	Non-FID
Update Date	19/03/2018		Advanced
	The project consists in the following: • Phase I: - NTS Interconnection with the international gas transmission pipeline Transit - Repair works to the Dn 800 mm Cosmeşti - Oneşti pipeline (66,0 km).	1, in the area of the Isaccea metering station;	
Description	 Phase II: Upgrading and extension of the gas compressor station Siliştea; Upgrading the Gas compressor station Onești; Modifications inside the TN Siliştea and TN Onești Works in the TN Şendreni. 		
PRJ Code - PRJ Name	-		

Sponsors		General Information		NDP and PCI Information		
Transgaz 100%	Promoter	SNTGN Transgaz SA	Part of NDP	Yes (The National Gas Transmission		
	Operator	SNTGN Transgaz S.A.		System Development Plan 2017-2026)		
	Host Country	Romania	NDP Number	7.3		
	Status	Planned	NDP Release Date	22/06/2017		
	Website	Project's URL	NDP Website	NDP URL		
		-	Currently PCI	Yes (6.24.10.1)		
			Priority Corridor(s)	NSIE		

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		12/2013
Feasibility	12/2016	04/2017
FEED	05/2017	06/2018
Permitting	03/2017	07/2018
Supply Contracts		
FID		06/2018
Construction	12/2018	12/2019
Commissioning	2019	2019

	9
Third-Party Access Regin	ne
Considered TPA Regime	Regulated
Considered Tariff Regime	Regulated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code Project Name

TRA-N-959 Further enlargement of the BG—RO—HU—AT transmission corridor (BRUA) phase 3

Fulfilled Criteria

Specific Criteria Fulfilled Market Integration, Security of Supply, Sustainability Specific Criteria Fulfilled Comments Security of supply, Market Integration, Sustainability

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP 12 months

Delay Explanation

Expected Gas Sourcing

Black Sea

		Benefits	
Main Driver	Regulation-Interroperability		
Main Driver Explanat	ion		
Benefit Description			

Barriers				
Barrier Type	Description			
Regulatory	The Competent Authority to coordinate all permit granting processes is not yet functional in Romania.			
Permit Granting	The permitting process is long and complicated			
Financing	Availability of funds and associated conditions			

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

New NTS developments for taking over gas from the Black Sea shore

TRA-N-964	Project	Pipeline including CS	Non-FID
Update Date	09/03/2018		Advanced
Description	The project consists in the construction of a new 25 km pipeline from the Black Sea shore up of DN 500 and a design pressure of 55 bar.	to the international transit pipeli	ne T1 with a diameter
PRJ Code - PRJ Name	-		

Sponsors			General Information		NDP and PCI Information		
SNTGN Transgaz S	SA	100%	Promoter	SNTGN Transgaz SA	Part of NDP Yes (The National Gas Transmissi		
	7		Operator	SNTGN Transgaz S.A.	r are or repr	System Development Plan 2017-2026)	
			Host Country	Romania	NDP Number	7.6	
			Status	Planned	NDP Release Date	22/06/2017	
			Website		NDP Website	<u>NDP URL</u>	
					Currently PCI	Yes (6.24.10.3)	
					Priority Corridor(s)	NSIE	
Schedule	Start Date	End Date			Third-Party Access Regime		
Pre-Feasibility		09/2016			Considered TPA Regin	ne Regulated	
Feasibility	10/2016	05/2017			Considered Tariff Regi	me Regulated	
FEED	08/2017	01/2018			Applied for Exemption	No No	
Permitting	03/2017	12/2017			Exemption Granted	No	
Supply Contracts		10/2018					
FID					Exemption in entry dir	ection 0.00%	
Construction	11/2018	07/2019			Exemption in exit direct	ction 0.00%	
Commissioning	2019	2019					

Enabled Proj	ects
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Project Code	Project Name
TRA-N-959	Further enlargement of the BG—RO—HU—AT transmission corridor (BRUA) phase 3
TRA-N-357	NTS developments in North-East Romania
TRA-N-139	Interconnection of the NTS with the DTS and reverse flow at Isaccea

Pipelines and Compressor Stat	tions				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Vadu-Gradina		508	25		2019
	Total		25		

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

Specific Criteria Fulfilled Comments Market integration, SoS, Sustainability, Competition

Expected Gas Sourcing

Black Sea

Benefit Description

	Benefits
Main Driver	Market Demand
Main Driver Explanatio	n

	CBCA	
Decision	No, we have not submitted an investment request yet,	Appl
	and we do not plan to submit it	Gran
Submissin Date		Gran
Decision Date		Gran
Website		Gran
Countries Affected		Inten
Countries Net Cost Bearer		Othe
Additional Comments		Com
		Gene

Financ	ial Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No, we do not plan to apply
Other Financial Assistance	No
Comments	
General Comments	

Sarmasel undeground gas storage in Romania

UGS-N-371	Project	Storage Facility	Non-FID
Update Date	01/08/2018		Non-Advanced
Description	Sarmasel Underground Storage in Romania consists in the increase of working capacity of 0.65 Bcm/cycle, an enhanced withdrawal capacity of up to 10 million cm/day and an increase of the required investment consists of: - construction of one more compressor module, - refurbishment of surface infrastructure for all injection-withdrawal wells; - recompletion of all wells and installation of safety devices for each of them; - drilling new additional wells; - increasing the cushion gas. The geological suitability is backed up by existing reservoir studies. The rationale of the project is to: (a) decongest existing storage capacities in South Roma (b) increase the flexibility of the storage system, contribute to the sustainability and flexil Russian gas etc.	reased injection rate of up to 10 mill	ion cm/day.
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling							
Point	Operator		Year	From Gas System	To Gas System	Capacity	
UGS Sarmasel	S.N.G.N. Ro	mgaz S.A.	2024	STcRO	RO	34.0 GWh/d	
OGS Sarmaser	S.N.G.N. Romgaz S.A.		2024	RO	STcRO	42.0 GWh/d	
Sponsors	General Information			NDP and PCI Information			
SNGN ROMGAZ S.A. 100%	Promoter	Societatea Națională de Gaze Naturale ROMGAZ S.A.		NDP No (No (((5) others - please (comment below)	
	Operator	S.N.G.N. Romgaz S.A.	NDP R	elease Date			
	Host Country	Romania	NDP Website				
	Status	Planned	Currer	ntly PCI		Yes (6.20.6)	
	Website	<u>Project's URL</u>	Priority	y Corridor(s)		NSIE	

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		06/2016
Feasibility	05/2018	05/2019
FEED	08/2019	06/2020
Permitting	06/2019	08/2020
Supply Contracts		12/2020
FID		10/2020
Construction	02/2021	10/2024
Commissioning	2024	2024

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

Technical Information (UGS)									
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor	Comments	Commisioning Year
UGS SARMASEL	Depleted Field	No	Sarmasel underground gas storage in Romania	650	3.2	4.0	70	This is a one phase project. Expected Load Factor to be updated by the Feasibility Study	2024

Fulfill	led	Criteria

Specific Criteria Fulfilled Market Integration, Security of Supply

Specific Criteria Fulfilled Comments

TYNDP views RO as gas source during 2020-2030, but afterwards there is major impact on RO: (1) Disruption Rate doubling from 10% to 20% in case of UA import route disruption, and (2) N-1 which cannot be fulfilled anymore, dropping to 83% for Low Infrastructure and to 85% for Adv. Infra. CBA assessment shows cross-border impact of the Sarmasel storage on SE Europe in terms of security of supply, in case of UA route disruption for all neighbouring countries: BG, HU, RS. CBA results show that irrespective of the geographical location of the storage or the distance to transit lines or the interconnection systems between countries, there is an impact on neighbouring countries through the transmission system in case of UA disruption. There is an impact of the project between 2and 4 % on DR for all scenarios and type of infrastructure. On N-1 the project impact varies between 3-4 % in 2030. It provides stability and flexibility to the entire transmission system, as shown in RO TSO NTS Dev Pl.

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP FID has changed from Q1 2018 to 01/01/2019

Delay Explanation

The commissioning deadline was changed to 2024. The change occurred due to:(a) the need to correlate the development of storage system with NTS development directions (stages of NTS and interconnections HU, BG and RS, changes in the status of transit lines, clarifications on gas sources for the entire NTS), (b) upcoming monetisation of Black Sea developments, (c) the impact on the financial results generated from the evolution of the gas price on the market which caused a drop in storage services demand..

Expected Gas Sourcing

Romania

	Benefits					
Main Driver	Regulation SoS					
Main Driver Explanation	The project aims at supplying directly or indirectly at least two Member States and although it meets the competition, market integration, security of supply and sustainability criteria, the project's main contribution is to the European security of supply, given its complementarity to future major pipeline projects in Romania developed by SNTGN Transgaz S.A creating on one hand interconnections with the NTS of neighboring Member States (HU and BG) and on the other hand access to the newly discovered gas resources in the Black Sea, which are expected to be monetized soon.					
Benefit Description	Its main regional benefits are: (a) decongestion of existing storage capacities in South Romania which may become available for neighboring countries, (b) increase the flexibility of the storage system, (c) contribution to the sustainability and flexibility of the transmission system especially of high pressure pipelines, (d) reduction of dependency on Russian gas, and (e) support for Romania's gas export potential.					

Barriers Description **Barrier Type** - no negotiated tariffs - no daily/weekly balance reports - Under the current regulation the project could increase the storage tariffs at a level which make Regulatory the storage business less attractive in reality actual regulatory tariffs don't respond to the increasing demand of multiple types of tariffs and / or missing of price mobility and negotiation possibilities. Reduced market demand from the companies acting on the gas market due to a reduced price of import gas price. Market Due to the lack of market and the characteristics of the storage business financial institution are not interested to support such project. Financing Regulatory Low or zero-priced short-term capacity Regulatory Low rate of return **Financing** Amortization rates Lack of market maturity Market Market Lack of market support

СВСА					
Decision	No, we have not submitted an investment request yet, but we do plan to submit it				
Submissin Date					
Decision Date					
Website					
Countries Affected					
Countries Net Cost Bearer					
Additional Comments					

Financial Assistance				
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision			
Grants for studies	Yes			
Grants for studies amount	Mln EUR 1			
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	Yes, for studies and works			
Other Financial Assistance	No			
Comments				
General Comments	We have applied for CEF grant for studies but it was not approved,			

Project GO4LNG LNG terminal Gothenburg

LNG-N-32	Project	LNG Terminal	Non-FID
Update Date	30/05/2018		Advanced
Description	A small-scale LNG terminal, including connection to the transmission grid, placed in the Go bunkering and regasification.	thenburg harbour, with flexible se	end out by rail, truck,

PRJ Code - PRJ Name

Capacity Increments Variant For M	lodelling							
Point		Oper	ator		Year F	From Gas System	To Gas System	Capacity
Gothenburg LNG			egas AB		2020	LNG_Tk_SE	SE	26.0 GWh/d
Sponsors			General Information			NDP and	PCI Information	
Swodogas AB	100%	Promotor		Swodogas AB	Part of N	VIDD A	lo ((2) no NDP avis	ts in the country

Sponsors			General Information	NDP and PCI Information		
Swedegas AB	100%	Promoter	Swedegas AB	Part of NDP	No ((2) no NDP exists in the country)	
		Operator	Swedegas AB	NDP Number		
		Host Country	Sweden	NDP Release Date		
		Status	Planned	NDP Website		
		Website	<u>Project's URL</u>	Currently PCI	Yes (8.6)	
				Priority Corridor(s)	BEMIP	

Schedule	Start Date	End Date
Pre-Feasibility		01/2012
Feasibility	01/2012	06/2012
FEED	01/2017	01/2017
Permitting	10/2013	05/2014
Supply Contracts		12/2017
FID		12/2017
Construction	01/2018	10/2020
Commissioning	2020	2020

Lach	nical	Informat	ion (T NIC=1
I CCI I	mcai	mmuniat	ווטו	LINU

Send-out Storage Reloading Expected Increment Ship Size Commissioning Load Factor Project Phase Regasification Facility capacity capacity (m3 Comments Ability (bcm/y) (m3)Year (%)(mcm/d) LNG)

GO4LNG Gothenburg No

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The project is designed to cover several market segments with the main volume driver LNG send out to marine and industrial segments but also for injection to Swedegas' existing transmission grid. Facilitates supply to non grid customers, such as industry replacing oil and future Specific Criteria Fulfilled Comments bunkering of ships to comply with the coming SECA regulation. Connetion to the grid allows an second entry point to the Swedish

transmission grid increasing security of supply and competition. Connection also timproves functionality such as pressure holding, short term

storage etc.

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP Delayed

Delay Explanation Slower market development than expected.

Expected Gas Sourcing

LNG (?)

Benefits							
Main Driver	Market Demand						
Main Driver Explanation	The project is designed to cover several market segments with the main volume driver LNG send out to marine and industrial segments but also for injection to Swedegas' existing transmission grid.						
Benefit Description	Facilitates supply to non grid customers, such as industry replacing oil and future bunkering of ships to comply with the coming SECA regulation. Connection to the grid allows an second entry point to the Swedish transmission grid increasing security of supply and competition. Connection also timproves functionality such as pressure holding, short term storage etc.						

Market

Lack of market support

Barriers						
Barrier Type	Description					
Regulatory	Small scale LNG is an emerging market with no mature trade patterns which make it difficult to combine capacity holders in a cost-efficient way - given a low rate of return.					
Permit Granting	Permits obtained					
Regulatory	Low rate of return					

	CBCA	Financial Assistance			
Decision	Yes, we have submitted an investment request and have received a decision	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision		
Submissin Date		Grants for studies	No		
Decision Date	17/09/2015	Grants for studies amount			
Website		Grants for works	No		
Countries Affected		Grants for works amount			
Countries Net Cost Bearer		Intention to apply for CEF			
Additional Comments		Other Financial Assistance	No		
		Comments			
		General Comments			

CS Ajdovščina, 1st phase of upgrade

TRA-N-92	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Non-Advanced
Description	Adjustment to the operating parameters of the transmission system of the Italian TSO and i	ncreasing the transmission capac	city.
PRJ Code - PRJ Name			

Sponsors				General Information		NDP and PCI Information		
			Promoter	Plinovodi d.o.o.	Part of NDP	Yes (TYNDP for the period 2018-2027)		
Plinovodi		100%	Operator	Plinovodi d.o.o.	NDP Number	C1		
Paldiski LNG Term	ninal		Host Country	Slovenia	NDP Release Date	09/10/2017		
Balti Gaas LLC	7	100%	Status	Planned	NDP Website	NDP URL		
			Website	<u>Project's URL</u>	Currently PCI	No		
					Priority Corridor(s)			
Schedule	Start Date	End Date			Thir	d-Party Access Regime		
Pre-Feasibility					Considered TPA Regi	me Regulated		
Feasibility					Considered Tariff Reg	gime Regulated		

Schedule	Start Date	end Date	Third-Party Access R	egime
Pre-Feasibility			Considered TPA Regime	Regulated
Feasibility			Considered Tariff Regime	Regulated
FEED			Applied for Exemption	No
Permitting			Exemption Granted	No
Supply Contracts				
FID			Exemption in entry direction	0.00%
Construction			Exemption in exit direction	0.00%
Commissioning	2022	2022		

	Enabled Projects
Project Code	Project Name
TRA-N-108	M3 pipeline reconstruction from CS Ajdovščina to Šempeter/Gorizia

Pipelines and Compressor Stations				
Pipeline Section	Pipeline Comment	Diameter L (mm)	Length Compressor Power (km) (MW)	Comissioning Year
CS Ajdovščina, 1st phase of upgrade	Power up to 5 MW.		5	0
	Total		5	

Fulfilled Criteria

Specific Criteria Fulfilled

Benefit Description

Specific Criteria Fulfilled Comments

	Benefits
Main Driver	Market Demand
Main Driver Explanation	

Agreement Agreement between PMs of Estonia and Finland MoU between Estonia and Finland and LNG project promoters

Is Signed Agreement Signature Date Agreement Description

Yes 17/11/2014

Yes 28/02/2014

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance			
Applied for CEF	(3) No, we have not applied for CEF		
Grants for studies	No		
Grants for studies amount			
Grants for works	No		
Grants for works amount			
Intention to apply for CEF	No decision yet taken		
Other Financial Assistance	No		
Comments			
General Comments			

CS Kidričevo, 2nd phase of upgrade

TRA-N-94	Project	Pipeline including CS	Non-FID	
Update Date	30/03/2018		Advanced	
Description	Ipgrade of CS for higher operational pressure in the existing M1/1 and M2/1 pipelines, higher flow and bidirectional operation. The project aims to ssure additional necessary compressor power for the PCI 6.26 Cluster Croatia - Slovenia - Austria at Rogatec.			
PRJ Code - PRJ Name	-			

Sponsors			General Information NDP and PCI Information			and PCI Information
Plinovodi		100%	Promoter	Plinovodi d.o.o.	Part of NDP	Yes (TYNDP for the period 2018-2027)
//	16		Operator	Plinovodi d.o.o.	NDP Number	C5
			Host Country	Slovenia	NDP Release Date	09/10/2017
			Status	Planned	NDP Website	NDP URL
			Website	<u>Project's URL</u>	Currently PCI	Yes (6.26.1.2)
					Priority Corridor(s)	NSIE
Schedule	Start Date	End Date			Third-	-Party Access Regime
Pre-Feasibility					Considered TPA Regim	e Regulated
Feasibility					Considered Tariff Regir	me Regulated
FEED	07/2019	07/2021			Applied for Exemption	No
Permitting					Exemption Granted	No
Supply Contracts						
FID		07/2019			Exemption in entry dire	ection 0.00%
Construction	07/2021	12/2022			Exemption in exit direct	tion 0.00%
Commissioning	2022	2022				

	Enabled Projects
Project Code	Project Name
TRA-N-389	Upgrade of Murfeld/Ceršak interconnection (M1/3 Interconnection Ceršak)
TRA-N-390	Upgrade of Rogatec interconnection (M1A/1 Interconnection Rogatec)

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
CS Kidričevo, 2nd phase of upgrade	Up to three compressor units with total power of up to 30 MW.			30	0
	Total			30	

Fulfilled Criteria

Specific Criteria Fulfilled

Market Integration, Security of Supply

The project will contribute to the facilitation of market integration and provide infrastructure allowing the increase of security of supply for the Specific Criteria Fulfilled Comments region. Upgrade of CS for higher operational pressure in the existing M1/1 and M2/1 pipelines, higher flow and bidirectional operation. The project aims to assure additional necessary compressor power for the PCI 6.26 Cluster Croatia - Slovenia - Austria at Rogatec.

Expected Gas Sourcing

Norway, Russia, LNG (HR)

Benefits

Main Driver

Market Demand

Countries Net Cost Bearer **Additional Comments**

Main Driver Explanation Also essential contribution to Security of supply.

Benefit Description

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	

Financial	Assistance
Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	No
Comments	
General Comments	

M3 pipeline reconstruction from CS Ajdovščina to Šempeter/Gorizia

TRA-N-108		Project		Pipeline includin	a CS N	lon-FID
Update Date		30/03/2	0018	i ipenne merdani	_	-Advanced
Description Description	Interconnector with the It	alian TSO. Adjustment to operating pa		ission system of the Italian		-Advanced
	interconnector with the it	alian 130. Adjustillent to operating pa	arameters of the transm	ission system of the italian	130.	
PRJ Code - PRJ Name	-					
Capacity Increments Variant	t For Modelling					
Point		Operator		Year From Gas System	To Gas System	Capacity
Gorizia (IT) /Šempeter (SI)		Plinovodi d.o.o.		2022 IT	SI	36.6 GWh/d
Gorizia (11) / Sempeter (31)		Plinovodi d.o.o.		2022 SI	IT	39.2 GWh/d
Sponsors		General Inform	nation	NDP and	d PCI Information	
Plinovodi	100	% Promoter	Plinovodi d.o.o.	Part of NDP Ye	es (TYNDP for the pe	eriod 2018-2027)
		Operator	Plinovodi d.o.o.	NDP Number		C2
		Host Country	Slovenia	NDP Release Date		09/10/2017
		Status	Planned	NDP Website		NDP URL
		Website	Project's URL	Currently PCI		No
				Priority Corridor(s)		
Schedule Start	Date End Date			Third-Pa	rty Access Regime	
Pre-Feasibility				Considered TPA Regime		Regulated
Feasibility				Considered Tariff Regime		Regulated
FEED				Applied for Exemption		No
Permitting				Exemption Granted		No
Supply Contracts						
FID				Exemption in entry direction	on	0.00%
Construction				Exemption in exit direction	n	0.00%
Commissioning	2022 2022					

Enabled Projects

Project Code Project Name

TRA-N-92 CS Ajdovščina, 1st phase of upgrade

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
M3 pipeline reconstruction from CS Ajdovščina to Šempeter/Gorizia		500	12		0
	Total		12		

Fulfilled Criteria

Specific Criteria Fulfilled

Specific Criteria Fulfilled Comments

	Benefits
Main Driver	Others
Main Driver Explan	ation Adjustment of IP boundary conditions (pressure).
Benefit Description	

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or
	not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	

Financial Assistance					
Applied for CEF	(3) No, we have not applied for CEF				
Grants for studies	No				
Grants for studies amount					
Grants for works	No				
Grants for works amount					
Intention to apply for CEF	No decision yet taken				
Other Financial Assistance	No				
Comments					
General Comments					

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

TRA-N-389	Project Project	Pipeline including CS	Non-FID
Update Date	15/11/2018		Advanced
Description	Adjustment to operating parameters of the transmission system of the Austrian TSO, increasing the transmission capacity and enabling bidirectional operation. The project is a part of the PCI 6.26 Cluster Croatia - Slovenia - Austria at Rogatec.		
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Mo	odelling				
Point	Operator	Year	From Gas System	To Gas System	Capacity
Advertish (AT) (Covinty (C))	Plinovodi d.o.o.	2022	AT	SI	78.7 GWh/d
Murfeld (AT) / Ceršak (SI)	Plinovodi d.o.o.	2022	SI	AT	162.0 GWh/d

Sponsors		General Information NDP and PCI Information		
Plinovodi 100	% Promoter	Plinovodi d.o.o.	Part of NDP	Yes (TYNDP for the period 2018-2027)
	Operator	Plinovodi d.o.o.	NDP Number	C4
	Host Country	Slovenia	NDP Release Date	09/10/2017
	Status	Planned	NDP Website	NDP URL
	Website	<u>Project's URL</u>	Currently PCI	Yes (6.26.1.5)
			Priority Corridor(s)	NSIE

Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	07/2019	07/2021
Permitting		
Supply Contracts		
FID		07/2019
Construction	07/2021	12/2022
Commissioning	2022	2022

Current TYNDP : TYNDP 2018 FINAL - Annex A Page 618 of 641

Enabled Projects

Project Code Project Name

TRA-N-94 CS Kidričevo, 2nd phase of upgrade

TRA-N-390 Upgrade of Rogatec interconnection (M1A/1 Interconnection Rogatec)

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Upgrade of Murfeld/Ceršak interconnection	Pipeline length: 160m.	800	0		0
Total			0		

Fulfilled Criteria

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply

The Project enables incremental capacity at the IP Murfeld/Ceršak in both directions (from AT to SI and from SI to AT) and contributes to the Specific Criteria Fulfilled Comments common benefits of removing bottlenecks, improving N-1 for the Slovenian TSO, improving SoS for Austria, Slovenia and Croatia and will serve

as a base for future gas evacuation for Croatia through Slovenia to Austria.

Expected Gas Sourcing

Norway, Russia, LNG (HR)

Benefit Description

	Benefits		
Main Driver	Market Demand		
Main Driver Explanation Also essential contribution to Security of supply.			

СВСА		
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or	
	not	
Submissin Date		
Decision Date		
Website		
Countries Affected		
Countries Net Cost Bearer		
Additional Comments		

Financial Assistance				
Applied for CEF	(3) No, we have not applied for CEF			
Grants for studies	No			
Grants for studies amount				
Grants for works	No			
Grants for works amount				
Intention to apply for CEF	No decision yet taken			
Other Financial Assistance	No			
Comments				
General Comments				

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Underground Gas Storage Velke Kapusany

UGS-N-356	Project	Storage Facility	Non-FID
Update Date	28/03/2018		Advanced
Description	The Underground Gas Storage Velke Kapusany project aims to construct an underground close vicinity of Ukraine (1 km), Hungary (15 km) and Poland (70 km). The storage is Kapusany, and at the center of the soon-to-be NSI East Gas corridor. The projected working gas volume of the UGS Velke Kapusany is 340 mcm with inject serve a number of purposes, such as: - Providing security of supply to countries with insufficient storage capacities along the countries as well as providing domestic security of supply - Enhancing liquidity and facilitating gas trading at an emerging "gas hub" at the integration of the existing and future gas transmission infrastructure.	is located directly at the Ukraine-Slovaki tion and withdrawal rate set at 3.75 mcr ne north-south interconnector, mainly P ersection of the north-south and east-we	ia entry/exit point Velke m/d. This capacity will coland and the Balkan
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
UGS Velke Kapusany	NAFTA a.s.	2023	STcSK	SK	39.8 GWh/d
			Comment: exit	from UGS into TSO	
	NAFTA a.s.	2023	SK	STcSK	39.8 GWh/d
			Comment: entry from TSO into UGS		

Sponsors		(General Information		NDP and PCI Information		
NAFTA a.s.	100%	Promoter	NAFTA a.s. (joint stock company)		Yes (Ten-Year Network Development Plan of the transmission system of the		
		Operator	NAFTA a.s.	Part of NDP			
		Host Country	Slovakia	NDDN	company Eustream)		
		Status	Planned	NDP Number	chapter 3.3		
	W	Website	<u>Project's URL</u>	NDP Release Date	30/11/2017		
				NDP Website	<u>NDP URL</u>		
				Currently PCI	No		
				Priority Corridor(s)			
				Currently PCI			

Current	TYNDF) : TYN	IDP 2018	3 FINAL -	 Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		11/2017
Feasibility	04/2019	09/2019
FEED	02/2020	04/2021
Permitting	11/2017	04/2021
Supply Contracts		09/2020
FID		01/2020
Construction	06/2021	06/2023
Commissioning	2023	2023

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

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

	Fulfilled Criteria						
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability						
Specific Criteria Fulfilled Comments	Market integration will be enhanced by: -supporting the emerging "gas hub" at Velke Kapusany -enhancing active trading in the border area of four CEE countries and supported by PL-SK interconnector and Eastring -improving physical utilization of existing and new pipeline interconnections and enhancing the overall flexibility of the system -contributing to price convergence between the countries in CEE region (mainly SK, PL, HU) and the Balkans Making its storage capacity available to Poland via the future PL-SK Interconnector will improve the fulfillment of the N-1 rule for Poland. Other benefactors will be Ukraine and also countries along the southern part of the NSI East Gas corridor and Eastring, notably Bulgaria and Romania. UGS Velke Kapusany will be designed as hydrogen-ready for mixtures with up to 10% hydrogen content. UGS Velke Kapusany will become an important component ensuring higher supplier competition for Poland, Ukraine and secondarily also for Balkan countries.						

Expected Gas Sourcing

Caspian Region, Norway, Russia, LNG (PL)

D.	en		94"	
ы	-10	121		

Market Demand

Main Driver Explanation

Benefit Description

Main Driver

UGS Velke Kapusany aims at reinforcing the security of gas supplies in the CEE region and enhancing the market integration of EU member states, namely Poland, Slovakia, Hungary and Ukraine as well.

Enabling reverse gas flow to Ukraine led to a sharp increase in trading at Slovak virtual trading point and Ukraine scored a number of new gas suppliers from Western Europe. As the PL-SK interconnector is moving ahead, we can expect a similar scenario with Poland – another country that is relentlessly pursuing its goal of source diversification. Higher number of trading counterparties is, however, only possible when there is enough flexibility from storage and if the storage is close to the point of destination. With the NSI East Gas corridor and Eastring in the works, this can become a competition on a higher scale as natural gas from the North Sea, Caspian, Central Asia, Iran, the Middle East or LNG from multiple locations will have doors open to the region that had long suffered from isolation and market stagnation.

Barriers

not

Barrier Type

Description

Market

Lack of market maturity

Market

Lack of market support

	CDC/1
/e	have not submitted an investment request y
o k	have not vet decided whether we will suhmit

General Comments

Decision

No. w and we have not yet decided whether we will submit or

Submissin Date

Decision Date

Website

Countries Affected

Countries Net Cost Bearer

Additional Comments

Applied for CEF	(3) No, we have not applied for CEF
Grants for studies	No
Grants for studies amount	
Grants for works	No
Grants for works amount	
Intention to apply for CEF	Yes, for studies and works
Other Financial Assistance	No
Comments	

Financial Assistance

Trans-Caspian

TRA-N-339	Project	Pipeline including CS	Non-FID
Update Date	30/03/2018		Non-Advanced
Description	TCP will branch-off at a connection with the East-West pipeline or initially from a connection Turkmenistan. It will feed into Sangachal terminal and then SCP. Several economically justified possible. The first stage associated with one pipeline string is intended to transport 8-15 born of 2022), the capacity is intended to be increased to up to 30-32 bcm/y and feed both Turking towards Baumgarten) directions. We are currently evaluating an option of 2 phased develop Estimated costs for 2x32 in. pipelines + one compression station and terminal -€ 1.5 billion.	ed scenarios of TCP's step by step m/y towards Turkey (TANAP). For sh (TANAP) and cross-Black Sea (ment, each for 15 bcm/y, with tw	p expansion are r the second stage (end (via White Stream

PRJ Code - PRJ Name -

Capacity Increments Variant For Modelling						
Point	Operator	Year	From Gas System	To Gas System	Capacity	
	White Stream	2022	TM/SCP	RO	500.0 GWh/d	
Constanta (White Stream)	Comment: Second phase (2nd string) of TCP towards White Stream (N.B. Operator will be W- Stream Caspian pipeline Company Limited)					
	White Stream	2021	TM	TM/SCP	500.0 GWh/d	
South Caucasus Pipeline / White Stream	Comment: Fisrt phase of TC	P to SCP/TANAP/TAP,(I	,	W-Stream Caspian e Company Limitea		

Sponsors		General Information		NDP and PCI Information		
W-STREAM PIPELINE COMPANY LIMITED	90%	Promoter	W-Stream Caspian Pipeline	Part of NDP	No ((2) no NDP exists in the country)	
Georgian Oil and Gas Corporation (GOGC)	10%		Company Ltd	NDP Number		
deorgian on and das corporation (dode)	1070	Operator	W-Stream Caspian Pipeline	NDP Release Date		
			Company Ltd	NDP Website		
		Host Country	Turkmenistan	Currently PCI	Yes (7.1.1)	
		Status	Planned	,		
		Website	<u>Project's URL</u>	Priority Corridor(s)	SGC	

Current	TYNDF) : TYN	IDP 2018	3 FINAL -	 Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		01/2013
Feasibility	03/2018	02/2019
FEED	02/2019	11/2019
Permitting	06/2019	11/2019
Supply Contracts		11/2020
FID		12/2019
Construction	04/2020	09/2021
Commissioning	2021	2022

	3
Third-Party Access Regir	ne
Considered TPA Regime	Regulated
Considered Tariff Regime	Negotiated
Applied for Exemption	No
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Enabled Projects

Project Code Project Name TRA-N-53 White Stream

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
sub-sea (string 1)	175 MW total for two strings	812	300	175	0
sub-sea (string 2)	175 MW total for two strings	812	300	175	0
	Total		600	350	

Fulfilled Criteria

Specific Criteria Fulfilled

Competition, Market Integration, Security of Supply

30 bcma of Turkmen gas, supplied via two different routes to different areas in the EU with expected growing import needs will significantly contribute to the enhancement of the level of competition, positively affect prices, improve Security of Supply and stimulate Market integration. Turkmen gas is readily available through wells with established production, including wells in the shut-in condition and connected Specific Criteria Fulfilled Comments to the 30bcma throughput East-West pipeline with the Caspian shore. The overall transportation scheme is designed to maximize the use of pipelines already in operation or pipelines being constructed, therefore in combination with relatively low production costs, this ensures competitive prices of gas for shippers. The TCP 1st and 2nd string will contribute to removing bottlenecks for the countries which are – so far solely supplied with Russian gas, namely Bulgaria, Former Yugoslav Republic of Macedonia in case of natural gas supply interruptions.

Time Schedule

Grant Obtention Date

25/01/2018

Delay Since Last TYNDP

Delay Explanation

Expected Gas Sourcing

Caspian Region, Turkmenistan/Central Asia

	Benefits Programme Control of the Co
Main Driver	Market Demand
Main Driver Explanation	Gas from Turkmenistan can be the most competitively priced gas on the market in the European Union and the Energy Community. TCP could also further improve the economics of Azeri gas transportation via TANAP and enable the White Stream Pipeline, subsequently further increase market integration, competition and security of gas supply.
Benefit Description	TCP 1st and the 2nd string will indirectly and directly improve competition in the gas markets of the EU and the Energy Community, improve the security of gas supply and market integration in the EU as well as in the Energy Community.

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Barrier Type D

Description

Permit Granting

The project is at a too early stage at the moment regarding permit granting

	CBCA
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or not
Submissin Date	
Decision Date	
Website	
Countries Affected	
Countries Net Cost Bearer	
Additional Comments	TCP 1st and 2n string are not located in any of the EU-MS nor do they impact any of the EU-MS respectively Contracting Parties to the Energy Community directly.

	Financial Assistance
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Grants for studies	Yes
Grants for studies amount	Mln EUR 0
Grants for works	No
Grants for works amount	
Intention to apply for CEF	No decision yet taken
Other Financial Assistance	No
Comments	
General Comments	

TANAP - Trans Anatolian Natural Gas Pipeline Project

TRA-F-221	Project	Pipeline including CS	FID
Update Date	30/05/2018		Advanced
Description	TANAP intends for the transportation of the natural gas to be produced in Sha Europe. The TANAP (Trans-Anatolian Natural Gas Pipeline) Project will contribute Southern Gas Corridor. It constitutes a significant part of the gas supply value TAP (Trans Adriatic Pipeline) pipelines and provides a platform to foster gas to supplies from Azerbaijan's Shah Deniz gas field. The TANAP pipeline length within the borders of Turkey is about 1850 km on includes an outside pipe diameter of 56 and 48 inches, across land and two 30 Dardanelle crossing through the Sea of Marmara.	ute to the European gas supply security and diverse chain together with SCPX (South Caucasus Pipero gas competition in European gas market based the section up to Greece connection to TAP Pip	ersity by opening up the eline-Expansion) and d initially upon gas beline Project. TANAP
PRJ Code - PRJ Name	-		

Capacity Increments Variant For Modelling					
Point	Operator	Year	From Gas System	To Gas System	Capacity
Kipi (TR) / Kipi (TAP)	TANAP TSO	2019	TR/TNP	GR/TAP	318.0 GWh/d
T0.42.0	TANAP TSO	2018	AZ/SCP	TR/TNP	490.0 GWh/d
Türkgözü			Comment.	490.95257 Gwh/d	1

Sponsors		General Information		NDP and PCI Information		
"SOUTHERN GAS CORRIDOR" CLOSED JOINT STOCK COMPANY	58%	Promoter	SOCAR (The State Oil Company of the Azerbaijan Republic)	Part of NDP	No ((4) there is no obligation at national level for such a project to be part of the	
BORU HATLARI İLE PETROL TAŞIMA A.Ş. (BOTAS)	30%	Operator	TANAP TSO		NDP)	
	3070	Host Country	Turkey	NDP Number		
BP PIPELINES (TANAP) LIMITED	12%	Status	In Progress	NDP Release Date		
		Website	Project's URL	NDP Website		
				Currently PCI	Yes (7.1.1)	
				Priority Corridor(s)	SGC	

Current	TYNDP:	TYNDP	2018	FINAL -	Annex A
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Schedule	Start Date	End Date
Pre-Feasibility		08/2012
Feasibility	01/2013	03/2013
FEED	09/2012	05/2014
Permitting	04/2014	07/2014
Supply Contracts		06/2019
FID		12/2013
Construction	06/2014	06/2019
Commissioning	2018	2019

Third-Party Access Regime	
Considered TPA Regime	Negotiated
Considered Tariff Regime	Negotiated
Applied for Exemption	Not Relevant
Exemption Granted	Not Relevant
Exemption in entry direction	0.00%
Exemption in exit direction	0.00%

Pipelines and Compressor Stations					
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
Eskishehir (Turkey)-Greece Border		1,219	460	46	2019
Georgia/Turkey border- Eskishehir		1,442	1,347	46	2018
	Total		1,807	92	

	Fulfilled Criteria
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability
Specific Criteria Fulfilled Comments	TANAP brings new alternative supply of natural gas from new supllier. It plays crucial role in diversification and security of supply to the EU, fosters sustainability and competition.

	Time Schedule	
Grant Obtention Date	01/03/2016	
Delay Since Last TYNDP	No	
Delay Explanation	#Error	

Expected Gas Sourcing

Caspian Region

	Benefits	
Main Driver	Others	
Main Driver Explanation	Market demand Competition Access to new markets	
Benefit Description	Diversification of supply Diversification of routes Benefits sustainability Emission Red PCİ projects Significant cross-border effect Possibility of further expansion	duction Benefit infrastructure bottleneck Enabling other PCl and non-
	Barriers	
Barrier Type	Description	
Permit Granting	There is no permit granting barriers. All permits have been acquired.	
Others	Lack of support from Member States when applying for Support Letter for Grants. R Projects which bring gas volumes to EU markets.	Relevant Member States authorities should be more aware of the
Financing	Low oil prices in the world, which constitute the income of TANAP's major sharehold	der SGC, leads to difficulties on TANAP's financing
Financing	Availability of funds and associated conditions	
	Intergovernmental Agreements	
Agreement	Agreement Description	Is Signed Agreement Signature Da

Agreement	Agreement Description	Is Signed	Agreement Signature Date
Intergovernmental Agreement between Turkey and Azerbaijan	Intergovernmental Agreement (IGA) between the Government of the Republic of Turkey and the Government of the Republic of Azerbaijan Concerning the Trans Anatolian Natural Gas Pipeline System	Yes	26/06/2012

	CBCA		Financial Assistance
Decision	No, we have not submitted an investment request yet, and we do not plan to submit it	Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision
Submissin Date		Grants for studies	Yes
Decision Date		Grants for studies amount	Mln EUR 0
Website		Grants for works	No
Countries Affected		Grants for works amount	
Countries Net Cost Bearer		Intention to apply for CEF	Yes, for studies only
Additional Comments	Our Project does not have CDCA desicion by NRA or	Other Financial Assistance	No
Additional Comments	ACER	Comments	
		General Comments	

Islandmagee Gas Storage Facility

UGS-N-294	Project	Storage Facility	Non-FID
Update Date	29/03/2018		Advanced
Description	IMSL plans to create seven caverns, capable of storing up to a total of 500 million cubic mability to meet the increasing peak gas demand, whilst also providing a greater degree of	3	

PRJ Code - PRJ Name

Capacity Increments Variant For Modelling							
Point	Operator	Year	From Gas System	To Gas System	Capacity		
	Islandmagee Storage Ltd	2022	UKn	STcUK	132.0 GWh/d		
	Comment: The project is a gas storage facility. Due to this the facility can provide a peak						
Islandmagee	incremet as stated. The facility is planned to inject at 12mcm a day and withdraw at 22mcm a						
	tay so the increment could be as low as 0 per day or peak at the stated 132. This will depend on						
	local demand and it has been difficult to state an increment for this other than the peak.						

Sponsors		General Information	NDP and PCI Information			
Islandmagee Storage Limted	100%	Promoter	Islandmagee Storage Limited	Part of NDP	Yes (Northern Ireland Gas Capacity	
		Operator	Islandmagee Storage Ltd	Tare of INDI	Statement)	
		Host Country	United Kingdom	NDP Number	n.a.	
		Status	Planned	NDP Release Date		
		Website	Project's URL	NDP Website	NDP URL	
				Currently PCI	Yes (5.1.3)	
				Priority Corridor(s)	NSIW	

Current TYNDP: TYNDP 2018 FINAL - Annex A	A
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Schedule	Start Date	End Date
Pre-Feasibility		
Feasibility		
FEED	01/2018	12/2018
Permitting		
Supply Contracts		06/2019
FID		05/2019
Construction	09/2019	05/2022
Commissioning	2022	2022

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	0.00%
Exemption in exit direction	0.00%
	Considered TPA Regime Considered Tariff Regime Applied for Exemption Exemption Granted Exemption in entry direction

			Technical Information	n (UGS)					
Storage Facility	Storage Facility Type	Multiple-cycle Facility	Project Phase	Working Volume (mcm)	Withdrawal Capacity (mcm/d)	Injection Capacity (mcm/d)	Load Factor (%)	Comments	Commisioning Year
Islandmagee Storage Facility	Salt Cavern	Yes	Project Construction	420	22.0	12.0	20	The project is currently at the FEED stage so the technical information is likley to change as this process materialises.	2019

- 100	 Crite	
	/ rito	

Specific Criteria Fulfilled Competition, Market Integration, Security of Supply, Sustainability

The Islandmagee facility will enhance physical and price security of supply for the Northern Ireland, Republic of Ireland and Great Britain gas Specific Criteria Fulfilled Comments markets. It will also enable a number of renewabnle energy projects to become more viable because the gas facility can be used to support rapid injection of gas during periods of peak volatility and also during periods of low renewable generation.

Time Schedule

Grant Obtention Date 17/06/2016

Delay Since Last TYNDP approx 3 years

Delay Explanation The project has been rescheduled due to the availability of finance and the difficult trading conditions within the UK gas market.

Expected Gas Sourcing

The project will source its gas from the main UK network supply

	Benefits
Main Driver	Others
Main Driver Explanation	Thge main project drivers are the security of gas supply for the Island of Ireland and the ability to enable better stability of price for the gas consumers. At present the Irish have a sinbgle connector at Moffat that provides gas and any disruption to this would have major implications. With this facility the Island some resilience to such a situation.
Benefit Description	The facility will remove the bottleneck between Northern Ireland (NI) and Republic of Ireland (ROI) markets caused by pressure differentials between the two networks, by enabling the pressures within NI to be sufficient to enable export of gas from NI to ROI. The project will end energy isolation due to greater connectivity with ROI and Great Britain (GB) markets. NI is currently fully import dependent. The facility will permit exports to be delivered from NI, enhancing free flow of gas to meet localised demand. An alternative source of gas supply to the island of Ireland. The facility will enhance physical and price security of supply for the N.Ireland, ROI and GB markets. The project will provide support to renewable electricity generation in both ROI and NI by increasing the availability of flexible gas supplies to support gas generating plant which will be increasingly required to operate in conjunction with intermittent wind generation.
	Barriers
Barrier Type	Description
Political	The UK government does not place enough importance on the availability of gas storage and as such the economic conditions for such a facility are difficult to manage.
Market	The Islandmagee gas storage facility requires competitive gas storage transmission tariffs in order to compete against GB storage facilities.
Regulatory	Low or zero-priced short-term capacity
Regulatory	Low rate of return
Financing	Availability of funds and associated conditions
Market	Lack of market support

СВСА						
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or					
	not					
Submissin Date						
Decision Date						
Website						
Countries Affected						
Countries Net Cost Bearer						
Additional Comments						

Financial Assistance						
Applied for CEF	(1) Yes, we have applied for CEF and we have received a decision					
Grants for studies	Yes					
Grants for studies amount	Mln EUR 4					
Grants for works	No					
Grants for works amount						
Intention to apply for CEF						
Other Financial Assistance	No					
Comments						
General Comments						

Physical reverse flow from NI to GB and IE via SNIP pipeline

TRA-N-27	Project	Pipeline including CS	Non-FID
Update Date	30/05/2018		Non-Advanced
	Installation of hi-drectional compression on Scotland to Northern Ireland nineline (SNIP)	ninework modifications at 2 AGI's	to allow hidirectional

Description

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

PRJ Code - PRJ Name

Capacity Increment	ts Variant For Mo	delling							
Point	A. J.			Operator		Year	From Gas System	To Gas System	Capacity
Twynholm Premier Transmission Ltd			ansmission Ltd	2021	UKn	Y-UKm	131.0 GWh/d		
Sponsors			(General Information		NDP and	d PCI Information		
Premier Transmissi	on Ltd	1	100%	Promoter Operator	Premier Transmission Limited Premier Transmission Ltd	Part	of NDP	Yes (Northern Irelar	nd Gas Capacity Statement)
				Host Country	United Kingdom	, NDP	Number		n.a.
				Status	Planned	d NDP	Release Date		26/10/2017
				Website	<u>Project's URI</u>	NDP	Website		NDP URL
					-	Curre	ently PCI		Yes (5.1.2)
						Prior	ity Corridor(s)		NSIW
Schedule	Start Date	End Date					Third-Par	ty Access Regime	
Pre-Feasibility		10/2018				Cons	idered TPA Regime		Regulated
Feasibility	10/2018	10/2018				Cons	idered Tariff Regime		Regulated
FEED	01/2019	01/2019				Appli	ed for Exemption		Not Relevant
Permitting	10/2018	09/2019				Exem	ption Granted		Not Relevant
Supply Contracts		01/2019							
FID		12/2019				Exem	ption in entry direction	on	0.00%
Construction	01/2021	09/2021				Exem	ption in exit direction		0.00%
Commissioning	2021	2021							

Pipelines and Compressor Station	ns				
Pipeline Section	Pipeline Comment	Diameter (mm)	Length (km)	Compressor Power (MW)	Comissioning Year
SNIP-Scotland to Northern Ireland		600		10	0
	Total			10	
	Fulfilled Criteria				
Specific Criteria Fulfilled	Competition, Market Integration, Security of Supply, Sustainability				

Specific Criteria Fulfilled Comments

This project will open up the GB-NI-Republic of Ireland corridor, and the Republic of Ireland-NI-GB corridor, both currently unavailable. All three markets would have the ability for physical bi-directional links for the first time. The project would allow future gas finds in Northern Ireland to be accessed by GB and RoI. The project will allow GB and RoI to access flexible gas storage planned for Northern Ireland — which is essential for Northern Ireland gas storage to be feasible.

Time Schedule

Grant Obtention Date

Delay Since Last TYNDP Approx 2 years

Delay Explanation

This project is linked to the Islandmagee gas storage project and has been subsequently delayed, in line with the gas storage project being

delayed – caused by the absence of competitive transmission tariffs for gas storage.

Benefits				
Main Driver	Market Demand			
Main Driver Explanation Required by Islandmagee Gas Storage Project				
Benefit Description	This project will open up the GB-NI-Republic of Ireland corridor, and the Republic of Ireland-NI-GB corridor, both currently unavailable. All three markets would have the ability for physical bi-directional links for the first time. The project will allow future gas finds in Northern Ireland to be accessed by GB and Rol. The project will allow GB and Rol to access flexible gas storage planned for Northern Ireland – which is essential for Northern Ireland gas storage to be feasible. The planned upgrade will allow security of supply benefits due to the ability to use the planned gas storage facility. It will also provide back-up support for renewable generation.			

CBCA			
Decision	No, we have not submitted an investment request yet, and we have not yet decided whether we will submit or		
	not		
Submissin Date			
Decision Date			
Website			
Countries Affected			
Countries Net Cost Bearer			
Additional Comments			

Financial Assistance			
Applied for CEF	(3) No, we have not applied for CEF		
Grants for studies	No		
Grants for studies amount			
Grants for works	No		
Grants for works amount			
Intention to apply for CEF			
Other Financial Assistance	No		
Comments			
General Comments			