Before going through the content of each specific Project Fiche, please read the introduction document.

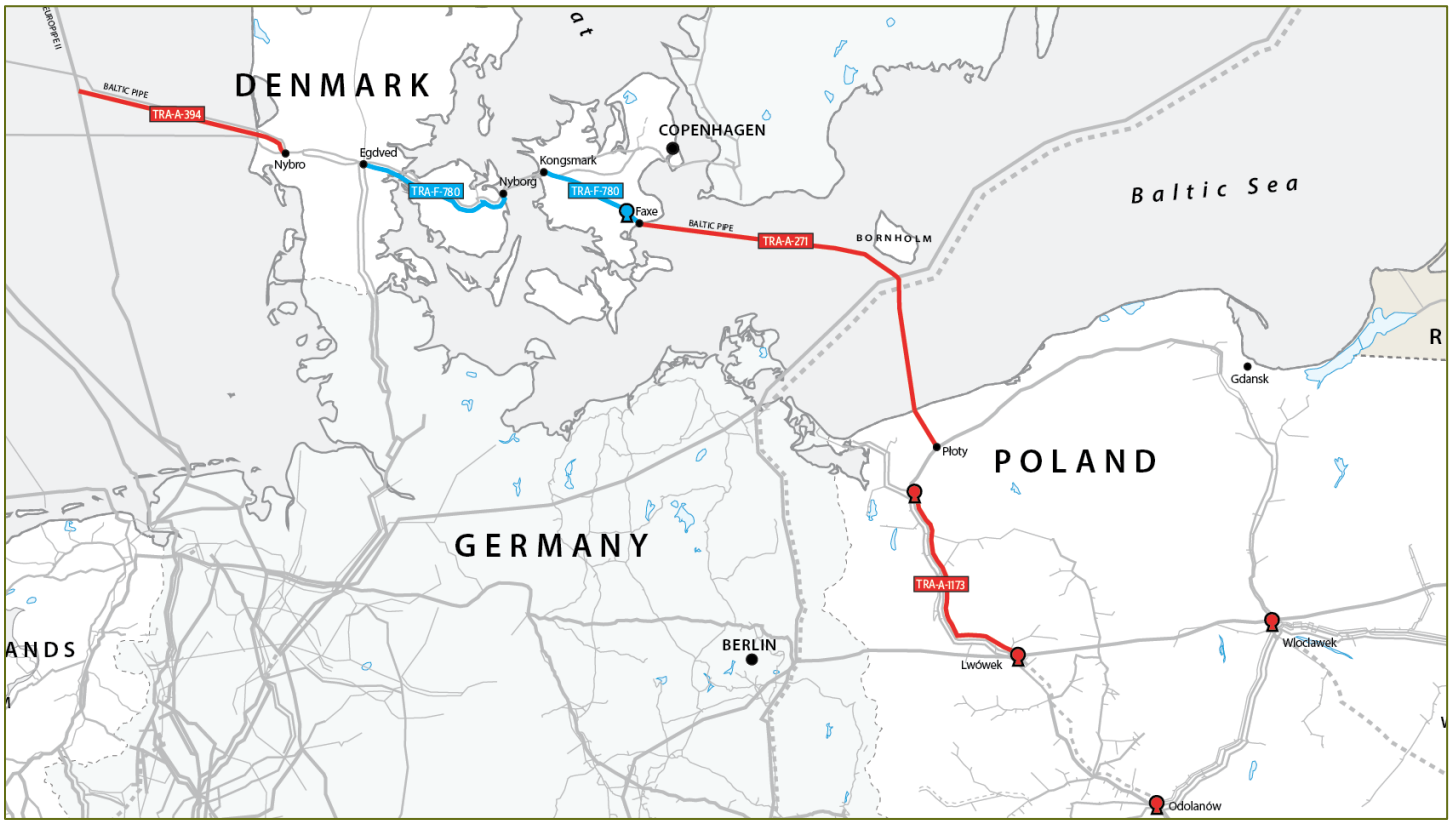
Project Group BEMIP_04 - Baltic pipe project

Reasons for grouping [ENTSOG]

The project group aims at connecting the gas transmission system of Poland, Denmark, and the upstream system in the North Sea with a view of transporting Norwegian gas to the countries in the Baltic Sea region and Central-Eastern Europe. The group includes the two sides of the investment (in Denmark TRA-F-780 and in Poland TRA-A-271 and TRA-A-1173), as well as the enabler project TRA-A-394.

Objective of the project(s) in the group [Promoter]

The project group aim at connecting the transmission systems in PL, DK and the upstream system in the North Sea with a view of transporting Norwegian gas to the countries in the Baltic Sea region and Central-Eastern Europe. The project will also bring the opportunity for DK and SE to diversify their supply potential (LNG deliveries from the terminal in Świnoujście).



Projects constituting the group

TYNDP Project Code	Project Name	Promoter	Hosting Country	Project Status	4th PCI List Code	First Comm Year	Last Comm. Year	Compared to TYNP 2018
TRA-A-1173	Poland - Denmark interconnection (Baltic Pipe) - onshore section in Poland	GAZ-SYSTEM	PL	Advanced	8.3.2	2022	2022	-
TRA-A-0271	Poland - Denmark interconnection (Baltic Pipe) - offshore section	GAZ-SYSTEM	PL	Advanced	8.3.2	2022	2022	On time
TRA-A-0394	Norwegian tie-in to Danish upstream system	Energinet.dk	DK	Advanced	-	2022	2022	On time
TRA-A-0780	Baltic Pipe project – onshore section in Denmark	Energinet.dk	DK	Advanced	8.3.1	2022	2022	On time

Technical Information

TYNDP Project Code	Diameter [mm]	Length [km]	Compressor Power [MW]
TRA-A-0271	900	280	-
TRA-A-0271	1000	40	-
TRA-A-0394	800	105	-
TRA-A-0780	1000	210	36
TRA-A-1173	1000	191	-
TRA-A-1173	-	-	41

Capacity Increment

The capacity increment values for each project are provided at all related Interconnection points (IP), both for “exit” and “entry” directions, being indicated the operator of the IP as well as the associated commissioning years of the capacity increments.

This information is presented in the table below and should be read per each line as follows: a certain project, TRA-N-123, can bring at a specific “Point Name” operated by “Operator X” an “exit” capacity increment “From System Y” “To System Z” which has associated an “Increment Commissioning Year”. Equally, for the same “Point Name” and operated by the same “Operator X”, an “entry” (reverse) capacity increment can be available to system “Y” from system “Z” which at its turn has associated an “Increment Commissioning Year”.

TYNDP Project Code	Point Name	Operator	From System	Exit Capacity [GWh/d]	Increment Comm. Year	To System	Entry Capacity [GWh/d]	Increment Comm. Year
TRA-A-1173	Aggregated Distribution (PL)	GAZ-SYSTEM S.A.	Distribution Poland (VTP - GAZ-SYSTEM)	-	-	Transmission Poland (VTP - GAZ-SYSTEM)	0	2022
TRA-A-271	Interconnector PL-DK	GAZ-SYSTEM S.A.	Transmission Poland (VTP - GAZ-SYSTEM)	91.1	2022	Transmission Denmark	306.8	2022
TRA-A-394	Europipe (NO) / Baltic Pipe (DK)	Energinet	Transmission Norway	-	-	NP Send-out Denmark (Offshore)	306.8	2022
TRA-A-394	Nybro	Energinet	NP Send-out Denmark (Offshore)	-	-	Transmission Denmark	306.8	2022
TRA-A-780	Interconnector PL-DK	Energinet	Transmission Denmark	306.8	2022	Transmission Poland (VTP - GAZ-SYSTEM)	91.1	2022

B. Project Cost Information

During the TYNDP 2020 Project Data Collection, promoters were asked to indicate whether their costs were confidential or not. The following tables display the costs provided by the promoters (as of June 2019, end of TYNDP 2020 project collection). The amounts provided can differ from the figures used by the project promoters in other contexts, where costs can be updated and/or evaluated using different methodologies or assumptions. For the purposes of this project fiche, in case promoters identified their costs as confidential, alternative costs have been provided by the promoter. The alternative costs are identified with "*".

	TRA-A-1173	TRA-A-271	TRA-A-394	TRA-A-780	Total Cost
CAPEX [min, EUR]	340*	620*	290	629	**1879**
OPEX [min, EUR/y]	8*	22*	5.96	22.9	**58.86**
Range CAPEX (%)	15	15	0	0	-
Range OPEX (%)	0	0	0	0	-

Description of costs and range [Promoter]

The costs are based on already agreed vendor agreements and remaining estimate at this project phase.

C. Project Benefits

C.1 Summary of project benefits

This section provides a summarised analysis by ENTSOG of the main benefits stemming from the realisation of the overall group and according to the guidelines included in the ENTSOG 2nd CBA Methodology. More details on the indicators are available in sections D and E.

National Trends

Benefits explained (but Sustainability) [ENTSOG]

> **Security of Supply:**

In the existing infrastructure level, the project group **fully mitigates the risk of demand curtailment** in Poland in 2040 under peak and 2-week dunkelflaute climatic stress cases, furthermore, it provides additional remaining flexibility to the Polish gas system when facing all climatic stress conditions from 2025. Additionally, the project group also **increases remaining flexibility** during peak day climatic stress case up to 100% level in Denmark.
Regarding the supply import routes disruptions, in case of Ukraine and Belarus disruptions the project group reduces significantly risk of demand curtailment in Poland thanks to a better access to Norwegian gas supplies, more specifically:

In case of **Ukrainian disruption**, in the existing infrastructure level, the project group **fully mitigates the risk of demand curtailment** in 2040 under 2-week and 2-week dunkelflaute climatic stress conditions in Poland and significantly **reduces this same risk** under peak-day climatic stress case. This situation improves in the low infrastructure level, with higher interconnection and entry capacities in Poland that allow the project group to **fully mitigate the risk of demand curtailment** under peak day climatic stress case also in 2040.

In case of **Belarus disruption**, **project group fully mitigates the risk of demand curtailment** for all climatic stress conditions (peak, 2-week, 2-week DF) in Poland in 2025 and 2030. However, in 2040, project group **fully mitigates the risk of demand curtailment** in Poland only under 2-week climatic stress case, and **reduces the risk of demand curtailment** under 2-week dunkelflaute and peak day climatic stress conditions, due to the increase of gas demand in Poland. This situation further improves in the low infrastructure level, where risk of disruption under peak and 2-week dunkelflatute in 2040 in Poland is totally mitigated together with FID projects.

For **Single Largest Infrastructure Disruption in Poland** (SLID-PL indicator) with the project group the largest infrastructure will change to the new interconnection with Denmark (instead of Belarus import route). In case of disruption, Poland could also flow gas using the Belarus transit route and **fully mitigates the risk of demand curtailment** in Poland in 2025 and 2030, whereas **significantly reduces this risk** in 2040 in the existing infrastructure level. Additionally, in the low infrastructure level, together with FID projects, the project group fully mitigates the risk of demand curtailment in Poland also in 2040.

> **Competition:**

Improving the interconnection of the gas transmission systems in Poland, Denmark with the upstream system in the North Sea with allowing transport of Norwegian gas and also LNG to the countries in the Baltic Sea region and Central-Eastern Europe, the group realisation also allows to significantly **reduce the dependence from Russian gas** in Sweden, Denmark and Poland, and to a lower extent to other neighbouring countries in North-West Europe. Additionally, this project group **allows more access to** Norwegian Supply Source, however both countries (Poland and Denmark) were already benefiting from access to Norwegian gas source with the existing infrastructure. Moreover, by increasing interconnection capacity between Poland and Denmark the projects group **improves the access to LNG** from Poland in Denmark and Sweden in 2040 in the existing infrastructure level.
Further reducing the LICD indicator value, the projects group **contributes to the diversification of entry points** in Denmark, Sweden and Poland.

> **Market integration:**

The project group brings benefits to Poland and more globally to Northern Eastern (Baltics) countries with the new interconnection between Norway, Denmark, and Poland.
The project group brings benefits in monetised terms as a **reduction of the cost of gas supply**. In the reference supply price configuration these benefits can be estimated around 126 Mln EUR/y (on average) in the existing infrastructure level. Such benefits can be partially explained by the savings in transportation costs by the utilization of the new route. Sensitivity analysis on tariffs shows in fact that these benefits are sensible to the tariff levels and increase for lower tariff assumptions, whereas sharply decrease under higher tariff assumptions.

Additional benefits compared to the reference situation can be observed in the case of Russian supply expensive (186 Mln EUR/y) on average in the existing infrastructure level). Such benefits are mainly driven by the fact that the project group allows some countries further to rely on alternative sources (Norwegian gas and LNG) in case of more expensive Russian gas prices.
In the low and advanced infrastructure levels, market integration benefits from the project group are reduced compared to the existing infrastructure level, this is explained by implementation of competing projects in the area which allow alternative supply sources to arrive to Poland, Baltic Region and its neighbouring countries.

Distributed Energy

Benefits explained (but Sustainability) [ENTSOG]

> **Security of Supply:**

In the existing infrastructure level, the project group **fully mitigates the risk of demand curtailment** in Poland under 2-week (in 2030 and 2040) and 2-week dunkelflaute (in 2030) climatic stress cases. Additionally, under peak-day climatic stress case the project group **significantly reduces the risk of demand curtailment** in Poland from 2030. When comparing Distributed Energy (DE) with National Trends (NT) demand scenario, it is observed how for NT, Poland does no longer face demand curtailment under peak-day climatic stress case and it still have some additional remaining flexibility to face this event, however for DE, due to the increase of Polish gas demand, from 2030 Poland will no longer have additional flexibility, and therefore, face some demand curtailment.
Additionally, in the existing infrastructure level, the project group also **increases remaining flexibility** under peak-day in Denmark, and also **increases remaining flexibility** in Poland from 2025 under 2-week and 2-week dunkelflaute climatic stress conditions and in 2025 under peak-day stress case.
This situation further improves in the low infrastructure level, where the project group together with FID projects fully mitigates the risk of demand curtailment in Poland for peak-day in 2030 and 2-week dunkelflaute in 2040 and also some provides additional flexibility under these climatic stress conditions.

Regarding the supply import routes disruptions, in case of Ukraine and Belarus disruptions the project group reduces significantly risk of demand curtailment in Poland thanks to a better access to the Norwegian gas supplies. More specifically:
In case of **Belarus disruption**, project group fully mitigates the risk of demand curtailment in 2025, however, from 2030 due to the increase of demand in Poland, despite significantly reducing the risk of demand curtailment, the project group is not able to fully mitigate demand curtailment. This situation further improves in the low infrastructure level, where risk of demand curtailment is fully mitigated from 2030 under 2-week cold spell and 2-week dunkelflaute climatic stress cases and partially mitigated under peak day. In the advanced infrastructure level, the projects group fully mitigates all risk of demand curtailment.

In case of **Ukrainian disruption**, projects group **mitigates the risk of demand curtailment** in existing infrastructure level from 2030 for all climatic stress cases (Peak, 2-week and 2-week DF) in Poland. This situation improves in the low and advanced infrastructure levels, where **the project group fully mitigates the risk of demand curtailment** for 2-week and 2-week dunkelflaute climatic stress conditions in the low and for peak-day in the advanced. These improvements are explained by the higher interconnection and entry capacities of Poland in the low and advanced infrastructure levels.
As described above for non-disruption cases, for both supply route disruptions (Ukranian and Belarus) curtailment rates are higher due to higher demand in Poland in this demand scenario compared to National Trends.

In the case of **Baltics Finland disruption** and only for **low infrastructure level**, due to the increase of demand in Poland for this demand scenario, and considering that FID project GIPL (Gas Interconnection Poland-Lithuania) allows Baltic countries to cooperate

with Poland, even though there is enough flow to covers Baltic's region demand, Lithuania and Latvia will face risk of demand curtailment only in 2030, driven by the increased cooperation with Poland through GIPL.

For **Single Largest Infrastructure Disruption in Poland** (SLID-PL indicator) with the project group the largest infrastructure will change to the new interconnection with Denmark (instead of Belarus import route). In case of disruption, Poland could also flow gas using the Belarus transit route and **fully mitigating the risk of demand curtailment** in Poland in 2025 and significantly reducing this risk from 2030.

> **Competition:**

By improving the connection of the gas transmission systems in Poland and Denmark with the upstream system in the North Sea with a view of transporting Norwegian gas and potentially LNG to the countries in the Baltic region and Central-Eastern Europe, the group realisation also allows to **significantly reduce the dependence from Russian gas** in Sweden, Poland and Denmark and to a lower extent, also to other neighbouring countries in North-West Europe. Compared to the National Trends (NT) demand scenario, lower dependency levels are reached in 2040, this decrease is explained by the higher production of RES gases considered by Distributed Energy demand scenario.
Further reducing the LICD indicator value, the projects group **contributes to the diversification of entry points** in Denmark, Sweden, and Poland.
For Distributed Energy demand scenario, Finland, Estonia, Latvia **will have significant access to Norwegian gas** in low infrastructure level (2030) thanks to the implementation of the project group.

> **Market integration:**

The project group brings benefits to Poland and globally to Northern Eastern countries with the new interconnection between Norway, Denmark and Poland. The project group brings benefits in monetised terms as a **reduction of the cost of gas supply**. In the reference supply price configuration this can be estimated around 195 Mln EUR/y (on average) in the existing infrastructure level. Such benefits can be partially explained by the savings in transportation costs thanks to the utilisation of this new alternative route. This is confirmed by the tariff sensitivity analysis, were benefits considerably increase for lower tariff assumptions, whereas sharply decrease under higher tariff assumptions.
Additional benefits compared to the reference situation can be observed in the case of expensive Russian gas (247 Mln EUR/y on average in the existing infrastructure level). Such benefits are driven by the fact that the project group allows the Baltic region and Poland to further to rely on alternative sources (mainly Norwegian gas but also LNG) in case of more expensive Russian gas prices. In the low and advanced infrastructure levels, market integration benefits from the project group are reduced compared to the existing infrastructure level, this is explained by implementation of competing projects in the area which allow alternative supply sources to arrive to Poland and its neighbouring countries.
Bidirectionality is improved with the creation of capacity between Denmark and Poland.

Global Ambition

Benefits explained (but Sustainability) [ENTSOG]

> **Security of Supply:**

In the existing infrastructure level, the project group **fully mitigates the risk of demand curtailment** in Poland in 2030 under 2-week and 2-week dunkelflaute climatic stress cases. Additionally, the project group **significantly reduces the risk of demand curtailment** in Poland for these same stress cases in 2040 and for peak-day from 2030.
Moreover, in the existing infrastructure level, the project group also **increases remaining flexibility** up to its maximum level under peak-day stress case in Denmark, and **significantly increases remaining flexibility** in 2025 and 2030 under all climatic stress cases. This situation further improves in the low infrastructure level, where the project group together with FID projects **fully mitigates the risk of demand curtailment** in Poland for peak-day in 2030 and for 2-weeks and 2-weeks dunkelflaute in 2040. Furthermore, additional improvements are found in the advanced infrastructure level, where project group fully mitigates the risk of demand curtailment under peak-day in 2040.

Regarding the supply import routes disruptions, in case of Ukraine and Belarus disruptions the project group reduces significantly risk of demand curtailment in Poland due to better access to new source of gas (Norway). More specifically:

In case of **Belarus disruption**, project group fully mitigates the risk of demand curtailment in 2025, however, from 2030 due to the increase of demand in Poland, despite significantly reducing the risk of demand curtailment, the project group is not able to fully mitigate demand curtailment. Situation further improves in the low infrastructure level, where risk of demand curtailment is fully mitigated from 2030 under 2-week and 2-week dunkelflaute climatic stress cases and partially mitigated under peak day. In the advanced infrastructure level, the projects group fully mitigates all risk of demand curtailment.

In case of **Ukrainian disruption**, projects group **fully mitigates the risk of demand curtailment** in Poland existing infrastructure level in 2030 for 2-week and 2-week DF, whereas partially mitigates the risk of demand curtailment for all climatic stress cases in 2040 and for peak case in 2030. This situation improves in the low infrastructure level, where **the project group fully mitigates the risk of demand curtailment** in Poland for 2-week and 2-week dunkelflaute in 2040, whereas in the advanced it **fully mitigates the risk of demand curtailment** in Poland and Denmark peak-day 2030. These improvements are explained by the higher interconnection and entry capacities of Poland in the low and advanced infrastructure levels.
As described above for non-disruption cases, for both supply route disruptions (Ukranian and Belarus) curtailment rates are higher due to higher demand in Poland in this demand scenario compared to National Trends.

In the case of **Baltics Finland disruption** and only for **Low infrastructure level**, due to the increase of demand in Poland for this demand scenario, and considering that FID project GIPL (Gas Interconnection Poland-Lithuania) allows Baltic countries to cooperate with Poland, even though there is enough flow to covers Baltic's region demand, Lithuania and Latvia will face risk of demand curtailment only in 2030 and 2040, driven by the increased cooperation with Poland through GIPL.

For **Single Largest Infrastructure Disruption in Poland** (SLID-PL indicator) with the project group the largest infrastructure will change to the new interconnection with Denmark (instead of Belarus import route). In case of disruption, Poland could also flow gas using the Belarus transit route and **fully mitigating the risk of demand curtailment** in Poland in 2025 and significantly reducing this risk from 2030.

> **Competition:**

Improving the connection of the gas transmission systems in Poland, Denmark and the upstream system in the North Sea with a view of transporting Norwegian gas and LNG to the countries in the Baltic Sea region and Central-Eastern Europe, the group realisation also allows to **significantly reduce the dependence from Russian gas** in Sweden, Poland and Denmark.
Further reducing the LICD indicator value, the projects group **contributes to the diversification of entry points** in Denmark, Sweden and Poland.
Thanks to the implementation of the project group, for Global Ambition demand scenario, Finland, Estonia, Latvia **will have significant access to Norwegian gas** in low (2040) and advanced (2030 and 2040) thanks to the implementation of the project group and the FID and Advanced projects.

> **Market integration:**

The project group brings benefits to Poland and globally to Northern Eastern countries with the new interconnection between Norway, Denmark and Poland.
The project group brings benefits in monetised terms as a **reduction of the cost of gas supply**. In the reference supply price configuration this can be estimated around 148 Mln EUR/y (on average) in the existing infrastructure level. Such benefits can be partially explained by the savings in transportation costs thanks to the utilisation of this new alternative route. This is confirmed by the sensitivity analysis on tariffs, where benefits significantly increase with lower tariffs assumptions while drastically decrease in case of higher tariffs.
Additional benefits compared to the reference situation can be observed in the case of Russian supply minimisation (208 Mln EUR/y) on average in the existing infrastructure level). Such benefits are driven by the fact that the Project Group allows some countries further to rely on alternative sources (Norwegian gas and LNG) in case of more expensive Russian gas prices.
In the low and advanced infrastructure levels, market integration benefits from the project group are reduced compared to the existing infrastructure level, this is explained by implementation of competing projects in the area which allow alternative supply sources to arrive to Poland and its neighbouring countries.
Bidirectionality is improved with the creation of capacity between Denmark and Poland.

Sustainability benefits explained [ENTSOG]

The ENTSOG analysis shows that, in the yearly assessment, the projects group realisation enhances, mainly in Poland and to a limited extent in Denmark, the replacement of more polluting fuels with natural gas, which enables fuel switch savings between 6.2-34.5 MEUR/y under existing infrastructure level and between 4.8-14.8 MEUR/y under low infrastructure level. The table below shows the related reduction in terms of CO2eq/y for each scenario and infrastructure level and over the 25-years assessment period of the project group. The contribution of the project group to the CO2eq/y emissions (positive number indicate reduction in CO2eq/y emissions) is also displayed for the three simulation configurations that consider different level of tariffs for the project group.

Sustainability		EXISTING			LOW			ADVANCED		
CO2 and Other externalities (KtCO2 eq/y)	Reference	94 / 137	441 / 533	231 / 330	73 / 107	347 / 420	196 / 280	50 / 74	236 / 285	136 / 188
	Lower Tariff Sensitivity	114 / 160	441 / 534	252 / 359	89 / 126	350 / 420	203 / 284	61 / 87	236 / 288	136 / 194
	Higher Tariff Sensitivity	92 / 114	308 / 357	73 / 101	-2 / 7	294 / 342	80 / 115	-4 / 1	85 / 102	7 / 15

The minimum and the maximum values displayed in the table above refer respectively to the CO2eq/y savings in case emissions from the additional gas demand increase not replacing other more polluting fuels are counted in the overall CO2eq emissions assessment or they are considered neutral. For more information, please consult the Project Fiche introduction document and the TYNDP 2020 Annex D.

Savings have been allocated to the project group based on the flows resulting from ENSTOG simulations under the reference supply price configurations and according to the methodology described in TYNDP 2020 Annex D. Such methodology is also based on the assumption that the use of the infrastructures already included in the different infrastructure levels (versus which the project group is assessed) is always prioritised.

The highest contribution of the project is observed under the existing infrastructure level, and in Distributed Energy scenario. This scenario is the one characterised by the highest increase in the gas demand in 2030 and 2040 for Poland (in the power sector and transport). Fort this reason benefits are higher beyond 2030 even if the project is assessed by ENTSOG from its first full year of operation, in this case year 2023.

TYNDP 2020 ENTSOG and ENTSO-E scenario storylines have identified for DE and GA scenarios the need for hydrogen imports to satisfy the hydrogen demand that cannot be covered by European production of hydrogen (e.g. through power-to-gas). In the future, hydrogen demand not satisfied by locally produced hydrogen could be covered by directly imported hydrogen through hydrogen-compatible infrastructures and/or by natural gas through natural gas pipelines or LNG terminals. In TYNDP 2020 ENTSOG has considered fuel switch benefits from hydrogen import in the form of natural gas import then converted into hydrogen in Europe. For project group BEMIP_04, such benefits represent, on average, 10% of the benefits from fuel switch in 2030 in both Distributed Energy and Global Ambition scenarios and 80% in 2040.

Observing the evolution of benefits among the assessed years (section C.3), benefits are observed also before 2030. Benefits are similar in the three scenarios since the contribution of hydrogen import is rather limited before 2030 and can be linked to natural gas replacing coal and oil in the final and power sectors.

Sustainability benefits explained [Promoter]

In addition to ENTSOG's analysis, the promoter has provided the following country-specific information.
The Polish energy market is largely based on solid fuels (i.e. coal and lignite). 47% of the primary energy in Poland comes from solid fuels, while the share of low emission natural gas and renewables is limited (15% and 13%, respectively). The magnitude of solid fuels is especially visible in the electricity and heating generation sectors considering that 74% of electricity in Poland is produced from coal and lignite while the share of coal in heating totals 72%. On top of that, 80% of district heating systems in Poland are inefficient and thus require modernisation and fuel switch. Households in Poland consume 87% of coal used across the whole EU for heating purposes. Air pollution resulting from burning high emission and low-quality fuels, especially in the winter period, constitutes a serious socio-economic problem in Poland with an adverse effect on public health and life expectancy. The same also applied to other EU member states located in Central-Eastern Europe.
Against this background the Baltic Pipe is instrumental as it will bring environmental benefits and the same time accommodate the need for affordable solutions for the society:

- Baltic Pipe will deliver natural gas as a low emission energy source to the power, heating sectors and other industries and enables CO_2 reduction with the switch from carbon intensive fuels towards low emission sources.
- Natural gas supplied via Baltic Pipe will provide reliable and flexible back-up for variable renewables that will be deployed in the coming years in Poland (e.g. wind power, solar PV).
- Natural gas is an efficient energy source that may be used efficiently to mitigate air pollution resulting from burning high emission and low-quality fuels. This may be achieved in a timely and cost-efficient manner with the connection of households, heat and power plants to the gas grid and the wider use of LNG and CNG in inland and maritime transport.
- Gas grids contribute towards the deployment of renewable and decarbonised gases (biogas, green and blue hydrogen, synthetic methane) through adapting the existing infrastructure or by considering relevant requirements for new investments.

C.2 Quantitative benefits [ENTSOG]

The following tables display all the benefits quantified by ENTSOG through specific indicators and stemming from the realisation of the considered project group. Some of those benefits are measured through quantitative indicators (i.e. SLID and Curtailment rate) and monetised ex-post. Their monetised value is displayed in section E. When assessing those type of benefits, it is important to avoid any double counting considering them both in quantitative and monetised terms.

EXISTING Infrastructure Level – National Trends

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			NT			NT		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
Commercial Supply Access (CSA)												
Denmark										2	3	1
Sweden										2	3	1
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	10,000	5,111	-4,889	10,000	5,143	-4,857	10,000	5,092	-4,908	10,000	5,043	-4,957
Poland	3,996	2,969	-1,028	3,996	2,969	-1,028	3,996	2,969	-1,028	3,996	2,969	-1,028
Sweden	10,000	5,111	-4,889	10,000	5,143	-4,857	10,000	5,092	-4,908	10,000	5,043	-4,957
MASD-RU												
Austria	43%	40%	-3%	46%	43%	-3%	43%	40%	-3%	45%	39%	-6%
Bosnia Herzegovina	44%	40%	-4%	46%	43%	-3%				45%	39%	-6%
Croatia	44%	40%	-4%	46%	43%	-3%	43%	41%	-2%	45%	39%	-6%
Czech Republic	43%	40%	-3%				43%	40%	-3%	45%	39%	-6%
Denmark	43%	22%	-21%	45%	25%	-20%	42%	15%	-27%	44%	30%	-14%
Germany	41%	38%	-3%	43%	41%	-3%	42%	39%	-2%	44%	39%	-5%
Hungary	44%	40%	-4%	46%	43%	-3%	43%	40%	-3%	45%	39%	-6%
Poland	43%	22%	-21%	46%	25%	-20%	43%	15%	-28%	45%	30%	-15%
Serbia	44%	40%	-4%	46%	43%	-3%				45%	39%	-6%
Slovakia	44%	40%	-4%	46%	43%	-3%	43%	40%	-3%	45%	39%	-6%
Slovenia	43%	40%	-3%	46%	43%	-3%	43%	40%	-3%	45%	39%	-6%
Sweden	43%	22%	-21%	45%	25%	-20%	42%	15%	-27%	44%	30%	-14%
Security of Supply												
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland	-3%	0%	3%	-3%	0%	3%	-1%	0%	1%	-18%	0%	18%
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland	-4%	0%	4%	-4%	0%	4%	-11%	0%	11%	-26%	-5%	21%
Belarus Disruption Curtailment Rate Peak Day (%)												
Poland	-9%	0%	9%	-9%	0%	9%	-10%	0%	10%	-31%	-13%	19%
Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland										-8%	0%	8%
Curtailment Rate Peak Day (%)												
Poland										-15%	0%	15%
Remaining Flexibility 2-Week Cold Spell (%)												
Germany										67%	71%	4%
Poland	22%	51%	29%	22%	51%	29%	24%	52%	28%	2%	25%	23%
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Germany				98%	100%	1%	84%	86%	2%	65%	68%	3%
Poland	21%	50%	28%	21%	50%	28%	11%	36%	25%	0%	13%	13%
Remaining Flexibility Peak day (%)												
Denmark	68%	100%	32%	65%	100%	35%	83%	100%	17%	62%	89%	27%
Poland	14%	40%	26%	14%	40%	26%	11%	36%	25%	0%	4%	4%
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark										6%	0%	-6%
Poland										15%	0%	-15%
Sweden										6%	0%	-6%
Single Largest Infrastructure Disruption (SLID)-Poland												
Poland	10%	0%	-10%	10%	0%	-10%	11%	0%	-11%	32%	15%	-17%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland										-8%	0%	8%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland							-1%	0%	1%	-17%	0%	17%
Ukraine Disruption Curtailment Rate Peak Day (%)												
Poland										-23%	-4%	19%
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

LOW Infrastructure Level – National Trends

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			NT			NT		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	10,000	5,111	-4,889	10,000	5,115	-4,885	10,000	5,092	-4,908	10,000	5,043	-4,957
Poland	2,500	2,066	-435	2,500	2,066	-435	2,500	2,066	-435	2,500	2,066	-435
Sweden	10,000	5,111	-4,889	10,000	5,115	-4,885	10,000	5,092	-4,908	10,000	5,043	-4,957
MASD-RU												
Austria	30%	25%	-5%	33%	29%	-4%	30%	26%	-4%	30%	24%	-6%
Croatia	28%	25%	-3%	32%	28%	-4%	29%	26%	-3%	29%	23%	-6%
Czech Republic	30%	25%	-5%	33%	29%	-4%	30%	26%	-4%	30%	24%	-6%
Denmark										30%	23%	-7%
Germany	30%	25%	-5%	33%	29%	-4%	30%	26%	-4%	29%	23%	-6%
Hungary	30%	25%	-5%	33%	29%	-4%	30%	26%	-4%	30%	24%	-6%
Lithuania	30%	23%	-7%	33%	25%	-9%	29%	15%	-14%	29%	23%	-6%
Netherlands	29%	25%	-4%	32%	28%	-4%	29%	26%	-3%	29%	23%	-6%
Poland	30%	23%	-7%	33%	25%	-8%	30%	15%	-15%	30%	23%	-7%
Romania							30%	26%	-4%			
Slovakia	30%	25%	-5%	33%	29%	-4%	30%	26%	-4%	30%	24%	-6%
Slovenia	27%	25%	-2%	33%	29%	-4%	29%	26%	-3%	29%	23%	-6%
Sweden										30%	23%	-7%
Security of Supply												
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland										-4%	0%	4%
Belarus Disruption Curtailment Rate Peak Day (%)												
Poland										-12%	0%	12%
Remaining Flexibility 2-Week Cold Spell (%)												
Poland	52%	82%	30%	52%	83%	31%	54%	82%	28%	26%	49%	23%
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Denmark										98%	100%	2%
Germany										84%	86%	2%
Poland	51%	80%	29%	51%	81%	30%	37%	62%	25%	14%	34%	21%
Remaining Flexibility Peak day (%)												
Denmark	53%	100%	47%	50%	100%	50%	67%	100%	33%	44%	100%	56%
Germany							37%	38%	1%			
Poland	41%	68%	27%	41%	69%	28%	37%	62%	25%	5%	24%	19%
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark										6%	0%	-6%
Sweden										6%	0%	-6%
Single Largest Infrastructure Disruption (SLID)-Poland												
Poland										12%	0%	-12%
Ukraine Disruption Curtailment Rate Peak Day (%)												
Poland										-4%	0%	4%
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

ADVANCED Infrastructure Level – National Trends

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			NT			NT		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
Commercial Supply Access (CSA)												
Cyprus							4	5	1	4	5	1
North Noth Macedonia							3	4	1	2	3	1
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	7,118	4,181	-2,937	7,130	4,187	-2,943	7,067	4,156	-2,912	6,901	4,084	-2,817
Poland	2,115	1,781	-335	2,115	1,781	-335	2,115	1,781	-335	2,115	1,781	-335
Sweden	7,118	4,181	-2,937	7,130	4,187	-2,943	7,067	4,156	-2,912	6,901	4,084	-2,817
MASD-RU												
Austria							20%	17%	-3%			
Czech Republic							20%	17%	-3%			
Germany							20%	17%	-3%			
Netherlands							20%	17%	-3%			
Poland							20%	17%	-3%	21%	18%	-3%
Slovakia							20%	17%	-3%			
Security of Supply												
Remaining Flexibility 2-Week Cold Spell (%)												
Poland	87%	100%	13%	87%	100%	13%	88%	100%	12%	54%	77%	23%
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Denmark										98%	100%	2%
Germany										92%	92%	1%
Poland	85%	100%	15%	85%	100%	15%	68%	93%	25%	39%	60%	21%
Remaining Flexibility Peak day (%)												
Denmark	53%	100%	47%	50%	100%	50%	67%	100%	33%	44%	100%	56%
Poland	73%	99%	26%	73%	99%	26%	67%	92%	25%	28%	47%	19%
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark										6%	0%	-6%
Sweden										6%	0%	-6%
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

EXISTING Infrastructure Level – Distributed Energy

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			DE			DE		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	10,000	5,111	-4,889	10,000	5,143	-4,857	10,000	5,405	-4,595	10,000	5,272	-4,728
Poland	3,996	2,969	-1,028	3,996	2,969	-1,028	3,996	2,969	-1,028	3,996	2,969	-1,028
Sweden	10,000	5,111	-4,889	10,000	5,143	-4,857	10,000	5,405	-4,595	10,000	5,272	-4,728
MASD-LNGall												
Poland										4%	0%	-4%
MASD-RU												
Austria	43%	40%	-3%	46%	43%	-3%	42%	36%	-6%	23%	16%	-7%
Bosnia Herzegovina	44%	40%	-4%	46%	43%	-3%	42%	36%	-6%	23%	17%	-6%
Croatia	44%	40%	-4%	46%	43%	-3%	42%	36%	-6%	23%	17%	-6%
Czech Republic	43%	40%	-3%				42%	36%	-6%	23%	16%	-7%
Denmark	43%	22%	-21%	45%	25%	-20%	41%	33%	-8%	22%	16%	-6%
Germany	41%	38%	-3%	43%	41%	-3%	41%	35%	-6%	22%	16%	-6%
Hungary	44%	40%	-4%	46%	43%	-3%	42%	36%	-6%	23%	17%	-6%
Poland	43%	22%	-21%	46%	25%	-20%	42%	33%	-9%	27%	17%	-11%
Serbia	44%	40%	-4%	46%	43%	-3%	42%	36%	-6%	23%	17%	-6%
Slovakia	44%	40%	-4%	46%	43%	-3%	42%	36%	-6%	23%	17%	-6%
Slovenia	43%	40%	-3%	46%	43%	-3%	42%	36%	-6%	23%	16%	-7%
Sweden	43%	22%	-21%	45%	25%	-20%						
Security of Supply												
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland	-3%	0%	3%	-3%	0%	3%	-29%	-10%	19%	-30%	-13%	17%
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland	-4%	0%	4%	-4%	0%	4%	-30%	-11%	19%	-33%	-16%	17%
Belarus Disruption Curtailment Rate Peak Day (%)												
Poland	-9%	0%	9%	-9%	0%	9%	-39%	-23%	16%	-44%	-31%	14%
Curtailment Rate 2-Week Cold Spell (%)												
Poland							-12%	0%	12%	-15%	0%	15%
Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland							-13%	0%	13%	-19%	-2%	17%
Curtailment Rate Peak Day (%)												
Poland							-25%	-9%	16%	-32%	-19%	14%
Remaining Flexibility 2-Week Cold Spell (%)												
Denmark							86%	100%	14%			
Poland	22%	51%	29%	22%	51%	29%	0%	7%	7%	0%	2%	2%
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Denmark							53%	91%	38%			
Poland	21%	50%	28%	21%	50%	28%	0%	6%	6%			
Remaining Flexibility Peak day (%)												
Denmark	68%	100%	32%	65%	100%	35%						
Poland	14%	40%	26%	14%	40%	26%						
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark							27%	12%	-15%			
Poland							25%	13%	-12%	32%	19%	-14%
Sweden							28%	12%	-16%			
Single Largest Infrastructure Disruption (SLID)-Poland												
Poland	10%	0%	-10%	10%	0%	-10%	39%	25%	-14%	45%	32%	-12%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland							-21%	-1%	19%	-23%	-6%	17%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland							-21%	-2%	19%	-26%	-9%	17%
Ukraine Disruption Curtailment Rate Peak Day (%)												
Poland							-32%	-16%	16%	-38%	-25%	14%
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

LOW Infrastructure Level – Distributed Energy

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			DE			DE		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
Commercial Supply Access (CSA)												
Estonia							2	3	1			
Finland							2	3	1			
Latvia							2	3	1			
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	10,000	5,111	-4,889	10,000	5,115	-4,885	10,000	5,115	-4,885	10,000	5,115	-4,885
Poland	2,500	2,066	-435	2,500	2,066	-435	2,500	2,066	-435	2,500	2,066	-435
Sweden	10,000	5,111	-4,889	10,000	5,115	-4,885	10,000	5,115	-4,885	10,000	5,115	-4,885
MASD-RU												
Austria	30%	25%	-5%	33%	29%	-4%	28%	23%	-5%	7%	1%	-6%
Croatia	28%	25%	-3%	32%	28%	-4%						
Czech Republic	30%	25%	-5%	33%	29%	-4%	29%	23%	-6%	7%	1%	-6%
Estonia							28%	23%	-5%			
Finland							29%	23%	-6%			
Germany	30%	25%	-5%	33%	29%	-4%	28%	22%	-6%	7%	0%	-7%
Hungary	30%	25%	-5%	33%	29%	-4%	28%	22%	-6%	7%	0%	-7%
Latvia							28%	23%	-5%			
Lithuania	30%	23%	-7%	33%	25%	-9%	28%	22%	-6%			
Netherlands	29%	25%	-4%	32%	28%	-4%	28%	22%	-6%	6%	0%	-6%
Poland	30%	23%	-7%	33%	25%	-8%	29%	23%	-6%	7%	1%	-6%
Romania										6%	0%	-6%
Slovakia	30%	25%	-5%	33%	29%	-4%	29%	23%	-6%	7%	1%	-6%
Slovenia	27%	25%	-2%	33%	29%	-4%						
Security of Supply												
Baltics Finland Disruption Curtailment Rate Peak Day (%)												
Denmark							-4%	0%	4%			
Latvia							-8%	0%	8%			
Lithuania							-8%	0%	8%			
Poland							-9%	0%	9%	-18%	-5%	14%
Sweden							-5%	0%	5%			
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland							-9%	0%	9%	-12%	0%	12%
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland							-10%	0%	10%	-16%	0%	16%
Belarus Disruption Curtailment Rate Peak Day (%)												
Denmark							-4%	0%	4%			
Poland							-22%	-7%	15%	-30%	-17%	14%
Sweden							-5%	0%	5%			
Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland										-2%	0%	2%
Curtailment Rate Peak Day (%)												
Denmark							-4%	0%	4%			
Poland							-8%	0%	8%	-18%	-5%	14%
Sweden							-5%	0%	5%			
Remaining Flexibility 2-Week Cold Spell (%)												
Denmark							68%	100%	32%			
Poland	52%	82%	30%	52%	83%	31%	8%	27%	19%	3%	20%	17%
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Denmark							36%	100%	64%	66%	100%	34%
Poland	51%	80%	29%	51%	81%	30%	7%	26%	19%	0%	16%	16%
Remaining Flexibility Peak day (%)												
Denmark	53%	100%	47%	50%	100%	50%	0%	31%	31%			
Poland	41%	68%	27%	41%	69%	28%	0%	7%	7%			
Sweden							0%	6%	6%			
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark							27%	0%	-27%			
Poland							8%	0%	-8%	18%	5%	-14%
Sweden							28%	0%	-28%			
Single Largest Infrastructure Disruption (SLID)-Poland												
Denmark							6%	0%	-6%			
Poland							23%	8%	-14%	30%	18%	-12%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland							-2%	0%	2%	-5%	0%	5%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland							-2%	0%	2%	-8%	0%	8%
Ukraine Disruption Curtailment Rate Peak Day (%)												
Denmark							-4%	0%	4%			
Poland							-15%	-1%	15%	-24%	-11%	14%
Sweden							-5%	0%	5%			
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

ADVANCED Infrastructure Level – Distributed Energy

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			DE			DE		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
Commercial Supply Access (CSA)												
Cyprus							4	5	1			
North Noth Macedonia							3	4	1	4	5	1
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	7,118	4,181	-2,937	7,130	4,187	-2,943	7,130	4,187	-2,943	7,130	4,187	-2,943
Poland	2,115	1,781	-335	2,115	1,781	-335	2,115	1,781	-335	2,115	1,781	-335
Sweden	7,118	4,181	-2,937	7,130	4,187	-2,943	7,130	4,187	-2,943	7,130	4,187	-2,943
MASD-RU												
Austria							22%	17%	-5%			
Czech Republic							22%	17%	-5%			
Germany							22%	17%	-5%			
Netherlands							22%	17%	-6%			
Poland							23%	17%	-6%			
Slovakia							22%	17%	-5%			
Security of Supply												
Belarus Disruption Curtailment Rate Peak Day (%)												
Denmark							-4%	0%	4%			
Poland							-3%	0%	3%	-14%	0%	14%
Sweden							-5%	0%	5%			
Curtailment Rate Peak Day (%)												
Denmark							-4%	0%	4%			
Poland										-2%	0%	2%
Sweden							-5%	0%	5%			
Remaining Flexibility 2-Week Cold Spell (%)												
Denmark							68%	100%	32%			
Poland	87%	100%	13%	87%	100%	13%	31%	50%	19%	23%	40%	17%
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Denmark							36%	100%	64%	66%	100%	34%
Poland	85%	100%	15%	85%	100%	15%	30%	49%	19%	20%	37%	17%
Remaining Flexibility Peak day (%)												
Denmark	53%	100%	47%	50%	100%	50%	0%	92%	92%	57%	100%	43%
Germany										94%	98%	4%
Italy										57%	58%	1%
Poland	73%	99%	26%	73%	99%	26%	11%	26%	15%	0%	12%	12%
Sweden							0%	6%	6%			
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark							27%	0%	-27%			
Poland										2%	0%	-2%
Sweden							28%	0%	-28%			
Single Largest Infrastructure Disruption (SLID)-Poland												
Denmark							6%	0%	-6%			
Poland							3%	0%	-3%	14%	2%	-12%
Ukraine Disruption Curtailment Rate Peak Day (%)												
Denmark							-4%	0%	4%			
Poland							-4%	0%	4%	-15%	-1%	14%
Sweden							-5%	0%	5%			
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

EXISTING Infrastructure Level – Global Ambition

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			GA			GA		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
Commercial Supply Access (CSA)												
Denmark										2	3	1
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	10,000	5,111	-4,889	10,000	5,143	-4,857	10,000	5,428	-4,572	10,000	5,428	-4,572
Poland	3,996	2,969	-1,028	3,996	2,969	-1,028	3,996	2,969	-1,028	3,996	2,969	-1,028
Sweden	10,000	5,111	-4,889	10,000	5,143	-4,857	10,000	5,428	-4,572	10,000	5,428	-4,572
MASD-RU												
Austria	43%	40%	-3%	46%	43%	-3%	47%	43%	-4%	42%	37%	-5%
Bosnia Herzegovina	44%	40%	-4%	46%	43%	-3%	48%	43%	-5%	42%	37%	-5%
Croatia	44%	40%	-4%	46%	43%	-3%	47%	43%	-4%	42%	37%	-5%
Czech Republic	43%	40%	-3%				47%	43%	-4%	42%	37%	-5%
Denmark	43%	22%	-21%	45%	25%	-20%	47%	35%	-12%	42%	33%	-9%
Germany	41%	38%	-3%	43%	41%	-3%	46%	41%	-5%	42%	36%	-6%
Hungary	44%	40%	-4%	46%	43%	-3%	47%	43%	-4%	42%	37%	-5%
Poland	43%	22%	-21%	46%	25%	-20%	48%	36%	-12%	42%	34%	-8%
Serbia	44%	40%	-4%	46%	43%	-3%	48%	43%	-5%	42%	37%	-5%
Slovakia	44%	40%	-4%	46%	43%	-3%	47%	43%	-4%	42%	37%	-5%
Slovenia	43%	40%	-3%	46%	43%	-3%	47%	43%	-4%	42%	37%	-5%
Sweden	43%	22%	-21%	45%	25%	-20%	47%	35%	-12%			
Security of Supply												
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland	-3%	0%	3%	-3%	0%	3%	-27%	-7%	20%	-34%	-17%	17%
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland	-4%	0%	4%	-4%	0%	4%	-27%	-8%	19%	-35%	-18%	17%
Belarus Disruption Curtailment Rate Peak Day (%)												
Poland	-9%	0%	9%	-9%	0%	9%	-38%	-21%	16%	-46%	-33%	14%
Curtailment Rate 2-Week Cold Spell (%)												
Poland							-9%	0%	9%	-19%	-2%	17%
Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland							-11%	0%	11%	-20%	-3%	17%
Curtailment Rate Peak Day (%)												
Poland							-24%	-7%	16%	-34%	-21%	14%
Remaining Flexibility 2-Week Cold Spell (%)												
Denmark							77%	100%	23%			
Germany							74%	77%	3%			
Poland	22%	51%	29%	22%	51%	29%	0%	10%	10%			
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Denmark							67%	100%	33%			
Germany				98%	100%	1%	72%	74%	2%			
Poland	21%	50%	28%	21%	50%	28%	0%	9%	9%			
Remaining Flexibility Peak day (%)												
Denmark	68%	100%	32%	65%	100%	35%						
Poland	14%	40%	26%	14%	40%	26%						
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark							36%	12%	-24%	24%	20%	-4%
Poland							24%	12%	-11%	34%	22%	-13%
Sweden							36%	32%	-4%	24%	20%	-4%
Single Largest Infrastructure Disruption (SLID)-Poland												
Poland	10%	0%	-10%	10%	0%	-10%	38%	24%	-15%	47%	34%	-12%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland							-18%	0%	18%	-26%	-9%	17%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland							-19%	0%	19%	-27%	-10%	17%
Ukraine Disruption Curtailment Rate Peak Day (%)												
Poland							-31%	-14%	16%	-40%	-27%	14%
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

LOW Infrastructure Level – Global Ambition

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			GA			GA		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
Commercial Supply Access (CSA)												
Estonia										3	4	1
Finland										3	4	1
Latvia										3	4	1
Poland										3	4	1
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	10,000	5,111	-4,889	10,000	5,115	-4,885	10,000	5,115	-4,885	10,000	5,115	-4,885
Poland	2,500	2,066	-435	2,500	2,066	-435	2,500	2,066	-435	2,500	2,066	-435
Sweden	10,000	5,111	-4,889	10,000	5,115	-4,885	10,000	5,115	-4,885	10,000	5,115	-4,885
MASD-RU												
Austria	30%	25%	-5%	33%	29%	-4%	33%	29%	-4%	26%	20%	-6%
Croatia	28%	25%	-3%	32%	28%	-4%				23%	20%	-3%
Czech Republic	30%	25%	-5%	33%	29%	-4%	33%	29%	-4%	27%	21%	-6%
Denmark							33%	29%	-4%			
Germany	30%	25%	-5%	33%	29%	-4%	33%	29%	-4%	26%	21%	-5%
Hungary	30%	25%	-5%	33%	29%	-4%	32%	29%	-3%	26%	20%	-6%
Lithuania	30%	23%	-7%	33%	25%	-9%	33%	29%	-4%			
Netherlands	29%	25%	-4%	32%	28%	-4%	33%	29%	-4%	26%	20%	-6%
Poland	30%	23%	-7%	33%	25%	-8%	33%	29%	-4%	27%	21%	-6%
Romania										26%	20%	-6%
Slovakia	30%	25%	-5%	33%	29%	-4%	33%	29%	-4%	27%	21%	-6%
Slovenia	27%	25%	-2%	33%	29%	-4%						
Sweden							33%	29%	-4%			
Security of Supply												
Baltics Finland Disruption Curtailment Rate Peak Day (%)												
Denmark							-5%	0%	5%			
Latvia							-6%	0%	6%			
Lithuania							-6%	0%	6%	-9%	-6%	3%
Poland							-7%	0%	7%	-20%	-7%	13%
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland							-6%	0%	6%	-16%	0%	16%
Belarus Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland							-7%	0%	7%	-17%	0%	17%
Belarus Disruption Curtailment Rate Peak Day (%)												
Denmark							-5%	0%	5%			
Poland							-21%	-5%	15%	-32%	-19%	14%
Curtailment Rate 2-Week Cold Spell (%)												
Poland										-1%	0%	1%
Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland										-2%	0%	2%
Curtailment Rate Peak Day (%)												
Denmark							-5%	0%	5%			
Poland							-7%	0%	7%	-20%	-7%	14%
Remaining Flexibility 2-Week Cold Spell (%)												
Denmark							56%	100%	44%	99%	100%	1%
Germany							96%	98%	2%	94%	98%	4%
Poland	52%	82%	30%	52%	83%	31%	11%	31%	20%	0%	16%	16%
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Denmark							48%	100%	52%	43%	100%	57%
Germany							91%	93%	2%	87%	90%	3%
Poland	51%	80%	29%	51%	81%	30%	10%	29%	19%	0%	15%	15%
Remaining Flexibility Peak day (%)												
Denmark	53%	100%	47%	50%	100%	50%	0%	44%	44%			
Poland	41%	68%	27%	41%	69%	28%	0%	9%	9%			
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark							36%	0%	-36%	24%	8%	-16%
Poland							7%	0%	-7%	20%	10%	-10%
Sweden							36%	32%	-4%	24%	10%	-14%
Single Largest Infrastructure Disruption (SLID)-Poland												
Denmark							5%	0%	-5%			
Poland							21%	7%	-15%	32%	20%	-12%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%)												
Poland										-9%	0%	9%
Ukraine Disruption Curtailment Rate 2-Week Cold Spell (%) --- DF												
Poland										-10%	0%	10%
Ukraine Disruption Curtailment Rate Peak Day (%)												
Denmark							-5%	0%	5%			
Poland							-14%	-2%	12%	-26%	-13%	14%
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

ADVANCED Infrastructure Level – Global Ambition

Sum of Value	Column Labels											
	2025						2030			2040		
	CBG			GBC			GA			GA		
Row Labels	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA	WITHOUT	WITH	DELTA
Competition												
Commercial Supply Access (CSA)												
Cyprus							4	5	1	4	5	1
Greece										3	4	1
Malta										4	5	1
LNG and Interconnection Capacity Diversification (LICD)												
Denmark	7,118	4,181	-2,937	7,130	4,187	-2,943	7,130	4,187	-2,943	7,130	4,187	-2,943
Poland	2,115	1,781	-335	2,115	1,781	-335	2,115	1,781	-335	2,115	1,781	-335
Sweden	7,118	4,181	-2,937	7,130	4,187	-2,943	7,130	4,187	-2,943	7,130	4,187	-2,943
MASD-RU												
Austria										20%	14%	-6%
Czech Republic										20%	14%	-6%
Denmark										20%	14%	-6%
Germany										20%	14%	-6%
Netherlands										20%	14%	-6%
Poland										20%	15%	-6%
Slovakia										20%	14%	-6%
Sweden										12%	8%	-4%
Security of Supply												
Belarus Disruption Curtailment Rate Peak Day (%)												
Denmark							-5%	0%	5%			
Poland							-1%	0%	1%	-16%	-2%	14%
Curtailment Rate Peak Day (%)												
Denmark							-5%	0%	5%			
Poland										-4%	0%	4%
Remaining Flexibility 2-Week Cold Spell (%)												
Denmark							56%	100%	44%	99%	100%	1%
Poland	87%	100%	13%	87%	100%	13%	35%	54%	19%	20%	37%	17%
Remaining Flexibility 2-Week Cold Spell (%) --- DF												
Denmark							48%	100%	52%	43%	100%	57%
Germany										96%	97%	1%
Poland	85%	100%	15%	85%	100%	15%	33%	52%	19%	18%	35%	17%
Remaining Flexibility Peak day (%)												
Denmark	53%	100%	47%	50%	100%	50%	0%	100%	100%	4%	76%	72%
Poland	73%	99%	26%	73%	99%	26%	13%	28%	15%	0%	10%	10%
Single Largest Infrastructure Disruption (SLID)-Denmark												
Denmark							36%	0%	-36%	24%	0%	-24%
Poland										4%	0%	-4%
Sweden							36%	32%	-4%	24%	2%	-22%
Single Largest Infrastructure Disruption (SLID)-Poland												
Denmark							5%	0%	-5%			
Poland										16%	4%	-12%
Ukraine Disruption Curtailment Rate Peak Day (%)												
Denmark							-5%	0%	5%			
Poland							-2%	0%	2%	-17%	-3%	14%
Market Integration												
Bi-directionality - Country												
DK <=> PL	0%	30%	30%	0%	30%	30%	0%	30%	30%	0%	30%	30%

C.3 Monetised benefits [ENTSOG]

This section includes all benefits stemming from the realisation of a project that are quantified and monetised. Some benefits are monetised ex-post while others directly as a result of the simulations and are impacted by the modelling assumptions chosen (e.g. tariffs or supply price assumptions). Monetised benefits are showed at EU level. In order to keep the results in a manageable number, those have been aggregated per Infrastructure Level and Demand Scenarios. In line with the CBA Methodology, promoters could provide additional benefits related to Sustainability or Gasification. In the tables below these benefits are displayed separately from the ones computed directly by ENTSOG and are labelled as "(Promoter)".
More information on how to read the data in this section is provided in the Introduction Document.

		EXISTING			LOW			ADVANCED		
Benefits (Meur/year)		NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION
EU Bill benefits With Tariffs	Reference Supply	125.6	195.4	143.8	102.6	173.2	146.3	84.9	138.0	114.0
	Supply Maximization	186.4	246.8	208.2	135.9	204.4	180.9	103.8	154.9	137.1
Security of Supply	Design Case	13.3	16.2	16.2	7.4	15.4	15.0	0.4	10.1	9.2
	2-weeks Cold Spell	50.7	108.2	105.8	0.0	65.5	72.2	0.0	0.0	0.0
	2-weeks Cold Spell DF	88.7	108.9	107.5	17.5	81.8	79.0	0.0	0.0	0.0
Sustainability	CO2 and Other externalities savings	6.2 / 8.3	29.2 / 34.5	12.8 / 17.7	4.8 / 6.5	23 / 27.2	10.7 / 14.8	3.3 / 4.5	15.6 / 18.4	7.5 / 9.9
	Additional benefit (Promoter)	0	0	0	0	0	0	0	0	0

Comparison between the assessed SCENARIOS

ENTSOG runs the assessment for 5-year-rounded years (2020, 2025, 2030 and 2040) and interpolates these results to compute the benefits for the 25-years economic lifetime of projects. The following tables show the benefits as computed in the specific assessment years.

Year of assessment		*2020*									*2025*								
		EXISTING			LOW			ADVANCED			EXISTING			LOW			ADVANCED		
Benefits (Meur/year)		NT	DE	GA	NT	DE	GA	NT	DE	GA	NT	DE	GA	NT	DE	GA	NT	DE	GA
EU Bill benefits With Tariffs	Reference Supply	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	114.4	114.4	114.4	127.9	127.9	127.9	123.9	123.9	123.9
	Supply Maximization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	175.0	175.0	175.0	156.8	156.8	156.8	142.1	142.1	142.1
Security of Supply	Design Case	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	34.4	6.5	0.0	0.0	0.0	0.0	0.0	0.0
	2-weeks Cold Spell	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	11.9	11.9	0.0	0.0	0.0	0.0	0.0	0.0
	2-weeks Cold Spell DF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.2	16.2	16.2	0.0	0.0	0.0	0.0	0.0	0.0
Sustainability	CO2 and Other externalities savings	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 4	0 / 4	0 / 4	0 / 3	0 / 3	0 / 3	0 / 3	0 / 3	0 / 3
	Additional benefit (Promoter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Year of assessment		*2030*									*2040*								
		EXISTING			LOW			ADVANCED			EXISTING			LOW			ADVANCED		
Benefits (Meur/year)		NT	DE	GA	NT	DE	GA	NT	DE	GA	NT	DE	GA	NT	DE	GA	NT	DE	GA
EU Bill benefits With Tariffs	Reference Supply	105.3	191.8	111.3	69.6	170.7	160.1	52.6	143.7	134.9	144.7	240.1	180.3	111.0	198.5	146.8	85.6	141.6	95.1
	Supply Maximization	165.7	246.1	184.9	93.3	194.4	182.8	72.6	149.3	142.1	205.9	284.7	240.8	156.4	235.8	192.2	113.5	168.4	133.7
Security of Supply	Design Case	8.0	18.4	18.4	0.0	18.4	18.0	0.0	7.3	5.9	17.5	101.2	18.4	11.6	27.6	18.4	0.6	41.7	67.2
	2-weeks Cold Spell	6.8	128.9	128.9	0.0	59.4	39.9	0.0	0.0	0.0	99.5	128.9	128.9	0.0	93.4	120.7	0.0	0.0	0.0
	2-weeks Cold Spell DF	55.2	128.9	128.9	0.0	66.1	48.2	0.0	0.0	0.0	128.9	128.9	128.9	27.3	118.3	125.5	0.0	0.0	0.0
Sustainability	CO2 and Other externalities savings	1 / 1	80 / 93	23 / 31	0 / 0	63 / 73	20 / 27	0 / 0	43 / 49	14 / 18	14 / 15	12 / 12	14 / 16	11 / 12	10 / 10	11 / 13	7 / 8	6 / 6	8 / 8
	Additional benefit (Promoter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C.4 Sensitivities analysis on monetised benefits [ENTSOG]

In line with ENTSOG Adapted 2nd CBA Methodology, ENTSOG has also run sensitivities on some relevant assumptions such as tariffs, commissioning year and lower supply source price differential. The results included in the tables below have to be compared with the ones included in section C.3. Further information is available in the common introduction (Pages 1-6) to all project fiches. Independently from the source of the input as described in C3 (ENTSOG or Promoter), the sensitivity analysis has been caried out by ENTSOG and according to the criteria in the approved CBA Methodology.

EXISTING Infrastructure Level

		Commissioning Year Sensitivity			*Lower Tariff Sensitivity*			*Higher Tariff Sensitivity*			*Cost of Disruption Sensitivity*		
Benefits (Meur/year)		NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION
EU Bill benefits With Tariffs	Reference Supply	125.6	195.4	143.8	205.3	275.2	223.1	15.7	54.4	29.2	125.6	195.4	143.8
	Supply Maximization	186.4	246.8	208.2	266.3	326.6	288.2	60.1	98.3	75.8	186.4	246.8	208.2
Security of Supply	Design Case	7.5	8.5	8.5	13.3	16.2	16.2	13.3	16.2	16.2	15.4	17.5	17.5
	2-weeks Cold Spell	50.7	108.2	105.8	50.7	108.2	105.8	50.7	108.2	105.8	104.6	223.6	218.5
	2-weeks Cold Spell DF	88.7	108.9	107.5	88.7	108.9	107.5	88.7	108.9	107.5	183.2	225.0	222.0
Sustainability	CO2 and Other externalities savings (MEUR)	6.2 / 8.3	29.2 / 34.5	12.8 / 17.7	7.5 / 9.8	29.2 / 34.5	13.9 / 19.1	5.3 / 6.4	21 / 23.9	4.9 / 6.5	6.2 / 8.3	29.2 / 34.5	12.8 / 17.7
	Additional benefit (Promoter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LOW Infrastructure Level

		Commissioning Year Sensitivity			*Lower Tariff Sensitivity*			*Higher Tariff Sensitivity*			*Cost of Disruption Sensitivity*		
Benefits (Meur/year)		NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION
EU Bill benefits With Tariffs	Reference Supply	102.6	173.2	146.3	179.4	253.0	226.8	10.8	32.5	11.3	102.6	173.2	146.3
	Supply Maximization	135.9	204.4	180.9	210.7	284.1	261.3	32.6	60.7	41.5	135.9	204.4	180.9
Security of Supply	Design Case	3.8	7.7	7.7	7.4	15.4	15.0	7.4	15.4	15.0	7.5	16.2	16.2
	2-weeks Cold Spell	0.0	65.5	72.2	0.0	65.5	72.2	0.0	65.5	72.2	0.0	135.4	149.2
	2-weeks Cold Spell DF	17.5	81.8	79.0	17.5	81.8	79.0	17.5	81.8	79.0	36.1	168.9	163.1
Sustainability	CO2 and Other externalities savings (MEUR)	4.8 / 6.5	23 / 27.2	10.7 / 14.8	5.9 / 7.7	23.2 / 27.2	11.1 / 15.1	0 / 0.3	19.5 / 22.4	4 / 5.7	4.8 / 6.5	23 / 27.2	10.7 / 14.8
	Additional benefit (Promoter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ADVANCED Infrastructure Level

		Commissioning Year Sensitivity			*Lower Tariff Sensitivity*			*Higher Tariff Sensitivity*			*Cost of Disruption Sensitivity*		
Benefits (Meur/year)		NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION	NATIONAL TRENDS	DISTRIBUTED ENERGY	GLOBAL AMBITION
EU Bill benefits With Tariffs	Reference Supply	84.9	138.0	114.0	164.0	156.7	194.3	8.8	20.3	7.6	84.9	138.0	114.0
	Supply Maximization	103.8	154.9	137.1	221.9	237.1	256.5	14.9	32.7	20.0	103.8	154.9	137.1
Security of Supply	Design Case	0.4	10.1	7.8	0.4	10.1	9.2	0.4	10.1	9.2	0.0	11.3	10.3
	2-weeks Cold Spell	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2-weeks Cold Spell DF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	0.0	0.0
Sustainability	CO2 and Other externalities savings (MEUR)	4.5 / 3.3	18.4 / 15.6	9.9 / 7.5	4 / 5.3	15.7 / 18.6	7.5 / 10.3	0 / 0	5.6 / 6.6	0.3 / 0.7	3.3 / 4.5	15.6 / 18.4	7.5 / 9.9
	Additional benefit (Promoter)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D. Environmental Impact [Promoter]

Any gas infrastructure has an impact on its surroundings. This impact is of particular relevance when crossing some environmentally sensitive areas. Mitigation measures are taken by the promoters to reduce this impact and comply with the EU and National regulations. The Tables have been filled in by the promoter.

TYNDP Code	Type of infrastructure	Surface of impact	Environmentally sensitive area
TRA-N-0271	Transmission infrastructure	Approx. 320 km, DN 900/1000	The project has obtained an approved environmental impact assessment (EIA). The list of environmentally sensitive areas crossed by the project is indicated in the EIA.
TRA-N-1173	Transmission infrastructure	188 km, DN 1000	The project has obtained an approved environmental impact assessment (EIA). The list of environmentally sensitive areas crossed by the project is indicated in the EIA.
TRA-F-0780	Transmission infrastructure	210 km, DN 900/1000	The project has obtained an approved environmental impact assessment (EIA). The list of environmentally sensitive areas crossed by the project is indicated in the EIA.
TRA-N-0394	Transmission infrastructure	105 km, DN 800	The project has obtained an approved environmental impact assessment (EIA). The list of environmentally sensitive areas crossed by the project is indicated in the EIA.

Potential impact	Mitigation measures	Related costs included in project CAPEX and OPEX	Additional expected costs
Due to type of infrastructure all impacts will occur at the construction stage as a result of: cutting down shrubs and trees, dewatering of trenches, emission of noise, air pollutions, sewages and wastes. Range of impacts will be limited to the construction site. At the stage of use / exploitation impact on the environment could occur only while breakdown of pipeline.	To ensure appropriate protection of environmentally sensitive areas during the construction GAZ-SYSTEM implements appropriate mitigation measures that may include (onshore part of the project): > environmental supervision during pipeline's construction. > crossing selected rivers' valleys with trenchless technologies. > technical facilities' and storages' location i.e. out of natural habitats, protected areas, wetlands, surface waters, etc. > cutting down shrubs and trees beyond breeding season. > habitats' reclamation by sowing of collected seeds after the construction. > protecting the construction site with a temporary sheet piles in places, where increased amphibians' migration may occur. > transplantation of protected plants out of construction site. Mitigation measures will also be included in the offshore part of the project: > sonar surveys on shoaling or schooling fish, > decreasing illumination and restricting the spectrum of light on ships for reducing impacts on biological resources while still maintaining safe operations. > by using tunnelling, preservation of cliffs as a natural habitat, and potential breeding sites for sand martins remain undisturbed. Concrete mitigation measures for both onshore and offshore part of the project will be determined in the decisions on environmental conditions. The project promoters will comply with environmental requirements during the construction phase.	N/A	N/A

Environmental Impact explained [Promoter]

Environmental impact assessments for the projects have not indicated any substantial and irreversible impacts on the environment. In order to ensure that environmental assessments are correct, environmental monitoring is carried out before, during and after the construction of the infrastructure.

E. Other Benefits [Promoter]

Missing benefits are all benefits of a project which may be not captured by the current application in TYNDP 2020 of the 2nd CBA Methodology.
As a necessary condition a missing benefit cannot have discrepancies with the benefits already covered by the assessment run by ENTSOG and this condition needs to be proved and justified.

Other benefits explained

GAZ-SYSTEM is currently developing Baltic Pipe and a number of other projects belonging to BEMIP region (extension of LNG terminal in Świnoujście, FSRU Polish Baltic Sea Coast, Poland-Lithuania Interconnection) and NSI EAST region (Poland-Slovakia Interconnection with North - South Gas Corridor in Eastern Poland, Poland-Czech Republic Interconnection).
Due to the strategic location of the Polish gas grid between the Baltic and CEE regions, the future implementation of these projects will create the synergy effect by interlinking both BEMIP and NSI East gas regions. Implementation of a direct gas connection with deposits on Norwegian Continental Shelf and significant LNG supply options (Świnoujście and FSRU in PL, Klaipeda in LT) and the implementation of currently developed cross-border pipeline projects connecting the Polish gas grid with Slovakia, Lithuania (PCI projects) and possibly Czechia and Ukraine, will lay the foundations for the Polish market to become a regional gas distribution centre in the medium term providing the access to reliable sources of gas (NCS, LNG, Western Europe), traded according to price formulas based on the hub rules, for the Baltic and CEE countries, as it is on the mature Western gas markets.
The creation of a regional gas hub with a high level of liquidity and security will allow to materialize the EU concept of creating a single European gas market, ensuring maximum security of supply and fostering price convergence between domestic markets, as well as will contribute to the implementation of the ACER-backed vision of the European gas market, composed of strong and liquid regional hubs.

F. Useful Links

The project website

Official project website: https://www.baltic-pipe.eu/

Energinet project website: https://en.energinet.dk/Infrastructure-Projects/Projektliste/BalticPipe

GAZ-SYSTEM project website: http://en.gaz-system.pl/nasze-inwestycje/integracja-z-europejski-systemem/baltic-pipe/

Network Development Plan

Energinet Security of Gas Supply Report 2019: https://en.energinet.dk/About-our-reports/Reports/Security-of-gas-supply-2019

GAZ-SYSTEM: https://www.gaz-system.pl/strefa-klienta/do-pobrania/plan-rozwoju/

PCI Fiche

PCI 8.3.1 (TRA-A-0780): https://ec.europa.eu/energy/maps/pci_fiches/PciFiche_8.3.1.pdf

PCI 8.3.2 (TRA-A-1173 and TRA-A-0271): https://ec.europa.eu/energy/maps/pci_fiches/PciFiche_8.3.2.pdf