

LNG World Market Analysis

For the Week Feb 27- March 4, 2023



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As expected, partial restart of Freeport LNG had no major impact on US natural gas prices all through the week. Only on Friday, front month US gas futures moved up and closed above \$3 for the first time since January on the back of cold weather forecasts and increased gas consumption by the US LNG export plants. Freeport LNG had requested for the restart of Train 1- last one left in three liquefaction train project which converts 2.1bcfd gas into LNG running at full capacity. Freeport gas consumption had reached around 1.3bcfd by the middle of last week, apparently using gas for its

liquefaction Train 3 and Train 2, cleared for operations by FERC. Freeport had received LNG tanker Cool Voyager on Thursday and JERA owned tanker Nohshu Maru on Saturday. Earlier, Nohshu Maru had left Freeport LNG on Feb 18, after loading LNG from the stored inventory.

In Europe, above average gas storage levels and reduced demand for gas, helped gas prices remain at reasonably low level, by the end of the week. Average LNG prices have gone down by around 75% since August 2022. Despite sustained fall in spot prices, European prices are more attractive by around 30cts compared to the Northeast Asian prices, making Europe a preferred destination over Northeast Asia.

Among others, South Asian buyers, continued to buy spot cargoes with buy tenders from India and Bangladesh. Apparently, Pakistan due to its financial troubles is unable to take advantage of the falling spot LNG prices. Among buyers from India, GAIL purchased three cargoes for March delivery with an average ex-ship prices of between \$13.80 to \$14.20/mBtu whereas another state-owned Gujarat State Petroleum Corp (GSPC) bought two cargoes one each for end March and April window at around \$14.25. Apparently, the private sector power major in India, Torrent Power managed to get the best deal, with April delivery cargo for \$13.50.

Bangladesh, another major spot buyer from South Asia issued two spot buy tenders, almost back-to-back, for delivery in March 30-31 and April 6-7. The state-owned Petrobangla subsidiary Rupantarita Prakritik Gas Company Ltd managed to award two earlier spot cargo buy tenders for \$19.74 and \$16.50 to TotalEnergies and JERA respectively. Taking advantage of the lowered spot prices, Bangladesh is expected to buy couple of more cargoes before June as mandated by the government.

Among other important developments during the week, Mozambique LNG is expected to resume EPC work in July- after a gap of more than two years since it declared force majeure due to incidents of violence in April 2021.

Saipem, one of the JV members of Mozambique LNG EPC contractor CCS JV, stated that the work will be resumed from July although TotalEnergies- operator of the project, said it will wait for a report from human rights expert Jean-

Christophe Rufin, appointed by TotalEnergies, before making a final decision on restart. CCS JV is a joint venture of Saipem, McDermott and Chiyoda Corporation.

From E&P sector, in another development, Golar LNG announced possible delivery and commissioning of Floating Liquefied Natural Gas (FLNG) Gimi to BP on 20-year contract, in the first half of 2023, to be located nearshore on the Mauritania and Senegal maritime border. Nearly 92% conversion of FLNG Gimi is technically completed by Golar for BP but before that BP is expected to move floating production storage and offloading (FPSO) vessel to the production site in second quarter of 2023. BP's FPSO is currently in Singapore and will be part of subsea development of gas fields and near-shore FLNG facilities, producing 2.3mil mt/year LNG in the first phase.

Hope you will enjoy reading this report. Pl email your reflections on report to editor@lngworldwide.com

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1. Freeport resumed Train 3 and 2 and loading LNG from Dock 1

Freeport LNG has possibly resumed its second train from Thursday. The second largest LNG export project of the US had received LNG tanker for loading after a gap of almost two weeks and also pulled in around 1.2bcfd of gas on Thursday.



Supporting the assumption that Freeport LNG has restarted Train 2, 158,000cbm LNG tanker Cool Voyager had arrived at the Dock 1 of the terminal, on Thursday morning around 11.30am. Freeport LNG received LNG tanker after a gap of almost 12 days since it loaded the last one- JERA owned tanker Nohshu Maru on Feb 18. Tanker Cool Voyager supplies LNG from the US liquefaction projects to FSRU based LNG receiving terminals of Germany.

Freeport LNG has three liquefaction trains and each consumes around 0.7bcfd of gas. Three train LNG liquefaction plant with capacity to convert 2.1 bcf of gas into LNG, has been closed since June 8, 2022 following explosion and fire incident.

The gas flow of over 0.9bcfd gas to the plant would mean restart of one more liquefaction train at Freeport LNG, stated Reuters report, quoting Refinitive data and traders.

Freeport LNG was granted clearance to resume operations of its Train 3 first and subsequently Train 2. Early this week, Freeport sought Federal Energy Regulatory Commission (FERC) approval to restart liquefaction Train 1.

In its filing with FERC, Freeport LNG stated “Freeport has performed a full pre-startup safety review of Train 1, identified and completed corrective work necessary to be able to safely restart the unit, and is ready to commence activities to safely restart Train 1, beginning with re-inventorying Train 1 with refrigerants.”

To reach at its full capacity of 2.1bcfd, Freeport LNG will require permission to operate its Dock 1 and Dock 2. Currently, it is granted approval only for the Dock 1 to load LNG cargoes.

2. Uniper starts regular FSRU operations at Wilhelmshaven

Uniper of Germany has announced beginning of regular operations of its floating storage regasification unit (FSRU) based LNG receiving terminal at Wilhelmshaven from March 1, 2023.



The facility, built by Uniper, started operations in December 2022. The initial phase of the operation was a trial one according to Uniper. Since the trial phase, one LNG tanker is unloaded every week, and the LNG is regasified at the FSRU 'Höegh Esperanza' and injected into the natural gas grid from there.

The company said that around 6% of Germany's gas demand can be met via the terminal, and Uniper, as its installer and operator, will continue to play a key role in ensuring that there are no gas shortages in Germany in the future, especially in the coming winter of 2023/24.

The commercial operation at the terminal started on January 15, 2023, and since then, the federal government company Deutsche Energy Terminal GmbH (DET) assumed the role of plant operator and permit holder. LNG Terminal Wilhelmshaven GmbH (LTeW) took over the task of technical and commercial management of the terminal on behalf of DET.

On 28 February 2023, Uniper announced that the final acceptance audit took place at the Wilhelmshaven LNG terminal allowing for the start of regular operations as of 1 March 2023.

The audit was made by the responsible authorities under the leadership of the Oldenburg State Trade Supervisory Office (GAA Oldenburg), and according to Uniper, the acceptance took place without any objections.

3. Mozambique LNG likely to restart EPC work from July

TotalEnergies operated Mozambique LNG project will resume operations from July this year. The liquefaction project had declared force majeure in April 2021, following violence in north of Cabo Delgado province- near the project site.



Saipam, which is a joint venture partner in CCS JV for Mozambique LNG, confirmed that the work will be resumed from July. CEO of Saipem Alessandro Puliti said during the conference call on Saipem results that it expects to gradually restart the Mozambique LNG project as per the information received by their clients. CCS JV partners includes Chioda Corporation and McDermott. CCS JV has been contracted by Total for Mozambique Area 1 for EPC of the liquefaction project on the Afungi peninsula in Cabo Delgado province, Mozambique.

Patrick Pouyanné, Chairman and CEO of TotalEnergies had visited the Cabo Delgado province of Mozambique late in January to review the security and humanitarian situation. He visited the Afungi industrial site, the resettlement village of Quitunda, the towns of Palma and Mocimboa da Praia and met with President Filipe Nyusi to discuss the security and humanitarian situation in Cabo Delgado province, where the Mozambique LNG project is located.

During this visit, Patrick Pouyanné had entrusted Jean-Christophe Rufin, a recognized expert in humanitarian action and human rights, with an independent mission to assess the humanitarian situation in Cabo Delgado province. This mission was also to evaluate the actions taken by Mozambique LNG and propose any additional actions to be implemented, if required. Mission was supposed to submit its report to the Mozambique LNG partners by the end of February and

following the submission of the report TotalEnergies was to decide on resuming project activities. Reuters quoted TotalEnergies spokesperson saying “it would wait for a human rights assessment commissioned by Rufin before announcing any restart of the project.

4. Golar LNG hopes to deliver FLNG Gimi to BP in H1 2023

Golar LNG is expected to deliver and commission Floating Liquefied Natural Gas (FLNG) Gimi to BP in the first half of 2023 to be located nearshore on the Mauritania and Senegal maritime border. Golar LNG said conversion of FLNG Gimi for its 20-year contract with BP was 92% technically complete on February 12, 2023, still on track for a H1 2023 sail away.



The BP owned floating production, storage and offloading vessel (“FPSO”) which needs to be commissioned ahead of Gimi’s commissioning is now in Singapore and is expected to arrive on site in Q2 2023. The FPSO is a key part of the major integrated GTA development that also includes subsea development of gas fields and near-shore FLNG facilities. The project’s first phase is set to produce around 2.3 million tonnes of LNG per year.

The project was scheduled for commissioning in early part of 2022 but because of Covid 19, BP had declared force majeure in February 2020.

Golar LNG owns a 70% stake (and Keppel the remaining 30%) in Gimi, which will have a capacity of 2.45 mta once commissioned. Cost of the conversion, not including financing, is projected at US\$1.3Bn.

FLNG Gimi is expected to unlock around \$3 billion of Earnings Backlog to Golar, equivalent to approximately \$151 million in annual Adjusted EBITDA.

5. Dhamra LNG to receive commissioning cargo in April

The Dhamra LNG terminal, jointly promoted by Adani Total Private Ltd is set to start commissioning work in April. Going by Reuters report, the 5mil mt/year Dhamra port will receive its first cargo in April and start its commercial operations in subsequent 30 to 45 days.



Dhamra will be working on tolling basis and expected to receive 2.2mil mt/year LNG by March 31, 2024. Dhamra LNG has 20 year regasification service contracts with the state-owned Indian Oil Corp (IOC) for 3mil mt/year LNG and with GAIL India for 1.5mil mt/year LNG. Located on the East coast of India, Dhamra is strategically important LNG terminal for India, pushing for extensive use of gas in the energy mix from current 6% to 15%. TotalEnergies has 50% stake in the Adani Total joint venture and it is expected to play a significant role in supplying LNG to the Dhamra terminal from its portfolio.

6. Venture Global reported progress on Plaquemine LNG

The logo for Venture Global LNG, featuring the text 'VENTURE GLOBAL LNG' in a sans-serif font. 'VENTURE GLOBAL' is in blue and 'LNG' is in red.

VENTURE GLOBAL LNG

Venture Global LNG announced the successful raising of the roof of the first LNG storage tank at the 20mil mt/year Plaquemines LNG export facility in Plaquemines Parish, Louisiana.

This major project milestone was completed ahead of schedule and comes nine months after the project's final investment decision (FID).

Venture Global has signed series of sales and purchase agreements (SPA) for term LNG supply from Plaquemine LNG with various buyers- the latest one being INPEX Energy Trading Singapore for 1 mil mt/year for 20 years. Apart from

INPEX, Plaquemine LNG has also signed SPA with ExxonMobil subsidiary for 1mil mt/year LNG for 20 year, with EDF for 1 mil mt/year for 20 years, also with Petronas of Malaysia for the same volume and term.

7. Bangladesh issued two buy tenders within a week

The state-owned Rupantarita Prakritik Gas Company Ltd (RPGCL) of Bangladesh has issued one more spot buy tender back-to-back within a week. RPGCL has issued latest spot buy tender for the delivery window of April 6 to April 7. The buy tender will close on Sunday March 5.



Last week, RPGCL closed a buy tender on Feb 27 for delivery for March 30-31 window. RPGCL is expected to issue three to four more buy tender depending on spot prices until July.

A subsidiary of Petrobangla, RPGCL had awarded its previous buy tender to the Japanese major JERA for \$16.50 for the Mar 10-11 delivery window. Its earlier buy tender was awarded to TotalEnergies when prices had just started sliding down. The buy tender was awarded to TotalEnergies at \$19.74. TotalEnergies recently supplied the cargo from US based Calcasieu Pass liquefaction terminal. The cargo was supplied via the tanker 155,000cbm tanker Seapeak Magellan on Feb 21 to Chittagong of Bangladesh.

At below \$15 spot prices, spot LNG has become an attractive option for the Asian buyers. Most South Asian buyers stayed away from the spot market since early part of 2022 as Europe attracted most of the spot volume offering huge premium to S&P JKM benchmark prices. Following Russia Ukraine war, Russian piped gas to Europe reduced to less than one third of its 2021 level which prompted Europe to replace Russian gas with the LNG to meet its immediate energy requirement.

8. Excelerate Energy signs 20-year SPA with Venture Global for 0.7mtpa LNG

Excelerate Energy, Inc. and Venture Global LNG executed a 20-year LNG Sales and Purchase Agreement (SPA). Under the SPA, Excelerate will purchase 0.7 mtpa of LNG on a free on board (FOB) basis from the Plaquemines LNG facility in Plaquemines Parish, Louisiana.



Last year, on 25 May 2022, the company had announced an FID for the first phase of Louisiana's Plaquemines LNG export facility. The first phase included a capacity of 13.33 mtpa. Venture Global had executed 20-year SPAs for 80 per cent of the full 20.0 MTPA project.

Plaquemines LNG phase one customers include PGNiG, Sinopec, CNOOC, Shell, and EDF; phase two with 10mtpa capacity customers announced to date include ExxonMobil, PETRONAS, and New Fortress Energy

9. Chevron Shipping to reduce carbon intensity of its LNG fleet



Chevron Shipping announced that it has entered into an agreement with Sembcorp Marine Repairs & Upgrades, a wholly owned subsidiary of Sembcorp Marine Ltd. (Sembcorp Marine), intending to reduce the carbon intensity of their LNG fleet operations.

Under the agreement, with Sembcorp Marine's support, Chevron will install new technologies aboard Chevron vessels to support their energy transition goals. The changes are also in alignment with decarbonization targets set by the International Maritime Organization (IMO).

Chevron aims to lower the carbon footprint of LNG transportation by installing new technologies such as a reliquefaction system, hull air lubrication, and a new gas compressor. Together, these changes are expected to reduce cargo boil-off, lower fuel consumption and increase volumes of cargo delivered.

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