

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

Project Group SGC_04 - Cyprus LNG Import Terminal (former Cyprus Gas2EU)

Reasons for grouping [ENTSO G]

The project group includes a stand-alone project consisting of a floating solution (FSRU) for LNG imports to Cyprus, including all facilities needed to receive, store and regasify liquefied natural gas.

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

The project group aims at improving Cyprus' security of energy supply and diversification of imported energy sources and fuels. It will also support objectives of sustainability, as it will contribute to the reduction of GHG emissions and prepare for a low carbon economy on the island.



Projects constituting the group

Project Cluster	TYNDP Project Code	Project Name	Promoter	Hosting Country	Project Status	4th PCI List Code	First Comm. Year	Last Comm. Year	Compared to TYNP 2018
SGC_04	LNG-A-1146	Cyprus LNG Import Terminal (Former CyprusGas2EU)	Ministry of Energy, Commerce and Industry, Republic of Cyprus (*)	CY	Advanced	7.5	2022	2022	On time

(*) During TYNDP2020 Project Data Collection Promoter of the project was the *Ministry of Energy, Commerce and Industry, Republic of Cyprus*, whereas afterwards, ETYFA has been appointed as Project Promoter

Technical Information

Project Cluster	TYNDP Project Code	Yearly Volume [bcm/y]	Storage Capacity [m3 LNG]	Ship Size [m3 LNG]
SGC_04	LNG-A-1146	approx 1	137,000	Q-flex 217,000*

*this is the maximum vessel size than can be accommodated by the LNG Import Terminal facilities

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”.

Project Cluster	TYNDP Project Code	Point Name	Operator	From System	Exit Capacity [GWh/d]	Increment Comm. Year	To System	Entry Capacity [GWh/d]	Increment Comm. Year
SGC_04	LNG-A-1146	Terminal 2 Vassilikos - Lemesos Port	Cygas (DEFA)	Cyprus	0		Transmission Cyprus	40	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 “*”.

	LNG-A-1146	Total Cost
CAPEX [min, EUR]	312*	312
OPEX [min, EUR/y]	10.52*	10.52
Range CAPEX (%)	20	20
Range OPEX (%)	20	20

Description of costs and range [Promoter]

Total CAPEX reflects all relevant project development costs which consists of construction works for the development of the facility, early land remediation works for the preparation of the work site and all relevant project management costs for the implementation period

C. Project Benefits

C.1 Summary of project benefits

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

Gasification benefits [ENTSG]

The project **increases the number of supply sources** Cyprus has access to ensuring gasification of the country and contributes to remove Cyprus from isolation.

Fuel Switch CO2 and other Gasification benefits [Promoter]

The promoter has identified multiple benefits from fuel switch, which include among others:

- Ends energy isolation
- Diversification of energy sources
- Strengthening of Security of Supply
- Competitiveness in emerging gas market
- Major Environmental positive impact

These benefits are summarised in section C.3.

C.2 Monetised benefits [Promoter]

In line with the 2nd CBA Methodology, promoters provided the benefits below per scenario.
More information on how to read the data in this section is provided in the Introduction Document.

[illegible]

Comparison between the assessed SCENARIOS

In line with the 2nd CBA Methodology, the assessment is run for 5-year-rounded years (2020, 2025, 2030 and 2040) and in-between year are interpolated 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.

[illegible][illegible]

In line with ENTSG Adapted 2nd CBA Methodology, ENTSG 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 (ENTSG or Promoter), the sensitivity analysis has been carried out by ENTSG and according to the criteria in the approved CBA Methodology.

[illegible]

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

Potential impact	Mitigation measures	Related costs included in project CAPEX and OPEX	Additional expected costs

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.

Some of the environmental impact elements the project contributes to are the following:

- Avoiding the cost of CO2 emission due to the switch in fuel mix;
- Complementarity with other infrastructure gas projects;
- Decrease of other harmful emission such as SOx and PM;
- Development of more clean and efficient transport through the deployment of bunkering services.
- CO2, SOx, and PM savings are related to the fact that NG/LNG is an environmentally friendly fuel and can significantly reduce these emissions comparing to conventional fuels.

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 ENTSG and this condition needs to be proved and justified.

Other benefits explained

The project will end Cyprus' energy isolation indefinitely, will ensure security of supply and will increase import capacity, which is likely to have a significant impact on improving investor confidence.

The project provides benefits as it promotes the establishment of the internal market for gas and enforces the overall internal energy market mix with an additional more environmentally friendly source. It also promotes the integration of the EU Natural Gas (NG) market as it will connect the newly created market of Cyprus with the established Greek market and other markets. Furthermore, the project promotes the concept of a spot LNG market within the Mediterranean Sea, thus interconnecting the respective markets of several Member States and implementing virtual reverse flow to allow export of gas.

The project may include other benefits such as it provides sustainability, competition, interoperability and system flexibility. Regarding sustainability, CyprusGas2EU contributes to EU's energy and climate goals as it facilitates the gasification of Cyprus and the reduction of oil in its energy mix and the respective dependence from oil. It will also encourage the development of an optimal fuel mix at regional level minimizing CO2 emissions and utilizing greener sources of energy.

F. Useful Links

The project website: <http://www.cyprusgas2eu.eu/>