



## LNG in World Markets

### German FSRUs on Target for Winter Start

Two German government-backed projects in Brunsbuttel and Wilhelmshaven and a private-backed project in Lubmin are due to come online in the next few months. RWE is set to receive a cargo in Germany from ADNOC in December, with Uniper's Wilhelmshaven project likely to be up and running in January. The cost to the government for constructing floating storage and regasification unit (FSRU) terminals is said to be €3 billion over budget.

RWE chartered two FSRUs from Hoegh LNG (with one being the Hoegh Esperanza and the other understood to be the Hoegh Galleon) on behalf of the German government earlier in the year, with Uniper chartering two Dynagas vessels (Transgas Force and Transgas Power). Exceleerate will also provide a vessel to give five state-backed projects spread between the two ports, and more FSRUs will be deployed by projects at Stade and Lubmin (see Table).

Exceleerate announced in late October that it signed a five-year contract with the German government for the charter of the Excelsior vessel, which will drydock at the end of the year in preparation for redeployment.

#### THE liquidity to increase

The Hoegh Esperanza is due to be in place at Wilhelmshaven for mid-December with commercial operations beginning in January. It is reported that RWE, EnBW and Uniper will bring in contract volumes owing to the strict terms that stipulate that they must use the terminal and not leave slots vacant. However, the uncertainty of send-out times, including into the OPAL pipeline, has limited their ability to sign strip deals associated with the terminals. Volume into these projects is expected to be hedged using the THE German gas hub.

The German government is understood to be forming an entity to manage the terminals for the three utilities which could provide the market with clarity on their operation. Questions remain over whether the government would hold an open season for capacity at the terminal or if they would be solely used by the three utilities.

The government will also examine increasing the use of the domestic THE gas hub as the main risk management tool for German regasification. It is looking to inject a €5 billion line of credit into the hub to enable increased hedging and forward sales via gas storage facilities.

Germany's sixth and privately backed FSRU will be provided by TotalEnergies and is to arrive in December, meaning the three projects are expected to be ready for peak winter demand. Deutsche ReGas, the developer of the project, said in late October that it had booked 3.6 Bcm of term capacity for the next five to 10 years. While SEFE was heard not to have won an allocation (see p. 28), TotalEnergies

and potentially other European trading houses are believed to have taken capacity. On Nov. 19, Germany's Federal Network Agency (BNetzA) authorized Deutsche ReGas, with an exemption from tariff and network access regulation for 20 years.

### German FSRU Outlook

Country	Status	Project type	Site	Annual regas capacity (Bcm)	Operator	Comments
Germany	Planned	FSRU	Wilhelmshaven	7.5	Uniper	Transgas Force and Transgas Power (Dyngas) on charter to Uniper, two Hoegh vessels on charter to RWE, <i>Hoegh Esperanza</i> expected into Wilhelmshaven in mid-Dec. Operations expected Jan 2023
Germany	Planned	FSRU	Lubmin	4.5		Operations expected end 2023 - German govt
Germany	Planned	FSRU	Lubmin	4.5	TotalEnergies/Deutsche ReGas	<i>FSRU Neptune</i> in position for operations to start in Dec (TotalEnergies charter until 2029). Available annual regasification capacity for long-term bookings of 11.7 Bcm were significantly oversubscribed at 15.2 Bcm. TotalEnergies and other European trading houses believed to be capacity holders. FSU (reported to be Seapeak <i>Hispania</i> ) and three small-scale vessels confirmed
Germany	Proposed	FSRU	Rostock			Potential location under review by German govt
Germany	Planned	FSRU	Wilhelmshaven	5	E.ON/TES/Engie	E.ON, Tree Energy Solutions (TES) and Engie to deploy the <i>Excelsior</i> (Excelerate) vessel in Wilhelmshaven for 1Q 2023
Germany	Proposed	FSRU	Hamburg			Potential location under review by German govt
Germany	Planned	Onshore/FSRU	Brunsbüttel	5	Gasunie/RWE/KfW	Commissioning cargo to arrive by Dec 2022 from Adnoc. RWE, KfW and Gasunie to build terminal. <i>Hoegh Galleon</i> also on charter to RWE. Shell committed to land terminal (German LNG) with RWE, Ineos and ConocoPhillips capacity holders
Germany	Planned	Onshore/FSRU	Stade	5	HEH	Vessel expected in position by end 2023. Onshore terminal already planned (2026) with 13.3 Bcm capacity. EnBW to bring 3 Bcm/y into land terminal

With three projects set to come online over the coming months, potentially over 12 Bcm of import capacity could be added to the German market. However, the two government-backed projects have no associated contracted cargo volumes, and it is likely that the import volume will come from existing portfolio volumes as well as spot cargoes. Uniper and RWE will each take 35% of the terminals' regasification capacity while German energy firm EnBW will take the remaining 30%.

Other concerns lie with the Lubmin project due to the logistical constraints of the port. Volumes must be shuttled to the port via three smaller vessels from a floating storage unit (FSU) in the Baltic Sea to the FSRU. The FSU is believed to be the Seapeak *Hispania*. This has raised concerns over its financial viability now bearishness has crept into European prices. The site was chosen due to it being the landing site for Nord Steam 1.

The FSRU *Neptune* (on charter to TotalEnergies until 2029) arrived in German waters on Nov. 23 which could keep the project on track to start in December. However, meeting the Dec. 1 target is unlikely as permitting from the German government is reported to have delayed the start until mid to late December. Germany's pipeline operator has now completed the 450-meter pipeline to connect the FSRU to the terminal and will operate at up to 13 MMcm/d. The Lubmin port is prone to fog, which could delay winter deliveries.

While supply for the FSRUs has come into question, Germany took a step forward in late November in securing long-term cargoes. ConocoPhillips and QatarEnergy signed two SPAs for 2 MMt/y over 15 years starting in 2026 (see p. 22). ConocoPhillips, RWE and INEOS were awarded long-term capacity at the German LNG terminal being constructed at Brunsbüttel. Terminal capacity is initially 8 Bcm/y with scope to expand to 10 Bcm/y. The project will start by 2026.