

More LNG Related Infrastructure Requires More LNG Supply

Hiroshi Hashimoto*

In parallel with the recent G7 energy minister announcement endorsing investment in the LNG sector, there were also important announcements from different stakeholders in three of the G7 member countries, which should require more LNG supply from outside of the region on the long-term basis, in the past month.

1. United Kingdom, 4 April 2023

Department for Energy Security & Net Zero of the United Kingdom released on 4 April 2023 its latest update of energy security policy "*Powering Up Britain: Energy Security Plan*"¹. While gas from the UK Continental Shelf (UKCS) and the Norwegian Continental Shelf forms the majority of Britain's gas supply, the plan says, LNG plays an increasingly important role.

The document says the government is working with industry to increase LNG import capacity and make best use of existing facilities. The operators of the Grain and South Hook LNG terminals are already investing in upgrades to their facilities to increase capacity. The upgrade at Grain LNG is already underway and will deliver an increase to the terminal's annual import capacity in 2025. South Hook LNG announced a final investment decision (FID) in November 2022 to proceed with plans to increase terminal capacity.

When they are completed, the two projects will together increase the United Kingdom's LNG import capacity to around 59 bcm (43 million tonnes). In addition, some firms are developing proposals to install floating storage and regasification units (FSRUs).

2. Germany, 31 March 2023

The German gas transmission system operators (TSOs) presented on 31 March 2023 the draft "*Gas Network Development Plan 2022-2032*"². The proposal is designed to facilitate the changes needed for the network to accommodate the new LNG supplies and allow greater use of western import routes while also reflecting reduced gas demand as well as efforts to switch to hydrogen. The proposal says that gas consumption in Germany is expected to decline by at least 20% by 2032.

However, this will not be enough to restore the supply/demand balance, and Russian

* The writer belongs to the Fossil Energy and International Cooperation Unit.

¹ <https://www.gov.uk/government/publications/powering-up-britain/powering-up-britain-energy-security-plan>

² <https://fnb-gas.de/en/news/a-milestone-on-the-way-to-the-diversification-of-import-sources-and-permanent-independence-from-russian-gas/>

pipeline gas has to be replaced primarily by LNG. The proposed projects will require some €4.4 billion of investment, €1.9 billion of which will be network expansion projects for new LNG facilities.

3. France, 4 April 2023

France's energy regulator CRE (Commission de régulation de l'énergie) published on 4 April 2023 its report on the future of gas infrastructures in the context of achieving carbon neutrality by 2050 ("*l'avenir des infrastructures gazières dans un contexte d'atteinte de la neutralité carbone d'ici 2050*"³). Adapting the gas networks in France to accommodate the production of carbon-free gases including hydrogen will require investments of €6 - 9.7 billion by 2050. The report also said maintaining most of the current gas transmission network in France will be necessary even in the event of a pronounced drop in consumption. All of the current storage facilities must be kept in their entirety for methane until 2023, the report says. Most of the network will be needed by 2050, according to the study.

The study further says that LNG terminals will remain necessary for security of supply and for European solidarity in the long term. The study says, "In all the scenarios, France will completely stop importing fossil gas by 2050 for its own needs and the terminals are only used by this horizon for transit with our neighbouring countries. The models nevertheless show that the terminals remain necessary to ensure security of supply in the medium term (until 2040 at least)." As France's neighbouring countries have their own LNG receiving terminals, France's LNG import capacity will likely continue being used for France's own sake.

Conclusion

In order to support sustainable operation of those LNG terminals in those three countries, equivalent LNG supply capacity from different sources outside of those countries will be needed on the long-term basis. Next steps for the three countries will be to secure long-term LNG supply, with their support to upstream and LNG production investment, accompanied with technological and engineering expertise to make those LNG projects cleaner. Without such support from those countries with large unfilled LNG receiving capacity, the LNG industry would see repeated imbalances of supply and demand similar to the ones it saw in 2021 and 2022.

Contact: report@tky.ieej.or.jp

³ <https://www.cre.fr/Actualites/la-cre-publie-son-rapport-sur-l-avenir-des-infrastructures-gazieres>