TIME FOR LNG IN EUROPE?

A Market Outlook on Liquid Natural Gas Production in Europe

Europe is coming to terms with its dependence on Russian oil and gas. The recent announcement that the EU will stop importing Russian oil by the end of 2022 will require a systematic change within the countries concerned. However, the prospect of trying to reduce and ultimately cease importing Russian gas is a whole other issue. Countries such as Germany, are dependent on Russian pipeline gas and so to move away from such a major supplier will test the ability of the Union to stick to its principles.

For a long time, LNG been a major power source within Europe. France, Spain, Italy, and the UK have for decades imported LNG. Spain has seven import facilities, the UK and France have four while Italy has three.

It seems that there is an existential pressure on several European countries to investigate how, albeit, potentially short-term, LNG could be an alternative to Russian pipeline gas.

- **Germany** has investigated constructing LNG terminals in the past, but now has increased efforts to build two facilities located in **Brunsbuttel** and **Wilhelmshaven**. These will be the first terminals in the country. These will enable Germany to reduce reliance on Russian gas and could purchase LNG on a global scale. Construction of the Brunsbuttel facility is set to begin imminently. Germany halted the process of certifying the Nord Stream 2 gas pipeline from Russia in response to the crisis in the Ukraine and is seeking alternative gas supplies. Whilst these two projects are being fast tracked by the government, the **Stade LNG** project is also hoping to find traction. The project was cancelled last year, due to environmental pressure, but is now looking at permitting and construction. The project is aiming for 12 bcm regasification - which is around 10% of Germany's gas demand. In May 2002, Uniper announced that it will take on charter the 174,000 cbm Trangas Force and Transgas Power. The future location of these vessels is still under consideration, but could include Stade, Rostock, Hamburg, or Eemshaven in the Netherlands. The vessels are scheduled to start operations in Germany in 2023. RWE is also seeking two FSRUs (Floating Storage and Regasification Unit).
- FID for a new LNG terminal in **Greece** has been taken recently, with the construction of the **Alexandroupolis** facility to begin soon. The project will include an FSRU, connected to the Greek national gas grid. The terminal will transmit gas to Bulgaria, Romania, Serbia, and North Macedonia. There is potential for gas to be piped to Moldova and the Ukraine. The terminal is expected to be operational by the end of 2023.
- The ARGOS FSRU project in Volos, **Greece**, has been greenlighted. The vessel required will have a capacity of 150-180,000 cbm. ExxonMobil LNG and Mediterranean Gas signed a MOU in

October 2021 to access Exxon’s LNG supply chain.

— Gastrade is planning the **Thrace INGS** project that will include a FSRU, near Alexandroupolis in **Greece**. The vessel will be 170,000 cbm. The FSRU will be linked to the existing gas transmission pipeline.

— **Italy** has announced that it could add two new LNG terminals in a bid to drastically reduce its dependence on Russian pipeline gas. The Porto Empedocle in Sicily could be back on the table. There is also discussion of an additional FSRU, although the location is currently unknown.

— **Teesport** facility in the **UK**, is being upgraded pending its re-commissioning once a vessel has been found for the project. However, the UK is already awash with LNG with all available natural gas export pipelines running at full capacity to send as much Eastward to Europe as possible.

— In **Estonia**, a decade-old plan for a LNG project to be located at Paldiski. The plan is for a pier and a FSRU.

— The new Hamina LNG terminal in **Finland**, opened at the end of March 2022. The terminal is connected to the national gas grid and has open access. The project is small-scale, with 30,000 cbm storage capacity and can utilize vessels up to 25,000 cbm.

— In the **Netherlands**, Gasunie is investigating the possibility of installing a FSRU at Eemshaven Port. This would help reduce the country’s dependence on Russian pipeline gas. The company also has plans to expand its Gate operations by 5-8 bcm.

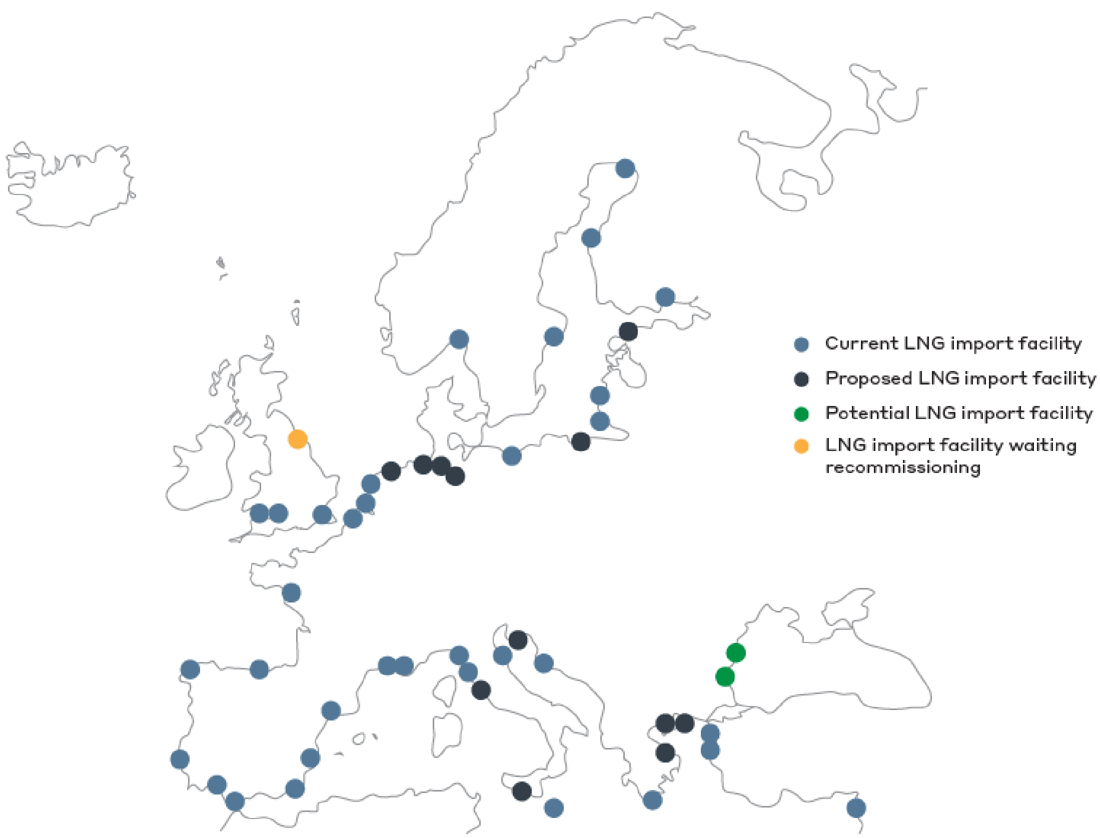
— **Slovenia** has undertaken talks with QatarEnergy for potential LNG supply. Cargoes could be sent to Krk in Croatia or Rovigo in Italy and piped to Slovenia. The longer-term plan is to build their own facility at Koper.

— **Bulgaria** has announced that when its 10-year deal with Gazprom expires at the end of 2022, it will seek alternative sources of gas. The Greece-Bulgaria interconnector will provide some of the gas. There could also be the option for a FSRU to add additional gas volumes.

— **Romania** backed out to become a partner in the Alexandroupolis LNG terminal in Greece during 2020. However, an old LNG plan that was based in Constanza could reappear due to the current events in Eastern Europe.

EUROPEAN LNG REGASIFICATION

Europe has significant regasification infrastructure – although there could be more requirements



The development of all these LNG projects will go some way to enable most European countries to secure an alternative to Russian pipelines gas. However, timing is everything and with such a rush to secure LNG volumes, port, and handling equipment, some projects may be delayed.

LNG / Natural Gas will continue to be a fundamental energy baseline for decades to come, without which the energy transition timescales needed to curb runaway climate change will be at risk. It is essential that Europe find a way to collaborate to ensure a reliable supply of LNG and Natural Gas, which WSP continues to do in close collaboration with all stakeholders in the value chain.

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