ENTSOG Publication:

[001]- Comments on the Project in the context of the current publication. :

General Information:

[002]- Is the project an enabler for groups? : No

[003]- Project(System) Code: 444

[004]- ENTSOG Project Code: TRA-F-444

[005]- Was the project item part of the last TYNDP? : Yes

[006]- Project Name: Example Transmission Project (Interconnection)

[007]- Infrastructure Type : TRA

[008]- Is the project a virtual submission of more projects : No

[009]- Project Description: New bidirectional offshore pipeline & Gedser-Rostock, DN700, 80 bar of 80 km, plus 120 km onshore pipeline in DK & Gedser-Roskilde pipeline, DN 700, 70 bar including metering and compressor station at the end of the pipeline with a daily nominal capacity of 7.2 mcm/day. The power of the compressor station is about 10 MW.

[010]- Project Host Country: Denmark

[011]- Project Status : In Progress

[013]- Promoter Legal Personality: Promoter Company Name

[014]- Project Promoter Type. : TSO

[016]- Which Company will be the commercial operator once your project is completed. : DESFA S.A.

[017]- Will there be any other commercial operator(s) once your project is completed? If yes, please mention it/them. : no

[018]- Has your project taken the FID? : Yes

[019]- Indicate the date when your FID was taken: 26/06/2019

[020]- Is your project only a Capacity Modification, which does not require actual investment or construction works? : No

[021]- Estimated CAPEX (in million €): 200

[022]- Are these CAPEX costs considered confidential? : No

[024]- Amount of already incurred CAPEX (in million EUR] at the time of project submission: 100

[026]- Amount of contracted but not yet incurred CAPEX (in million EUR] : 20

[028]- CAPEX Range (in %): 3

[029]- Estimated OPEX (in million € per year): 5

[030]- Are these OPEX costs considered confidential? : No

[032]- OPEX Range (in %): 5

[033]- Name of your representative in charge of the Project submission : George Test

 $\hbox{[034]- E-mail address of your representative in charge of the Project submission:}\\$

george.test@test.com

[035]- Phone number of your representative in charge of the Project submission: 123456789

[036]- Project Website:

[037]- General Remarks:

Administrative Criteria:

[038]- Please select the category of the project promoter you are: A.1 Company which is a Member, Observer or Associated Partner of ENTSOG or an entity being a partner of the company in the same project4 or having a shareholding relation with this company5.

[042]- Company Existance (Pass-Fail Criteria): Yes

[043]- Company Financial Strength (Pass-Fail Criteria): Yes

[044]- Company Technical Expertise (Pass-Fail Criteria): Yes

[045]- Please indicate if your project has completed the (Pre-) Feasiblity study: Yes

[046]- Please select one of the following options:

- PCI
- FID
- National plan

[047]- Please provide any additional comments :

Inclusion in NDP:

[054]- Is your project part of a National Development Plan (NDP)?: Yes

[055]- Please indicate the name of the NDP in which your project is included: National TEN-YEAR Transmission System Development Plan 2018-2027 Country A

[056]- Please indicate the unique identification number of your project in the NDP: N/A

[057]- Project NDP Website : http://www.testtestst.com

[059]- NDP Release date: 01/05/2018

Enabler/Enhancer Projects:

[061]- Is this project an internal enabler? : No

[065]- Is this project an enhancer?: No

<u>Project Shareholders:</u>

[069]- Project Section	[070]- Shareholder Name	[071]- Shareholder Share

Country A Section	Promoter Company Name	100
-------------------	-----------------------	-----

Technical Information:

[072]- Indicate if your project is part of: None of above

[074]- Is this a multi-phase project? : No

[075]- Please specify if your project is suited to transport increasing percentages of hydrogen (possibly up to 100 %): Yes

[077]- Please specify if your project contributes to coal to gas switch: No

Type Specific Information - Pipeline :

[079]- Name of the section/phase	of the	Diameter	[082]- Additional Compressor Power (in MW)	[083]- Part of Variant	[084]- Comments	Comiccionina	[086]- Modelling Commissioning Year
Complete	200	700	10	Test 1		2022	2022

[131]- Please indicate the expected load factor of your project (when completed) on yearly basis : 50

[132]- Please indicate the expected load factor of your project (when completed) under peak situation : 95

[133]- Is the proposed project the result of the demand assessment in the context of the Incremental Capacity Process? : No

Project of Common Interest(PCI) Label:

[136]- Is your project in the current legal PCI list? : Yes

[137]- PCI Name:

[138]- Do you intend to apply for PCI label in the next PCI round? : Yes

[147]- Was your project part of any other PCI Lists? If yes, please select the latest PCI list the project was part of: PCI List 2017

[148]- Which criteria are fulfilled by your project?:

- Involves at least two Member States by directly crossing the border of two or more Member States

[150]- Please justify your answer. : Interconnection between two MS Countries.

[152]- Which specific criteria are fulfilled by your project?:

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

[154]- Please justify your answer. : Market integration: - Connection of the gas markets in the region Competition: - Reduction of price differences between the East Baltic region and North-West

[155]- Is the project also part of the latest Energy Community PECI or PMI list? : Yes

Variant for Modelling:

[156]- Variant Name	[157]- Variant Description	[158]- Considered for Modelling	
Test 1	Description Default	Yes	•

<u>Increments in Entry/Exit Capacity (If you do not complete this section, your project cannot be</u> modelled):

_:

[159]- Transportable/storable gas	[160]- Share of selected gas/ total capacity [%]

Natural gas: 100

Hydrogen:

Synthetic methane:

Biomethane:

[161]- Operator	[162]- Point	[163]- Flow Direction	[164]- Status	[165]- Variant	[166]- Commissioning Year	[167]- Modelling Commissioning Year	[168]- Increment (GWh/d)	[169]- Peak Increment (GWh/d)	[170] Comr
Trans-Adriatic Pipeline AG	Komotini - TAP / IGB	entry	Planned	Test 1	2022	2022	70	90	
Trans-Adriatic Pipeline AG	Komotini - TAP / IGB	exit	Planned	Test 1	2022	2022	80	90	

Cross Border Cost Allocation and Financial Assistance:

[171]- Does your project have a CBCA decision by NRAs or ACER? Select one or more:

- Yes, we have submitted an investment request and have received a decision

[172]- {if option 1, 2 or 3} When the investment request was submitted/or you plan to submit it? : 17/06/2018

[173]- If option 1), when was the decision taken?: 10/04/2019

[174]- If option 1), please provide CBCA Decision Website:

http://https://Acer.europe.eu/official documents

[175]- If option 1), please list the countries identified from the CBCA decision as net benefiting countries :

- Cyprus
- Greece

[176]- If option 1), please list the countries identified from the CBCA decision as net cost bearers:

- [177]- Please provide any additional comments:
- [178]- Have you already applied for financial support from the Connecting Europe Facility (CEF):
- (1) Yes, we have applied for CEF and we have received a decision
- [179]- [If options 1) or 2) in above box list] Did your project request EU financial assistance in the form of grants for studies? : No
- [180]- Did you receive any grants for studies following your request? : Not applicable
- [181]- If yes, please indicate the amount [mil EUR]:
- [182]- If options 1) or 2) Did your project request EU financial assistance in the form of grants for works? : Yes
- [183]- Did you receive any grants for works following your request? : Yes
- [184]- If yes, please indicate the amount [mil EUR]: 2
- [185]- If option 3), Do you intend to apply for financial support from the Connecting Europe Facility? :
- No, we do not plan to apply
- [186]- Have you received any financial support from funding programmes other than CEF at European, regional or national level? : No
- [187]- Please Provide details:
- [188]- Do you plan to apply for any other type of financial assistance?: No
- [190]- Please Provide any further relevant details:

Project Schedule:

- [192]- Pre-Feasibility Start date: 12/09/2017
- [192]- Pre-Feasibility End date: 14/11/2017
- [193]- Feasibility Start date: 01/12/2017
- [193]- Feasibility End date: 30/05/2018
- [194]- FEED : No FEED
- [195]- Permitting Phase Start date: 01/08/2018
- [195]- Permitting Phase End date: 28/02/2019
- [196]- Supply Contracts End date: 31/12/2019
- [198]- Construction Start date: 19/01/2021
- [198]- Construction End date: 15/03/2022
- [199]- Project Advancement : In Progress
- [200]- Comments about Project Advancement :

- [202]- Date of grant obtention for studies/for works:
- [203]- Comments about the schedule, including Realisation Conditions:
- [204]- Compared to previous TYNDP indicate if your project is: On time
- [205]- Delay Explanation: :

Project Expected Impact:

[206]- Main Project Driver(s):

- Market Demand
- [209]- Comments on the Main Project Driver: Industry in the area has a high energy demand.
- [210]- In line with the definition of Gasification provided in the Handbook, does your project contribute to the gasification of a country or the gasification of a specific area not reached yet by gas?: No
- **[212]- Please provide your project expected benefits**: The project is mainly driven by market demand but it will also lead to more competition.
- [213]- Impacted countries and relevant information. : Denmark and Germany
- [214]- Please indicate the number of new jobs created associated to the project, the impacted countries and provide relevant information: 10 jobs will be created in the maintenance area.
- [215]- Please describe and quantify any possible positive impact of the project on climate change : N/A
- [216]- Please describe and quantify any possible negative impact of the project on climate change : No negative impact investigated
- [222]- Does your Project include new digital solutions? : No
- [224]- Does your project enable the integration with the electricity, heating, water or telecommunication network? : No
- [229]- Does your project contribute to any of the following specific criteria?:
- market functioning and customer services

[231]- Gas Sourcing:

Algeria: No

Caspia/Azerbaijan: No

Libya : No

Norway: Yes

Russia: Yes

Israel: No

Turkey: No

LNG: No
LNG Country :
- World
:
Electrolysis : No

 $\textbf{SMR}: \mathsf{No}$

Pyrolysis: No

Biogas: No

Others:

[232]- Please provide the background for the gas sources the project will be supplied with. : Through interconnection between DK-DE DK will have access to the existing gas sources (Russia, Norway) to a higher extent.

[233]- Measures / Actions to reduce methane emissions :

- [234]- Does the design and construction of the project minimize the number of connections and components that commonly leak? : Yes
- [235]- Does the design and construction include measures for recapture/reuse of gas when possible (compressors, analysis equipment...)? : Yes
- [236]- Does the design and construction avoid or minimize the installation of vents (TRA and UGS only)? : Yes
- [237]- Comment.: The design and construction considers the use of electric/mechanical and compressed air equipment. The use of equipment powered by natural gas is minimized.
- [238]- Does the design and construction prioritize the use of electric, mechanical and compressed air equipment (pneumatic controllers, compressor starters)? : Yes
- [239]- In case that devices powered by natural gas are the best option, will lower emissions devices be used (instead of highbleed controllers)? : Yes
- [240]- Comment. :
- [241]- Does the design and construction foresee to install dry disconnect couplings in the LNG truck loading facilities (LNG only)? : Not applicable
- [242]- Does the design and construction consider to implement BOG recovery units to recover, compress and send the BOG to the recondenser to be converted to LNG (LNG only)? : Not applicable
- [243]- Is it planned to install automated air/fuel ratio controls?: No
- [244]- Please provide an estimation of the expected methane emissions [in kg CH4/y] once the facility has been commissioned and describe how these emissions were calculated. If not applicable, please justify. : Average yearly emission based on Marcogaz): Compressor Station = 1x

131.400 kg/yr Pipeline = 200*25=5.000 kg/yr Metering and pressure regulating station =1*16.000kg/yr In total = 152.400 kg/yr

[245]- Are periodic leak detection and repair (LDAR) programs for fugitive emissions planned during the start-up phase? : Under consideration

[247]- Are steps planned to reduce venting from routine maintenance repairs when pipelines and or large vessels need to be depressurized during operation? : Under consideration

[248]- Does the operator plan to minimize the volume that has to be depressurized during venting? : Yes

[249]- Does the operator plan to use pumpdowns for depressurizing pipelines and large vessels during maintenance? : Yes

[250]- Does the operator plan the usage of hot-taps to make connections to pipelines? : Yes

[251]- Is it planned to use portable compressors to avoid vents during start-up and operation? : Under consideration

[252]- In case that venting can not be avoided will vented gases flared? : Yes

[253]- Will LNG truck loading nitro injection or dry coupling used to avoid venting (LNG only)? : Not Applicable

[254]- Are LNG terminals BOG compressors used under normal operation conditions(LNG only)? :

[255]- Does the operator aspires increasing the combustion efficiency of natural-gas powered engines? : Not Applicable

[256]- Does the operator aspire to minimize number of start-ups (engines, turbines and fired heaters)? : Not Applicable

[257]- It is mandatory to keep an accurate inventory of flaring activities during start-up and operation (UGS, LNG only)? : Yes

[258]- Please list technical evidence to support the implementation of the selected mitigation measures (during engineering design, construction and start-up stages of the project)..:

[259]- Additional Mitigation measures (not included above):. :

[260]- Did Promoter(s) join/intend to join the OGMP 2.0 Reporting Framework? : Yes

[261]- if intended in the near future please give an approx. Date/Year . :

Intergovernmental Agreement:

[270]- Agreement Name	[271]- Signed	[272]- Date	[273]- Description	[274]- Other comments

Barriers in Implementation:

[275]- Regulatory Framework:

[277]- Permit granting: Permitting process took very long time and almost lead to an delay for the timely implementation of the project.

[278]- Financing:

[280]- Political :
[281]- Market :
[282]- Project acceptability by the local community. :
[283]- Technical/Technological. :
[285]- Value chain :
[286]- Other Barriers, please explain :
[287]- Which incentives would support your project implementation :
[288]- Have you received additional regulatory incentives for your project :

Please upload a map of your project :