

Venture Global stands accused of withholding LNG cargoes, prepares 'formal response'

BP is accusing Venture Global of “illegally withholding information” about delays in delivering LNG from its Calcasieu Pass export plant in Louisiana, claiming long-term LNG shipments were “intentionally held back” from contracted customers and sold through one-off deals on the spot market. Executives at Venture Global called the accusations “outrages” and vowed to file a formal response.



Calcasieu Pass LNG terminal

Operations at the Calcasieu Pass terminal began in March 2022, but no cargo has yet been shipped to BP and other offtakers that agreed to 10-year delivery deals, as Venture Global argues these contracts are not yet binding given that the liquefaction terminal is still in its commissioning phase.

In its complaint to the US Federal Energy Regulatory Commission (FERC), BP claims Venture Global

had repeatedly pushed back the date at which it would begin delivering LNG at contracted rates in an attempt to increase its own profits. “They repeatedly submitted redacted filings to FERC that obscure the status of its Calcasieu Pass facility,” BP claimed. “By doing so without sufficient justification, we believe Venture Global is withholding critical infor-

mation and is side-stepping public scrutiny of its abnormally lengthy commissioning period,” BP said, calling for more effective regulatory oversight of US LNG facilities.

Enraged, Venture Global executives vowed to file a formal re-

sponse. “The complaint that BP filed with FERC has no merit and is another attempt — after Repsol tried and failed — to use a federal energy regulator to advance its own interests in a commercial dispute,” spokeswoman Shaylyn

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Asian buyers of US LNG cargoes bypass the Panama Canal, avoid spot cargoes

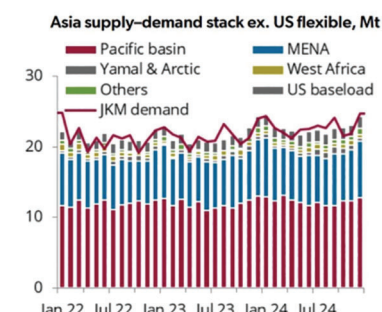
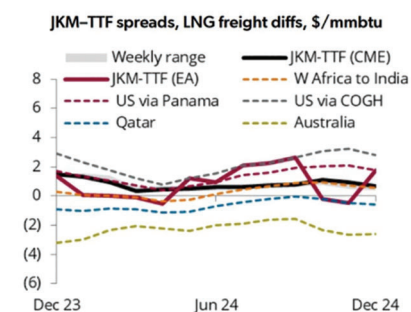
Faced with tighter restrictions to transit the drought-stricken Panama Canal, South Korean and Japanese utility buyers of US LNG have started bypassing the waterway, or avoid spot cargoes altogether. Cargoes are now shipped through the Suez Canal or around the Cape of Good Hope, while the Asian gas price premium compared to Europe for the summer-2024 contract has more than doubled.

The number of LNG carriers, allowed to transit the Panama Canal, has already been curtailed to 24 down from the typically 36 per day as draught reduced the water levels at Gatún Lake which is needed to operate the locks of the canal. In January this number will now be cut short by half, analysts understand. Turning to alternative routes increases shipping time and costs.

“The margin for US LNG to the Pacific will keep

shrinking, given the longer voyage days and higher shipping cost,” said Xi Nan, head of LNG research at Rystad Energy. “East Asia spot price will have to pro-

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Hynes told Bloomberg in an email. "BP's repeated efforts to publicise that dispute show the weakness of its contractual position."

Trustworthiness issues

In BP's view, the conduct of Venture Global and its management had "shaken confidence in the trustworthiness of LNG suppliers" at a critical time and "was harming the stability and growth" of the industry. With its administrative action, BP said it "seeks to bring Venture Global into compliance with FERC's regulations requiring Venture Global to be fully transparent and unseal its unnecessarily confidential regulatory filings."

Michael Sabel, a former investment banker, is running Venture Global together with the lawyer Robert Pender. Both claim Venture Global was still working out issues with the Calcasieu Pass plant that had not yet achieved the level of consistency necessary to say that "commercial operations" had begun.

They dismissed earlier accusations of malfeasance by BP, Shell and several other customers as "outrageous."

Further complaints

Shell and BP have entered into separate cases against Venture Global at the London Court of International Arbitration, with other

complainants including Edison and Repsol. Long-term customers of the controversial firm include many energy firms from around the world, notably seven from Europe.

First cargo from Calcasieu Pass LNG was shipped in March 2022, and the facility consists of 18 modular Trains configured in nine blocks for a total nameplate capacity of 11.26 mtpa. Three further plants are under development by Venture Global: Plaquemines LNG on the banks of the Mississippi, the CP2 project adjacent to the Calcasieu Pass facility, and Delta LNG – each of the three with a nameplate capacity of around 20 mtpa. ■

Tellurian outs Charif Souki as chairman

Driftwood LNG developer Tellurian has ousted co-founder Charif Souki as executive chairman by choosing his long-term business partner Martin Houston as the new Tellurian chairman.



Ex-Tellurian chairman Charif Souki

Souki will stay a member of the board, the company said, stressing "these changes are not the result of any material or unexpected financial events."

Souki previously headed Cheniere Energy as a founder but was ousted from Cheniere by activist shareholders in 2016 and went on to found Tellurian with Martin Houston, who had also been a former executive of BG Group prior to its takeover by Shell.

Shares in Tellurian had once traded as high as \$10.70 per share on April 3, 2019, but have steadily slumped because of delays in progressing with the Driftwood project, which has permits to produce 27 mtpa of LNG. Analysts pointed at the companies changing equity strategies which potentially made initial backers such as Shell and Vitol withdraw their interest in being among the first cargo buyers.

Despite a posting a third-quarter loss of \$12.55 million, vs a profit \$40.07 million in the same quarter of 2022, Tellurian CEO Octávio Simões stays optimistic that construction of the Driftwood plant and "remained on target" to produce first LNG in 2027. The project involves constructing 20 mid-scale processing Trains, each with 1.38 mtpa capacity and built as five blocks. Phase 1 development would include the first two of these blocks for 11 mtpa of output. ■

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vide a premium to attract US supplies to Asia instead of to Europe."

Congestion costs for an LNG cargo from Sabine Pass in the US to Futtsu in Japan soared by \$1.5 million week-on-week in December, making total spot freight \$6.2 million more expensive, according to Spark Commodities data. Such prices tend to deter many Asian utility buyers.

These days, power generators in Japan and South Korea shun LNG for power generation and rather make use of nuclear instead. Pricing of the Japan-Korea Marker (JKM), Platt's benchmark price assessment for spot physical cargoes to Asia, seems to hinge on a "small and inconsistent call on US spot cargoes at the



LNG tanker transiting the Panama Canal

margin," Energy Aspects commented. Analysts hence remains bearish against the JKM-TTF Dec-23-Mar-24 spreads, though a 0.2 million ton per month tightening in its Asian balance would create an interest for US cargoes.

Beware weather risks

But weather-risk remains, with Rystad cautioning that "the difference between a mild and a cold winter is about 10 Bcm in China." A cold wave in November prompted many Chinese municipalities, including Beijing and some in Hebei and Shaanxi, to start district heating ahead of schedule with utilities dispatching coal- and gas-fuelled cogeneration plants. A short-lived cold spell should have little impact on LNG demand, analyst reckon, consider-

ing China can draw on robust domestic gas production, the ramp-up of Russian pipeline gas deliveries and higher stock-builds estimated at 20.7 bcm.

Over in Japan, LNG demand is forecast to fall by 0.1 million tons y/y this winter amid a 1.1 GW rise in nuclear availability and stronger stock-draws. "Japan's power market is less tight than last year, with the lowest power reserve margin at 5.2 percent in areas including Tokyo and Tohoku in January 2024 under a cold-winter scenario, up from 4.1 percent last year," analysts commented.

"Unfavourable economics" also limits gas-fired generation given that JKM and oil-linked term LNG import contracts are both priced higher than the top of the fuel-switching range. ■

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Golden Pass LNG faces delay in mechanical completion, pushes back start-up date

ExxonMobil has informed investors about a delay in the “mechanical completion” of the Golden Pass LNG export plant. Commissioning of liquefaction facilities at the existing import terminal on the Sabine-Neches Waterway in Texas would hence be “slightly later than previously scheduled,” CFO Kathy Mikells said, indicating first LNG is now expected just before June 2025.

The new timeline is a delay from an earlier start-up date in late 2024. Golden Pass mechanical completion is now set for “the end of 2024,” the Exxon CFO specified, and under existing plans the second Train completion is expected to follow six-to-eight months later in 2025, and Train 3 six-to-eight months after that.

Mikells singled out the Golden Pass project as a “capital-efficient conversion of an import terminal.

The three liquefaction Trains will have around 16 mtpa of name-plate capacity and a peak capacity of around 18 mtpa gross. ExxonMobil and QatarEnergy are marketing their own volumes.

But the revised schedule may prove significant for the US Gulf Coast gas market next year as it means feedgas demand could rise at a slower rate. Analysts also presume LNG deliveries from Golden Pass would not be available early

enough to meet demand in winter 2024/25.

Adding supply globally

By 2027 alone, Mikells vowed ExxonMobil bring onstream 27 mtpa of additional LNG supplies originating in the US, Qatar, Africa and Asia.

Last year, ExxonMobil announced an agreement with QatarEnergy to participate in the North Field East project, which will increase

ExxonMobil’s participation in Qatar LNG volumes from 52 mtpa to 60 mtpa. QatarEnergy LNG will serve as the operator, with the project slated to start up in 2026.

As for the long-delayed Mozambique LNG export project in south-east Africa, the Exxon CFO said that the Mozambique Rovuma joint venture would

enter the front-end engineering phase in 2024. Moreover, the Papua New Guinea LNG expansion project in which ExxonMobil is a shareholder and current liquefaction plant operator would take a final investment decision in 2024.

Improved earnings

CEO Darren Woods has been executing an action plan over the past six years to improve the company’s earning power. “From 2019 to 2023, the first half of our plan period, we’ve roughly doubled earnings and increased cash flow from operations by about \$10 billion at \$60 real Brent and constant margins,” he said.

“And we’re far from done,” Wood vowed. “We intend to increase earnings and cash flow by a further \$14 billion over the next four years through 2027.” To that end, the CEO targets that all of Exxon’s LNG investments with new volumes coming online over the next four years should generate projected returns greater than 10 percent at prices of \$6/MMBtu or lower. ■



Golden Pass LNG export terminal in Texas

McDermott gets notice to proceed on Trinidad contract

US energy engineering company McDermott has received a limited notice to proceed for an engineering, procurement, construction and installation (EPCI) contract from Shell for the Manatee natural gas field development project offshore the East Coast of Trinidad and Tobago. Volumes are destined for LNG production and domestic gas supplies.

Subject to Shell taking a final investment decision (FID), the Manatee project scope is for the design, procurement, fabrication, transportation, installation and commissioning of a wellhead platform and offshore and onshore gas pipelines.

The field is part of the cross-border Loran-Manatee discovery shared by Trinidad and Tobago and Venezuela.

It is believed to hold around 10 trillion cubic feet of natural gas, with 7.3 Tcf on Venezuela’s side and the remaining 2.7 Tcf on Trinidad’s side. Shell’s field development plan calls for peak production of 700 million cubic feet per day.

Trinidad is the region’s largest LNG exporter from the Atlantic LNG export plant at Point Fortin, though has been

hindered in recent years by a lack of feed gas. However, exports increased last year. Exports from the Point Fortin facility rose as more gas came on stream and the shipments amounted to 7.73 million tonnes, up my 1.57 mt or 25.4 percent, from the previous year. The main importers of Trinidadian volumes include the US, Puerto Rico, Thailand, the UK, Spain and Portugal. ■



Volumes from the Manatee field will be exported via Atlantic LNG



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Rising gas production in Brazil, Argentina to reshape regional dynamics

Southern cone gas supply dynamics will be unravelled over the next ten years by rising gas production in Brazil and Argentina, while dwindling output from Bolivian fields impedes exports. Southern Cone players plan to invest \$46 billion in gas upstream through 2033, making Brazil almost self-sufficient, while Argentina could account for 72% of forecast upstream spending – despite spiralling inflation.

Already this year, Argentina's upstream investment is on track to reach a record \$11 billion. If export restrictions, capital controls, energy price controls and infrastructure bottlenecks are fully removed, S&P Global analysts believe Vaca Muerta – Argentina's largest unconventional hydrocarbon deposit – could produce an additional 40 percent in crude volumes and an additional 30 percent in natural gas volumes by 2030.

LNG and crude oil exports

could triple Argentina's local demand in less than ten years, the former energy secretary Emilio Apud reckons – and hydrocarbons together with lithium mining are meant to sweep export dollars into Argentina's ailing economy.

Rising gas production in Argentina and Brazil will reshape regional supply dynamics. "The region will evolve from the current state of Bolivia balancing Brazil and Argentina and Argentina exporting seasonally to Chile to a

state in 2033 where Argentina and Chile will be integrated, Bolivia will be producing only for its internal market and Brazil will be supplied by domestic production and by firm LNG offtake," said Eduardo Seraphim, gas research analyst for Wood Mackenzie. However, this requires Brazil and Argentina to develop domestic infrastructure which in the latter's case is hampered by macroeconomic uncertainties, he warned.

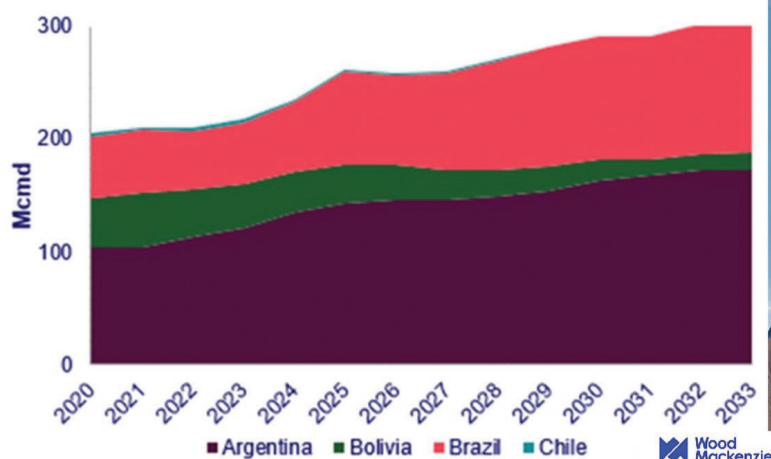
Gas-to-power demand in the

Southern Cone region is set to fall as the power sector will focus on renewables, notably solar. This will free up more natural gas from Argentina to be exported via pipeline to Chile or to be liquefied and sold as LNG to global markets.

New electricity supply is forecast to attract \$94 billion of investment through 2033, with renewables accounting for 81 percent of that Capex due to a big boost in solar PV spending. "Driven by advances in batteries and lower costs, solar will outpace wind growth rates and become the leading technology for expansion over the next 10 years in Argentina, Brazil and Chile," WoodMac reckons, forecasting: "The total solar market is set to add 48 gigawatts (GW) of utility and distributed projects, while wind will add 31 GW of onshore projects through 2033."

The consultancy's "Southern Cone Investment Horizon Outlook" finds total investment in new power supply would lead to a cumulative capacity of 400 GW by 2033.

Gas production evolution in the southern cone



CSRI to supply feedgas to Kitimat LNG facilities

Canadian Spirit Resources Inc. (CSRI), which recently reactivated natural gas production at Farrell Creek in Northeast British Columbia, is aiming for a share in supplying feed gas to regional LNG export projects – notably from the Montney Shale basin.

The company's Montney natural gas resources are focused in one core area at Farrell Creek where there are 17.0 trillion cubic feet (gross) of resources and 9.0 Tcf net. Gas produced there is meant to be supplied to approved LNG projects on the Pacific West Coast. CSRI outlined "we have direct access to the

Enbridge Westcoast Energy T-South mainline, then there is the TCPL North Montney Mainline (currently under construction) and the Coastal GasLink pipeline that will deliver natural gas to the Kitimat LNG facilities."

Though CSRI and its venture partner, Canbriam Energy opted to shut-in its Farrell Creek gas processing facility and associated Montney wells in June when low prices resulted in a negative netback, production resumed on November 17. Based on the company's net average production over 60 days prior to the suspension of its joint venture opera-

tions, a production rate of approximately 2.5 million cubic feet per day is anticipated, with CSRI's 35 percent share being approximately 0.87 MMcf per day.

TC produces more feedgas

TC Energy Corp, developer of the Coastal GasLink in British Columbia, also forecasts of a surge in feed gas for US Gulf Coast LNG. The Calgary-based company provided 30 percent of



US LNG feed gas which is set to surge to 40 billion cubic feet per day of supply for liquefaction in the years ahead.

"We are well positioned to capture the next wave of LNG exports," said CEO François Poirier.

Trafigura's traded LNG volumes drop amid 'brittle' supply chain

Global commodity trading house Trafigura has disclosed its volumes of traded LNG declined to 11.2 million tons for the year through September 2023, compared with 13 mt in the previous year, as the supply chain remained "brittle" due to changing inventories and continuing geopolitical concerns.

Traded natural gas volumes edged up to 23.9 mt versus 23.7 mt for a total of 35.1 mt in the pipeline gas and LNG sectors, down from the previous year's 36.7 mt.

Going ahead, Trafigura now seeks to build a pan European flexible portfolio with a strong focus on storage and pipeline capacity and this had paid dividends with strong results. The trading house's profits rose 5 percent to \$7.39 billion from \$7.03 billion in the previous year with strong underlying contributions recorded across all group.

US gas prices fell substantially at the start of the year and subsequently hovered around \$3/MMBtu, reflecting a mild winter, relatively robust supply and high storage levels. In Europe, in contrast, gas prices are expected to remain "unstable" until a wave of new LNG projects will come on-stream later this decade. "Until then, Europe will have to compete with Asia for LNG cargoes,"

Trafigura noted, explaining: "Our strategy will be to remain agile and respond to changing customers' needs by drawing on the size and scale of our operations and our integrated approach."

In terms of new business, "there was a ground-breaking deal to supply significant amounts of natural gas to Germany's national importer. When the agreement was signed it was worth more than

\$12 billion at market prices,"

Trafigura said. The company also entered a \$3 billion loan deal for four years and underwritten by the German federal government to help secure the LNG cargoes that were part of the agreement.

During 2023, Trafigura also expanded into markets that have previously been dependent on Russian pipeline gas, including Slovakia, Hungary, the Czech Republic and

Austria. Over in the United States, the trading house continued to focus on exports by using our pipeline transportation network to carry gas from the Permian and Eagle Ford Basins to the Gulf Coast and Mexico markets. ■



NEWS NUDGES

Kinder Morgan increases 2024 forecast

US pipeline company Kinder Morgan is expecting an increase in gross earnings, particularly from its natural gas pipelines division. "We anticipate generating net income attributable to KMI per share of \$1.21, up 11 percent, compared to our year-end 2023 forecast of \$1.09 per share," said KMI President Tom Martin. Kinder Morgan in November agreed to pay \$1.81 billion for acquiring STX Midstream whose gas pipelines connect the Eagle Ford shale basin to the Gulf Coast to serve growing feedgas demand from liquefaction terminals and facilitate onward pipeline gas exports to Mexico.

Updated spending for Cedar LNG project

Canadian midstream firm Pembina Pipeline has disclosed updated spending plans and an FID date for the planned Cedar LNG project in British Columbia. "The 2024 capital investment program of C\$880 million reflects growing volumes and Pembina's commitment to providing safe, reliable, flexible and cost-effective energy infrastructure solutions," said the Calgary-based company. Related projects could add up to C\$280 million, inclusive of pre-FID contributions with financial close now expected by the end of the first quarter 2024. ■

Oxy boosts Permian assets with \$12 billion CrownRock deal

Occidental Petroleum (OXY), with Warren Buffet as a main shareholder, has agreed to buy US Permian Basin-focused energy

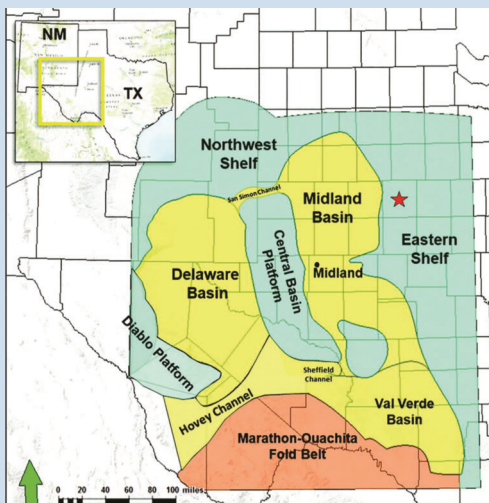
producer CrownRock in a cash and stock deal valued at \$12 billion including debt.

The transaction expands Occidental's presence in the Permian Basin where CrownRock produces oil and associated gas from nearly a thousand wells. "CrownRock's over 94,000 net acres of premium stacked pay assets and supporting infrastructure are well positioned

alongside Occidental's legacy Midland Basin business," said Oxy in announcing the deal.

Vicki Hollub, Occidental Petroleum CEO called CrownRock as "strategic fit" as it allows Oxy to build scale in the Midland Basin and drive value for shareholders with immediate free cash flow accreditation.

Other highlights of the deal are the inclusion of 1,700 undeveloped locations, including 1,250 development-ready areas at sub-\$60 West Texas Intermediate breakeven as well as 750 locations at sub-\$40 WTI breakeven, increasing Occidental's US onshore sub-\$40 breakeven inventory by 25 percent. ■



Map showing Permian's Midland Basin

Gas-burn stronger than ever in the US power sector

Natural gas covered almost half of the United States' electricity demand this summer amid significantly lower gas prices, coal plant retirements, low output from wind and hydropower and high cooling demand. According to the International Energy Agency (IEA), the steepest price drop occurred in gas producing regions – like Texas and Louisiana – accelerating the coal-to-gas switch.

In July and August, the share of the cleaner-burning fuel in the US power mix rose from 40 percent to 45 percent in July and August. In contrast, the share of coal contracted from 23 percent to 17 percent over the same period. Accordingly, the average utilisation of coal-fired generation fell from 48.5 percent to 39.8 percent in the first seven months of the year, while the capacity factor of gas-fired generation increased from 54.6 percent to 57.7 percent.

Low gas price trigger switch from coal

Prices dropped by 60 percent all through the first three quarters of 2023 at the US benchmark Henry Hub. Regional gas prices were even lower, notably in the large shale gas producing regions which also benefited from a particularly mild winter. The substantial price swing sparked a fuel switch from coal to gas. IEA analyst noted the “switching was particularly noticeable in regions with wholesale markets, where competition between resources is based on short-run marginal cost economics.”

In Midwest (MISO) and Central (SPP) regions, coal had become

more competitive in 2021 and 2022 due to a jump in gas prices. But gas became much more competitive again also in these regions this year as its price fell, analysts pointed out. In contrast, coal-burn remained dominant in the Central as the coal to fuel power stations is here predominantly procured on attractive long-term contracts, IEA figures show. Still, more efficient gas-fired units managed to displace older coal plants.

Operational challenges for ageing coal fleet

The age of assets is also decisive: “With an average age of 43 years compared to 22 years for their natural gas counterparts and almost an entire fleet of more than 30 years of age, coal plants are faced with new challenges,” analyst said, referring to their ways to operate.

For instance, in the fourth week of August - when natural gas for power reached its zenith - just some 80 GW were used for baseload compared to about 95 GW last year in the same week, IEA figures show. “With coal plants running at about 125 GW on the peak for both years, this meant that the coal capacity used for

“

With an average age of 43 years ... and almost an entire fleet of more than 30 years of age, coal plants are faced with new challenges

”

– IEA analyst

peaking went from about 30 GW to 45 GW in just a year,” analysts commented.

Operating a power plant flexibly, in load-following or cycling mode, in response to economic conditions also reduces plant efficiency. A study by the Electric Power Research Institute (EPRI) shows there is an efficiency penalty of around 40 percent (14,000 Btu/kWh v 10,000 Btu/kWh) when plants are running near minimum load condition compared to baseload operation. This adds between \$3 to \$12 per MWh to the operating cost of the unit at current coal prices.

Liberalised markets switch faster

Market type is impacting the speed of fuel switch. Evidence gathered by the IEA shows natural

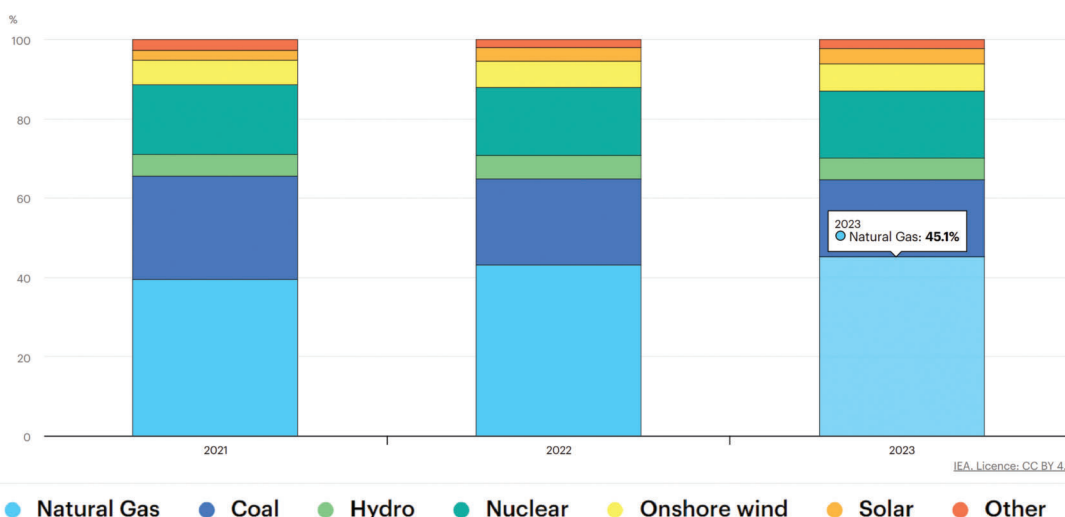
gas is replacing coal at faster rates in regions with liberalised markets than in regions with vertically integrated utilities. In fact, gas generation was up 5 percent between 2019 and 2023 in regions with vertically integrated utilities while it soared 22 percent in regions with liberalised markets.

Regulated utilities use ‘must-run designation’ to dispatch power units at rates much higher than merchant, or competitive, supplier - also at times when fuel and electricity prices suggest that running coal plants is unprofitable. Between 2017 and 2022, Potomac Economics that 24 percent of must-run starts by regulated utilities were unprofitable, compared with only 9 percent by merchant suppliers. Though this rate fell to 9 percent percent by regulated utilities in 2022, merchant plants

had no unprofitable starts that year.

Proponents say must-run designations are necessary because MISO commitment and dispatch parameters are ill-suited to the operations of coal plants, which can have high start-up and shut down costs, fixed fuel contracts (take or pay) and less flexible ramping rates. But some utilities in MISO, e.g. Xcel Energy in Minnesota, change this practise by running their two remaining coal units in a more economic, seasonal operation.

Power mix in average instantaneous power in the United States over the months of July and August, 2021-2023



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US LNG: October – November 2023

LNG Journal

- October-November exports at 16.35mmt at the time of writing
- Up by 1.25mmt (8pct) compared to August-September period
- Shipments up 3.28mmt (25pct) over period year-on-year
- Avg. US capacity utilisation at 104pct for the reporting period

Overall US LNG exports increased significantly by 1.25mmt (8pct) to 16.35mmt during the report period of October-November from the 15.10mmt shipped during the previous two-month period of August-September. Exports thus also came in 3.28mmt (25pct) above their year-on-year equivalent of 13.07mmt. As a result, US LNG capacity produced almost flat out during the reporting period, with overall annualised capacity utilisation at 104pct. This represented an increase of 8pp over the 96pct we calculated for the previous reporting period. Annualised capacity utilisation was also up 21pp from the 83pct during the equivalent period of October-November in 2022.

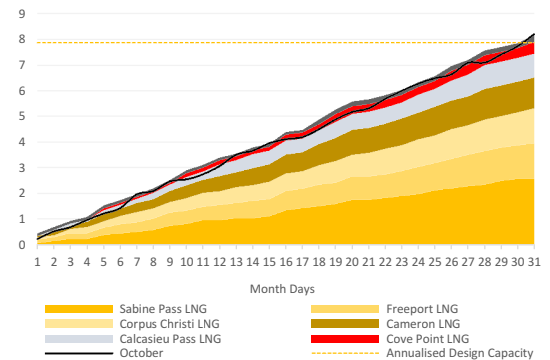
US LNG exports in October reached 8.20mmt but decreased slightly to 8.15mmt in November. A prominent factor in that reduction was a month-on-month export decrease of 0.21mmt at Freeport LNG as well as an export reduction of 0.14mmt by Sabine Pass LNG. Nevertheless, November's month-on-month reduction notwithstanding, the month's export level was still considerably higher than its 2022 equivalent of 6.51mmt due to the ramp up of output at Freeport LNG and Calcasieu Pass LNG as well as a month-on-month export increase of 0.16mmt

at Cove Point LNG. Freeport LNG had been offline between early August 2022 and mid-February 2023 due to a fire incident and subsequent repairs.

European LNG demand continued to cruise on a high level during the current report period. European offtakes during the October-November period accounted for 11.23mmt (57pct) of total US LNG exports whilst in August-September that figure stood at 8.45mmt (56pct). Data by GIE shows EU inventories had an average fill level of 88pct at the time of writing, with major gas consumers such as Germany and reporting gas storage to be 90.36pct and 94.65pct full, respectively. Other EU member states reported fill levels in the 80pct range with only Belgium and Croatia showing levels below 80pct. Among other major European gas consumers, the United Kingdom showed an inventory level of 79.57pct.

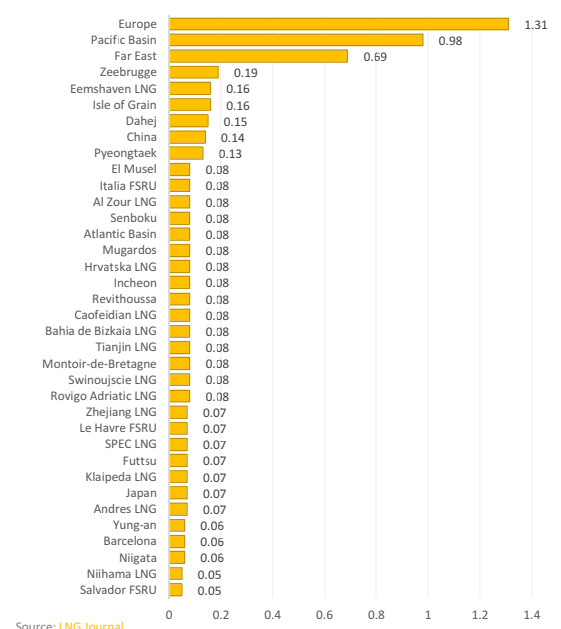
Full European gas stocks were instrumental in pushing down gas prices in Europe, with the TTF futures for February 2024 at EUR34.325/MWh at the time of writing. The Henry Hub price stood at \$2.71/mmBtu in November whilst the spot TTF price reached the approximate equivalent of US\$9.92/mmBtu on 19 December.

Cumulative US LNG Exports (MMt)

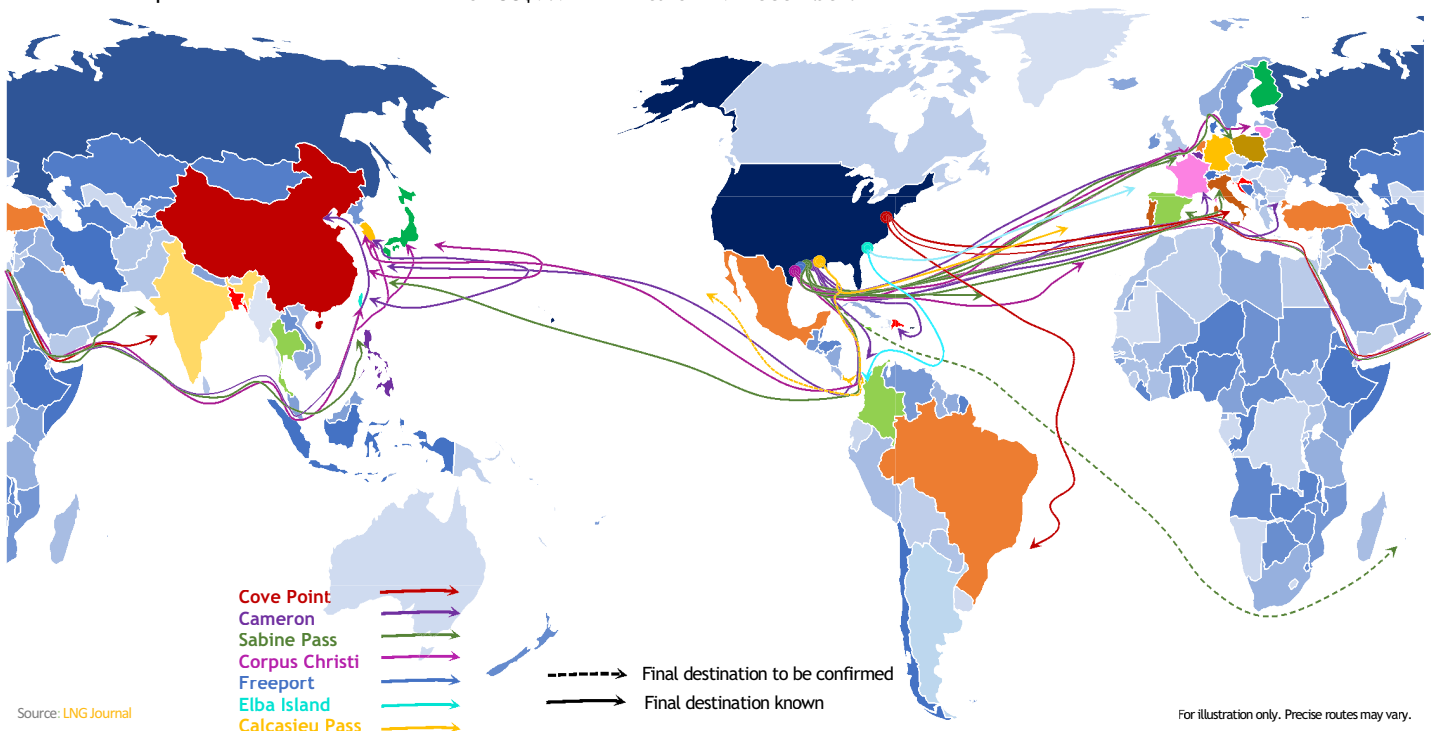


Source: LNG Journal

In-transit LNG w/ Closest Known Destinations (MMt)



Source: LNG Journal



Source: LNG Journal

For illustration only. Precise routes may vary.

US LNG Still in Transit as of 19 December 2023

Plant	Vessel	IMO	Terminal	Schedule	Total
Cameron LNG	Marvel Crane	9770438	Ogishima	22-Dec-23	0.06
Cameron LNG	Sevilla Knutsen	9414632	Ennore LNG	24-Dec-23	0.08
Corpus Christi LNG	Bushu Maru	9796793	Caofeidian LNG	07-Jan-24	0.07
Corpus Christi LNG	BW Pavilion Aranthera	9850678	Swinoujście LNG	22-Dec-23	0.08
Corpus Christi LNG	Asklipios	9884021	Far East	06-Jan-24	0.08
Corpus Christi LNG	LNG Lagos II	9692014	Incheon	27-Dec-23	0.08
Corpus Christi LNG	BW Cassia	9896933	Iskenderun FSRU	21-Dec-23	0.08
Cove Point LNG	Golar Snow	9635315	South Hook LNG	16-Dec-23	0.07
Cove Point LNG	Gui Ying	9878888	Japan	31-Dec-23	0.08
Freeport LNG	Celsius Copenhagen	9864784	Incheon	04-Jan-24	0.08
Freeport LNG	Maran Gas Andros	9810379	Futtsu	25-Dec-23	0.08
Freeport LNG	Prism Agility	9810549	Boryeong	29-Dec-23	0.08
Freeport LNG	Prism Brilliance	9810551	Samcheok	18-Dec-23	0.08
Freeport LNG	LNG Enterprise	9874480	China	19-Dec-23	0.08
Freeport LNG	Kool Orca	9870525	Pacific Basin	31-Dec-23	0.08
Freeport LNG	Grace Freesia	9903920	Senboku	05-Jan-24	0.08
Sabine Pass LNG	BW Lilac	9758076	Iskenderun FSRU	21-Dec-23	0.08
Sabine Pass LNG	GasLog Sydney	9626273	Map Ta Phut LNG	01-Jan-24	0.07
Sabine Pass LNG	Golar Maria	9320374	Pacific Basin	01-Jan-24	0.06
Sabine Pass LNG	Maran Gas Agamemnon	9682590	Far East	20-Dec-23	0.08
Sabine Pass LNG	SM Eagle	9761827	Incheon	27-Dec-23	0.08
Sabine Pass LNG	Flex Vigilant	9862475	Far East	22-Dec-23	0.08
Calcasieu Pass LNG	LNG Endeavour	9893606	Japan	27-Dec-23	0.08
Calcasieu Pass LNG	Minerva Amorgos	9885855	Niihama LNG	06-Jan-24	0.08
Cameron LNG	Marvel Crane	9770438	Ogishima	22-Dec-23	0.06
Cameron LNG	Sevilla Knutsen	9414632	Ennore LNG	24-Dec-23	0.08

*Values are based on journey time to date in accordance with draught at departure and in-transit BOR. Eventual journey times will thus affect the final amounts delivered.

Source: LNG Journal

Monthly US LNG Exports (MMt)

Period between 1 October 2023 and 30 November 2023, inclusively

LNG Journal

Elba Island LNG

Elba Island LNG produced at annualised nameplate capacity of 96pct and exported a total of six cargoes amounting to 0.40mmt during the report period of October and November. This constituted steady exports and annualised capacity utilisation compared to the previous period of August-September. Notably, the share of the plant's October-November shipments that went to Europe stood at 0.32mmt, equating to 80pct of total LNG shipped. Only one cargo went elsewhere, namely SPEC LNG in Colombia. There was no LNG cargo loading underway at Elba Island at the time of writing.

Calcasieu Pass LNG

Calcasieu Pass LNG significantly increased its period-on-period exports. The plant shipped 1.80mmt during the reporting period, up 0.48mmt (36pct) from 1.32mmt during the October-November period. Annualised capacity utilisation thus also moved up by 26pp from 70pct in August-September to 96pct in October-November. Almost 91pct of Calcasieu Pass shipments sailed for Europe during the reporting period with most of that share arriving in France and Netherlands. At the time of writing, the Maran Gas Amorgos was loading a cargo at the plant.

Cameron LNG

Exports from Cameron LNG saw a period-on-period decrease. The plant shipped 2.34mmt in October-November, down 0.06mmt (-3pct) from the 2.40mmt recorded during the previous period of August-September. Cameron LNG thereby operated at an annualised capacity utilisation of 94pct for the report period. This was down 2pp from 96pct in August-September. At the time of writing, the Maran Gas Apollonia was loading a cargo at the plant.

Cove Point LNG

Cove Point LNG decreased exports period-on-period, with shipments down by 0.12mmt (-14pct) to 0.74mmt in October-November from 0.86mmt during the previous period of August-September. In October-November, the plant thus no longer saw output close to annualised nameplate capacity but instead at 84pct, which was down 12pp from 98pct during the previous period. At the time of writing, the Energy Liberty was loading a cargo at the plant.

Freeport LNG

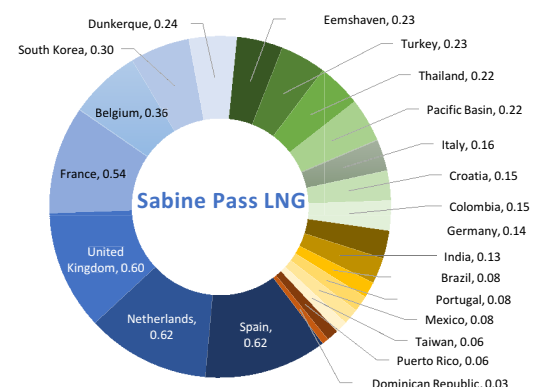
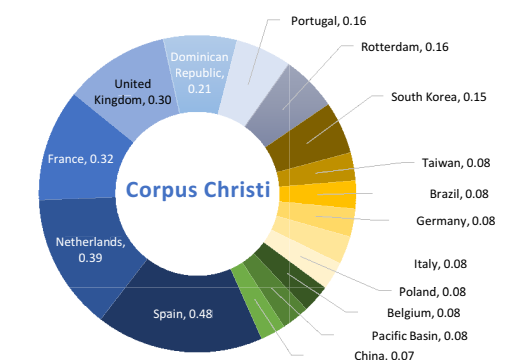
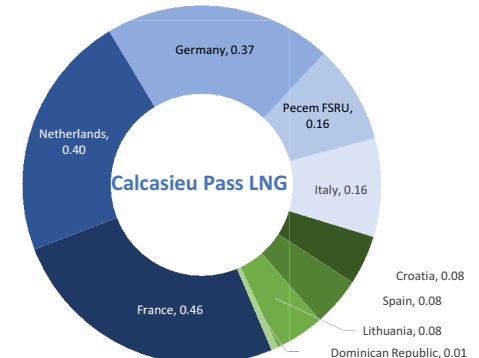
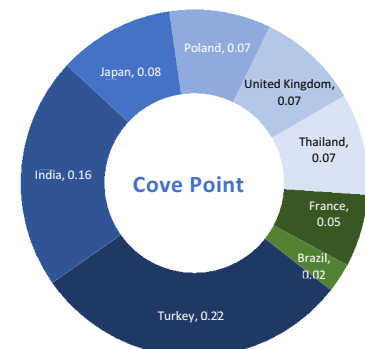
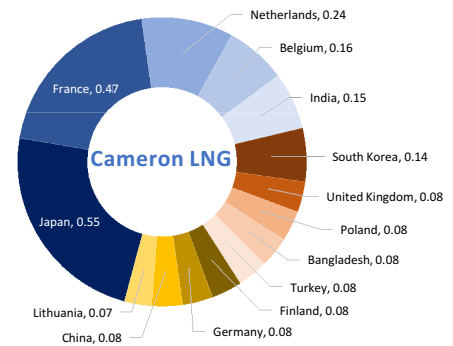
Freeport LNG significantly increased its market presence during the reporting period by 0.54mmt (22pct) with exports amounting to 2.97mmt, pegging annualised capacity utilisation for the October-November period at 115pct. Freeport LNG has been continuously ramping up LNG production and exports since it has resumed exports in mid-February 2023. The plant exported 0.29mmt in January-February but subsequently ramped up output quickly. At the time of writing, the Diamond Gas Victoria was loading a cargo at the plant.

Corpus Christi LNG

Corpus Christi LNG saw production rise again in October-November after a period-on-period decrease to 2.52mmt in August-September. In October-November, exports were up by 0.28mmt (11pct) to 2.80mmt in October-November from 2.52mmt in August-September. The plant's October-November shipments of 2.80mmt pegged reporting period capacity utilisation at 112pct, up 6pp from the previous period. At the time of writing, the Wudang was approaching the plant to load a cargo.

Sabine Pass LNG

Sabine Pass LNG's exports stood at 5.30mmt for the current report period, pegging capacity utilisation at 106pct, up 3pp period-on-period. The shipped volumes during October-November had thus increased by 0.13mmt (3pct) from the 5.17mmt exported during August and September. Sabine Pass LNG's exports continued to be underpinned by shipments to Europe, followed by flows to the Far East. The plant was loading LNG onto the Ribera del Duero Knutsen and the La Mancha Knutsen with the Bonito and the Maran Gas Sparta also approaching at the time of writing.



US LNG Exports (MMt) - Reporting Period

LNG Journal

Importers	2022														Total
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Netherlands	0.91	0.45	0.77	0.75	0.95	1.35	1.27	1.48	0.98	1.15	1.13	0.91	1.02	0.78	13.90
France	0.93	1.09	0.92	0.60	0.97	0.67	1.23	1.08	0.99	0.48	0.69	0.68	1.15	1.31	12.79
United Kingdom	0.95	1.69	1.61	1.46	1.50	1.41	1.64	0.54	—	—	0.08	0.15	0.61	0.99	12.63
Spain	0.64	0.52	0.71	0.33	0.62	0.92	0.30	0.29	0.31	0.77	0.42	0.24	1.08	0.30	7.45
Japan	0.21	0.50	0.53	0.37	0.29	0.46	0.30	0.66	0.59	0.95	0.67	0.70	0.43	0.65	7.31
South Korea	0.71	0.32	0.52	0.50	0.52	0.30	0.55	0.26	0.29	0.45	0.67	0.52	0.59	0.48	6.68
Italy	—	0.08	0.16	0.16	0.36	0.39	0.38	0.41	0.31	0.32	0.47	0.48	0.16	0.40	4.08
Turkey	0.23	0.67	0.45	0.86	0.35	0.23	0.30	—	—	—	0.04	0.12	0.14	0.69	4.08
China	0.47	0.39	0.20	0.38	0.04	0.08	0.07	0.12	0.44	0.78	0.32	0.24	0.23	0.23	3.99
Germany	—	—	0.16	0.28	0.13	0.37	0.52	0.28	0.33	0.39	0.47	0.36	0.37	0.30	3.96
India	0.15	0.22	0.30	0.15	0.28	0.22	0.31	0.17	0.32	0.47	0.37	0.55	0.28	0.16	3.95
Poland	0.23	0.07	0.27	0.24	0.14	0.16	0.16	0.39	0.40	0.08	0.24	0.23	0.32	0.23	3.16
Taiwan	0.17	0.07	0.19	0.08	0.10	0.22	0.19	0.23	0.14	0.29	0.29	0.26	0.14	0.07	2.44
Portugal	0.15	0.08	0.20	0.14	0.13	0.16	0.13	0.24	0.08	0.23	0.16	0.13	0.16	0.08	2.07
Belgium	0.16	—	0.08	0.08	0.24	0.21	0.05	0.08	0.16	—	0.08	0.19	0.54	0.14	2.01
Dominican Republic	—	—	0.07	0.03	0.08	0.03	0.14	0.24	0.15	0.17	0.23	0.15	0.15	0.18	1.62
Croatia	0.06	0.12	0.13	0.08	0.12	0.07	0.08	0.02	—	0.21	0.08	0.23	—	0.23	1.43
Lithuania	0.15	0.08	0.05	0.15	—	0.07	0.07	0.15	—	0.15	0.15	0.22	0.15	—	1.39
Thailand	—	—	—	0.08	0.02	0.08	0.08	—	0.08	0.15	0.31	—	0.22	0.07	1.09
Argentina	—	—	—	—	0.02	0.02	0.21	0.32	0.26	0.11	—	—	—	—	0.94
Greece	0.08	0.08	0.08	0.03	0.12	0.04	0.09	0.16	0.08	—	0.10	0.08	—	—	0.94
Brazil	0.08	—	—	—	—	0.05	0.06	0.05	0.30	—	0.07	0.12	0.10	0.08	0.91
Kuwait	0.07	—	—	—	—	—	0.08	0.08	0.22	0.15	0.07	0.16	—	—	0.83
Finland	—	—	0.02	—	—	0.14	—	0.15	0.05	0.07	0.16	0.16	—	0.08	0.83
Chile	—	—	—	0.07	—	0.11	—	0.15	0.12	0.21	—	0.08	—	—	0.74
Panama	—	0.08	0.08	0.09	—	0.06	—	0.08	—	0.08	—	0.08	—	0.07	0.62
Singapore	0.14	—	—	—	—	—	—	—	0.22	—	0.07	0.19	—	—	0.62
Colombia	—	—	—	—	—	—	—	0.10	—	—	0.07	0.15	0.16	0.09	0.57
Bangladesh	—	—	—	0.07	—	—	—	0.08	0.08	—	0.15	—	—	0.08	0.46
Pacific Basin - TBC	—	—	—	—	—	—	—	—	—	—	0.08	—	—	0.38	0.46
Mexico	—	—	0.02	0.07	—	—	—	—	—	—	—	—	0.08	—	0.17
Philippines	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.08	0.14
Jamaica	—	—	—	—	—	—	—	—	—	0.04	—	0.08	—	—	0.12
Indonesia	0.07	—	—	—	—	—	—	—	—	0.04	—	—	—	—	0.11
Jordan	—	—	—	—	—	—	—	—	—	0.08	—	—	—	—	0.08
United States	—	—	0.08	—	—	—	—	—	—	—	—	—	—	—	0.08
Malta	—	—	—	0.06	—	—	—	—	—	—	—	—	—	—	0.06
Puerto Rico	—	—	—	—	—	—	—	—	—	—	—	—	0.06	—	0.06
OPT LNG Hub	—	—	—	—	—	—	—	—	—	0.04	—	—	—	—	0.04
Europe - TBC	—	—	0.00	—	—	—	—	—	—	—	—	—	—	—	0.00
Grand Total	6.56	6.51	7.60	7.11	6.98	7.82	8.21	7.81	6.90	7.86	7.64	7.46	8.20	8.15	104.81



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A handwritten signature in black ink, likely belonging to Jill Evanko.

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