

Argus LNG Daily

Daily LNG prices, news and analysis

Issue 21-4 | Thursday 7 January 2021

SUMMARY

Asia Pacific: Prompt prices hit record high

Spot prices for prompt LNG deliveries to northeast Asia rose further and reached a record high, reflecting increasing urgency amongst northeast Asian consumers to secure deliveries in first-half February

Atlantic: AWAF February prices rise

The Argus West African Fob (AWAF) prices for February rose further on Thursday, even as Indian delivered prices for later in the month slid

Europe: Prices reverse losses

Prices for LNG delivered to northwest European terminals rose on Thursday, tracking the Dutch TTF gas hub higher and reversing some of the losses posted earlier in the week

Asian LNG prices at record high on 'perfect storm'

Strong consumer demand, lower-than-expected temperatures across northeast Asia and a severe shortage of prompt LNG supplies and spot tanker availability have combined to send northeast Asian spot LNG prices to an all-time high

Japan's power prices hit record highs on LNG shortage

A severe shortage of LNG supplies among Japanese power utilities on the back of an unseasonably cold winter has driven the country's wholesale electricity prices to a record high

ExxonMobil offers 2H January cargo from Gorgon

ExxonMobil is offering one cargo for 21-28 January delivery from the 15.6mn t/yr Gorgon LNG facility in Western Australia

India's Petronet seeks second-half January cargo

India's state-controlled Petronet has issued a tender to buy one LNG cargo for delivery in second-half January

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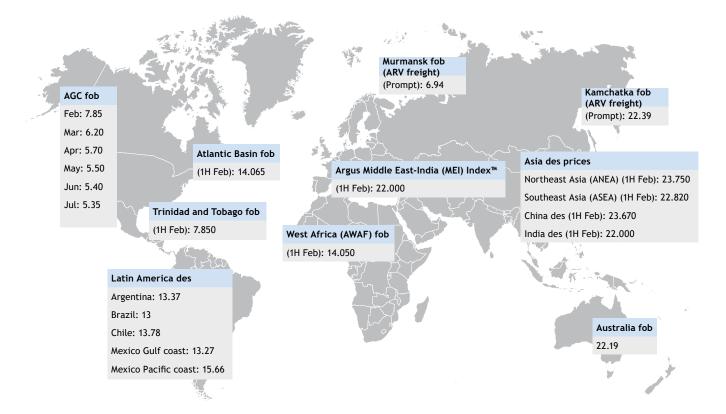
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FEATURED LNG PRICES

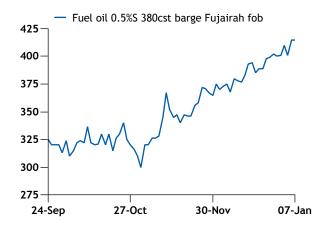
Global Front-Month and Inde	ex Prices			
Delivery Point	Midpoint	Change	Trend	Month Index
Argus Gulf Coast fob	7.850	-0.150	•	7.963
Trinidad & Tobago fob	7.850	-0.150	•	7.386
Argus West Africa fob	11.863	+0.238	•	8.414
Mexico des (Pacific) (prompt)	15.660	+1.180	•	na
Mexico des (Gulf) (prompt)	13.270	+0.590	•	na
Brazil des (prompt)	13.000	+0.580	•	na
Argentina des (prompt)	13.370	+0.580	•	na
Chile des (prompt)	13.780	+0.590		na
Murmansk fob (prompt) (ARV freight)	6.940	+0.640	•	na
NW Europe fob (reload)	11.588	-0.437	•	8.699
NW Europe des	7.425	+0.650	•	6.771
Iberia fob (reload)	12.888	+0.488		9.066
Iberia des	7.525	+0.650	•	6.873
Italy des	7.425	+0.650	•	6.773
Greece des	7.575	+0.650	•	6.923
Turkey des	7.625	+0.650	•	6.973
Middle east fob (Asia-Pacific bound) (prompt)	21.640	+2.080	•	na
Middle East fob (Europe bound) (prompt)	5.970	+0.640	•	na
Middle east des	18.833	+1.130	•	12.467
India des	18.833	+1.130		12.467
ASEA des	20.935	+1.700	•	13.587
ANEA des	20.558	+1.665		13.572
China des	20.743	+1.700	•	13.615
Kamchatka fob (prompt) (ARV freight)	22.390	+2.120	•	na
Australia fob (prompt)	22.190	+2.110	•	na

Argus prompt LNG freight day rates			\$/day
	Price	±	Month index
Steam turbine - west of Suez	113,000	nc	111,500
Steam turbine - east of Suez	97,000	nc	96,500
TFDE - west of Suez	160,000	nc	158,500
TFDE - east of Suez	143,000	nc	142,500
Two-stroke - west of Suez	176,000	nc	174,500
Two-stroke - east of Suez	160,000	nc	159,500

Argus Round Voyage Rates			\$/day
	Price	+/-	Month index
ARV1: Australia-Northeast Asia	154,958	nc	154,458
ARV2: USGC-Northwest Europe	169,306	nc	167,769
ARV3: USGC-Northeast Asia	180,911	+1,393	176,838



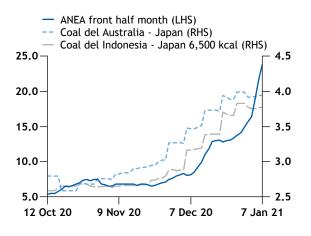
Middle East bunker fuel - Fujairah



Japan: Coal vs LNG

\$/mn Btu

\$/t



Japan oil-linked des LNG (06 Jan 2021)		\$/mn Btu
Contract	Price	±
Feb	6.91	nc
Mar	7.06	nc
Apr	7.25	+0.010
Мау	7.48	+0.030
Jun	7.76	+0.050
Jul	8.04	+0.050
2Q21	7.49	+0.030
3Q21	8.21	+0.060
4Q21	8.26	+0.060
1Q22	8.14	+0.030
2022	8.01	+0.010
2023	7.79	-0.040

Japan-oil linked

Mar

\$/mn Btu 7.06

Benchmark price snapshot		\$/mn Btu
Market	Delivery	Price
NBP	Feb	7.89
Zeebrugge	Feb	7.06
Peg Nord	Feb	7.07
PSV	Feb	7.06
PVB	Feb	11.68
TTF	Feb	6.97
Nymex Henry Hub (6 Jan)	Feb	2.72
Argus JCC Index (Fixed) (\$/bl)	Oct	44.5366
Argus JCC Index (Preliminary) (\$/bl)	Nov	42.2810

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MARKET COMMENTARY

Asia Pacific: Prompt prices hit record high

Spot prices for prompt LNG deliveries to northeast Asia rose further and reached a record high, reflecting increasing urgency amongst northeast Asian consumers to secure deliveries in first-half February.

Sellers continued to raise offers Thursday for first-half February deliveries as several consumers scrambled to secure cargoes amid a tight supply pool.

Selling indications were above a deal that Japan's Jera closed Wednesday for either a second-half January or firsthalf February at around \$24/mn Btu, market participants said. Indicative offers for first-half February were up by \$1.98/mn Btu and mostly ranged \$24-25.20/mn Btu, while bids were up by a similar margin to \$22.60-24.80/mn Btu. *Argus* is no longer assessing prices for second-half January cargoes, but market participants are pegging prices for the delivery window flat against first-half February amid supply tightness for both delivery periods.

The front half-month ANEA price, the *Argus* assessment for spot deliveries to northeast Asia, was assessed at \$23.75/ mn Btu for first-half February, up by \$1.965/mn Btu from Wednesday's all time high of \$21.785/mn Btu.

There is scope for further upside for prompt deliveries with temperatures expected to remain very low across northeast Asia. Colder than expected weather has resulted in a drawdown of LNG stock levels, particularly in Japan, where power prices have surged to record highs on strong heating demand.

Selling indications for first-half February have risen by \$7/ mn Btu since the start of the week and more than tripled since 1 December.

Supplies for first-half February are very limited, with just a few cargoes currently being offered by a European trading firm and Qatar, market participants said. Congestion along the Panama Canal has delayed deliveries and limited shipments from the US, most of which are due to arrive in northeast Asia only from second-half February onwards.

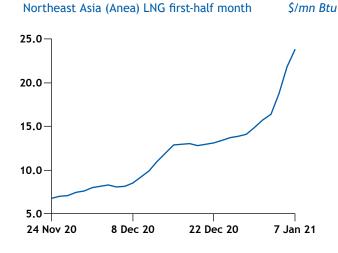
Around 10 consumers across Japan, South Korea and China are seeking first-half February cargoes on the back of an unseasonably cold winter.

Several Japanese power utilities are grappling with very low LNG tank levels and are seeking prompt deliveries urgently even as they have been forced to lower operating rates at some of their gas-fired power plants to avoid any unscheduled shutdowns due to inadequate LNG supplies.

South Korean buyers Kogas and Prism Energy, as well as several second-tier Chinese consumers, are also seeking first-half February deliveries amid lower-than-expected temperatures in the respective countries.

Argus Asia-Pacific des	\$/	mn Btu			
	Delivery	Bid	Offer	Midpoint	±
Northeast Asia (ANEA™)	1H Feb	23.56	23.94	23.750	+1.965
	2H Feb	16.78	17.95	17.365	+1.365
	1H Mar	12.29	13.71	13.000	+0.155
	2H Mar	8.85	10.15	9.500	-0.205
China	1H Feb	23.47	23.87	23.670	+1.920
	2H Feb	17.28	18.35	17.815	+1.480
	1H Mar	12.13	13.37	12.750	+0.020
	2H Mar	8.97	10.03	9.500	-0.240
India	1H Feb	21.27	22.73	22.000	+2.425
	2H Feb	14.83	16.50	15.665	-0.165
	1H Mar	10.42	11.92	11.170	-0.680
	2H Mar	7.25	8.75	8.000	-0.860

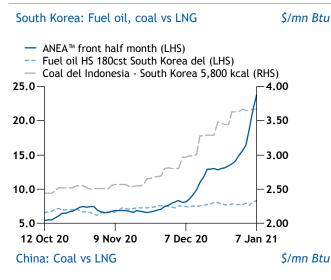
ANEA forward curve		\$/mn Btu
Contract	Price	±
Feb	20.558	+1.665
Mar	11.250	-0.025
Apr	7.350	0.000
May	6.750	0.000
Jun	6.500	+0.025
Jul	6.575	+0.125
Aug	6.550	+0.025
2Q21	6.867	+0.009
3Q21	6.600	+0.025
4Q21	7.300	+0.050
1Q22	7.800	+0.025

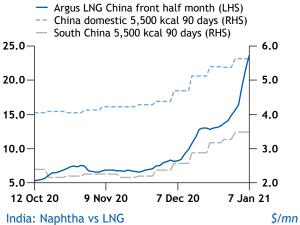


Several consumers are also looking to buy cargoes for deliveries in second-half February and first-half March but are in no rush to buy. They expect increasing supplies from the Atlantic and Pacific to exert downward pressure on prices. Indicative bids for second-half February were at \$16.50-17.50/mn Btu, versus selling indications at \$17.20-18.50/mn Btu. Bids and offers averaged \$12.29/mn Btu and \$13.71/mn Btu, respectively, for first-half March.

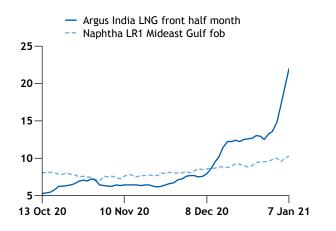
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ASIA-PACIFIC COMPETING FUELS









LNG vs conventional marine fuel	\$/mn Btu
weekly avg., week ending 01 Jan	
LNG des southeast Asia (ASEA) half-month net calorific value- adjusted	15.596
Singapore 0.5%S fuel oil delivered	10.240
Singapore 0.1%S MGO delivered	10.675
Singapore 3.5%S fuel oil delivered	8.283

OTHER ASIA-PACIFIC PRICES

Argus Midd	le East des sp	ot LNG			\$/mn Btu
Delivery		Bid	Offer	Midpoint	±
1H Feb		21.27	22.73	22.000	+2.425
2H Feb		14.83	16.50	15.665	-0.165
1H Mar		10.42	11.92	11.170	-0.680
2H Mar		7.25	8.75	8.000	-0.860
Argus Midd	le East-India	(MEI) Ind	ex		\$/mn Btu
Delivery		Bid	Offer	Mid	±
1H Feb		21.27	22.73	22.000	+2.425
2H Feb		14.83	16.50	15.665	-0.165
1H Mar		10.42	11.92	11.170	-0.680
2H Mar		7.25	8.75	8.000	-0.860
Key netfor	wards and net	tbacks			\$/mn Btu
			Delivery	Price	±
Southeast As	ia (ASEA)		1H Feb	22.82	+2.12
			2H Feb	19.05	+1.28
			1H Mar	14.99	+0.70
			2H Mar	10.92	-0.16
Middle East f	ob (Asia-Pacific	bound)	Prompt	21.64	+2.08
Middle East f	ob (Europe-bour	nd)	Prompt	5.97	+0.64
Kamchatka fo	b (ARV freight)		Prompt	22.39	+2.12
Australia Gla	dstone fob		Prompt	22.28	+1.91
(Unit: A\$/GJ)	1		Prompt	27.30	+2.59
Australia Gla	dstone oil index	ed fob	Prompt	6.05	nc
(Unit A\$/GJ)			Prompt	7.41	+0.08
Australia fob			Prompt	22.19	+2.11
Snapshot o	f oil-linked LM	IG prices	6 Jan 202	1)	\$/mn Btu
Mar	10рс	11рс	12рс	13рс	14рс
601	4.43	4.88	5.32	5.76	6.20
301	4.52	4.97	5.43	5.88	6.33
311	4.25	4.68	5.10	5.53	5.95
101	5.01	5.52	6.02	6.52	7.02

Contracts defined as: Oil-linked LNG on six-month crude average (601) contract; Oil-linked LNG three-month crude average (301) contract; Oil-linked LNG three-month crude average plus one month lag (311) contract; Oil-linked LNG one-month crude average (101) contract. For more oil-linked LNG forward curve prices, please see the appendix at the back of the LNG Daily report.

AUSTRALIAN GAS PRICES

Argus Wallumbilla Index (AWX) - Thursday 31 Dec 2020					
Delivery	Units	Bid	Offer	Midpoint	±
Feb	A\$/GJ	6.60	7.55	7.070	-0.220
Feb	\$/mn Btu	5.38	6.16	5.769	-0.073
Argus Victoria Index (AVX) - Thursday 31 Dec 2020					
Delivery	Units	Bid	Offer	Midpoint	±
Feb	A\$/GJ	5.98	6.82	6.395	-0.020
Feb	\$/mn Btu	4.88	5.56	5,218	+0.078

The AWX and AVX indexes, the first month-ahead indexes for Australia's east coast Wallumbilla and Victorian natural gas markets, are assessed each Friday and reproduced through the week. The date shown is the date of the assessment. The indexes will also appear in the east coast Australian gas markets page each Friday.



MARKET COMMENTARY

Atlantic: AWAF February prices rise

The *Argus* West African Fob (AWAF) prices for February rose further on Thursday, even as Indian delivered prices for later in the month slid.

AWAF prices for loadings in February and the first half of March have mostly tracked Indian delivered prices in recent weeks, as Indian demand for LNG has buoyed the differential between Indian and European delivered prices — historically west African fob sellers' two primary markets — wide enough to account for the greater shipping costs, which were around 55¢/mn Btu on Thursday.

But Indian delivered prices for late February and early March have tightened their respective differentials to corresponding northeast Asian prices in recent days. These differentials were lower on Thursday than the \$1.56/mn Btu of additional freight costs for delivery from west Africa to northeast Asia, compared with south Asia, having held broadly at parity on Wednesday.

This meant that even as Indian delivered prices for late February-early March slid, rises in corresponding northeast Asian prices offered support for AWAF prices, with northeast Asian buyers likely able to bid higher than their south Asian competitors for unsecured west African February cargoes.

High delivered LNG prices may have led Indian buyers to seek alternative energy sources, with the country having its own domestic gas supply, in contrast with northeast Asian countries such as Japan, South Korea and Taiwan. Coal burn also retains a high percentage of total power generation in the south Asian country, compared with these three northeast Asian markets, reducing its dependency on LNG imports to meet power demand. By contrast, Japanese power producers are facing low LNG inventories and limited alternative forms of power generation, leading them to be more willing increase bids to draw LNG cargoes away from other markets.

Gas-fired power generation in India's power sector over the first few days of 2021 has averaged 4.27GW, compared with 4.50GW over 1-31 January 2020, while coal-fired output has risen to 118GW from 114GW over the same period. And gas burn appeared to slow already in the second half of December, averaging 4.34GW compared with 5.12GW in the first half of the month, while coal-fired output rose to 118GW from 111GW. December's average gas-fired output was 4.72GW, down from 4.77GW a year earlier, compared with coal-fired generation at 118GW, up from 108GW.

Indian buyers are also facing less demand from other buyers in south Asia and the Middle East in particular, which is typically a summer-peaking market, reducing the need to compete with firms from these regions.

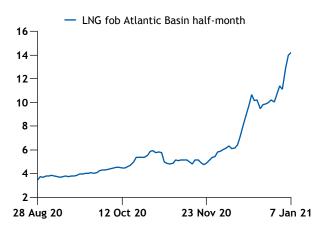
Argus Gulf Coast (AGC)	fob LNG	\$/mn Btu
	Price	±
Feb	7.85	-0.15
Mar	6.20	+0.60
Apr	5.70	+0.45
May	5.50	+0.45
Jun	5.40	+0.45
Jul	5.35	+0.40

Argus Atlantic Basin fob	spot LNG	i		\$/	mn Btu
	Loading	Bid	Offer	Midpoint	±
Murmansk fob (ARV freight)	prompt			6.940	na
Iberian peninsula reload	1H Feb	13.55	15.05	14.300	-0.100
	2H Feb	11.10	11.85	11.475	+1.075
	1H Mar	7.50	8.25	7.875	+0.300
Northwest European reload	1H Feb	13.05	14.65	13.850	-0.150
	2H Feb	8.60	10.05	9.325	-0.725
	1H Mar	6.85	7.50	7.175	+0.125
West Africa (AWAF™)	1H Feb	13.45	14.65	14.050	+0.450
	2H Feb	8.95	10.40	9.675	+0.025
	1H Mar	5.55	6.85	6.200	-0.450
Trinidad and Tobago	1H Feb	7.65	8.05	7.850	-0.150
	2H Feb	7.65	8.05	7.850	-0.150
	1H Mar	6.00	6.40	6.200	+0.600

Argus Atlantic Basir	n fob spot LN	G index		\$/	mn Btu
	Loading	Bid	Offer	Midpoint	±
Atlantic Basin	1H Feb	13.35	14.78	14.065	+0.065
	2H Feb	9.55	10.77	10.160	+0.130
	1H Mar	6.63	7.53	7.080	-0.010

Atlantic Basin fob

\$/mn Btu



Kuwait – the largest LNG importer in the Middle East through much of 2020 – does not currently have any import capacity, with its 170,000m³ *Golar Igloo* floating storage and regasification unit (FSRU) departing the country's Mina al-Ahmadi terminal at the start of January. The vessel was declaring for Dubai on Thursday. State-owned buyer KPC has a tender open until 14 January for a delivery to the import terminal in late February, which will the FSRU's first receipt of 2021. The terminal typically remains idled during peak winter months.





US GULF COAST INDICATIVE FOB PRICE

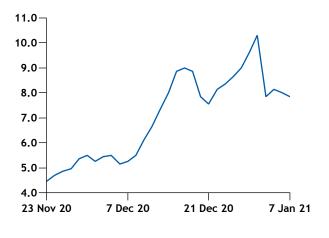
Indicative USGC fob LNG (06 Jan 2021)		\$/mn Btu
Contract	Price	±
Feb	6.12	+0.02
Mar	6.08	+0.01
Apr	6.09	+0.01
2Q21	6.12	nc
3Q21	6.26	nc
4Q21	6.38	+0.01
1Q22	6.48	+0.01
Summer 2021	6.19	nc
Winter 2021-22	6.43	+0.01
Summer 2022	5.86	+0.01
Winter 2022-23	6.07	+0.01
2022	6.05	+0.01
2023	5.87	+0.02
2024	5.91	+0.03

The US Gulf Coast indicative fob price is a derived price series based on the price of Henry Hub gas futures. A subset of these prices is published in the print edition of Argus LNG Daily. The full series is available electronically.

Argus LNG Daily also includes assessments of US Gulf Coast fob LNG prices (see page 1). For more information, please see the Argus LNG Daily methodology: http://www.argusmedia.com/methodology-and-reference/

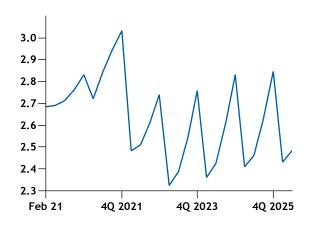
USGC fob LNG Curve

\$/mn Btu



US Nymex gas

\$/mn Btu

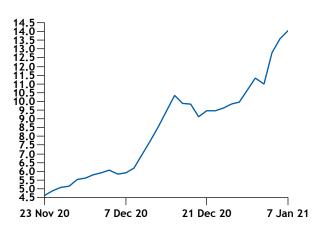


OTHER ATLANTIC PRICES

NBP - AGC fob LNG Spread	\$/mn Btu
Feb 21	0.04
Mar 21	1.05
Apr 21	0.81
May 21	0.40
Jun 21	0.33
Jul 21	0.25

West Africa (AWAF) LNG fob

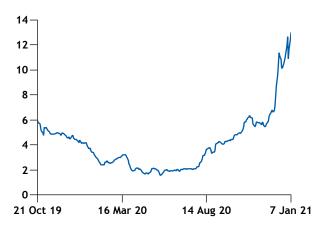
\$/mn Btu



Argus Latin America	des spot LNG		\$/mn Btu
	Delivery	Price	±
Argentina	Prompt	13.37	+0.58
Brazil	Prompt	13.00	+0.58
Chile	Prompt	13.78	+0.59
Mexico Gulf coast	Prompt	13.27	+0.59
Mexico Pacific coast	Prompt	15.66	+1.18

Argus Brazil des

\$/mn Btu





MARKET COMMENTARY

Europe: Prices reverse losses

Prices for LNG delivered to northwest European terminals rose on Thursday, tracking the Dutch TTF gas hub higher and reversing some of the losses posted earlier in the week.

The northwest European delivered price for the first half of February rose to \$7.45/mn Btu on Thursday from \$6.80/ mn Btu on Wednesday, matching similar gains posted by the corresponding TTF February contract.

Near-curve contracts at the TTF were likely supported on Thursday by rises in ARA coal swaps and emissions prices, which increased costs for coal-fired generation in northwest Europe. Recent gas price rallies have pulled the TTF's first quarter 2021 contracts into the region's fuel-switching range, with the substantial gains posted going unmatched by coal prices, having held well below this range through much of 2020.

And downward revisions in forecasts for overnight temperatures in mid-January on Thursday also suggested that there may be scope for quicker than previously anticipated heating demand from northwest Europe's city gas sectors in recent days. Minimum temperatures in Amsterdam for the third week of January were forecast on Thursday to hold broadly in line with seasonal averages, having been expected to hold 1-2°C above earlier this week. Quick heating demand later this month could draw down the region's gas storage inventories down further ahead of February-March.

The UK remained the market that could provide the greatest returns for February, even as the NBP-TTF frontmonth basis market tightened to $85 \notin$ /mn Btu on Thursday from $89 \notin$ /mn Btu a day earlier. And with northwest European delivered prices remaining $40-45 \notin$ /mn Btu above the TTF February contract, there remained a slim margin for buyers to take receipt of cargoes at the UK's three import terminals and sell onto the NBP February market, at least for firms that can consider regasification costs as sunk. That said, bids and offers for European February deliveries have remained too far apart to result in deals in recent weeks, with north-east Asian prices appearing to remain at a wide enough premium to European price to pull Atlantic volumes loading in February into the Pacific basin.

But a steep backwardation in the northeast Asian des price curve over February-March suggests that European buyers could be more competitive for Atlantic volumes loading in March. The northwest European des price for the first half of March remained at a 20¢/mn Btu premium to the TTF March contract on Thursday, which would be too high for most firms to import LNG to sell on the Dutch hub. But the NBP-TTF March basis market was at 48¢/mn Btu – well above this premium.

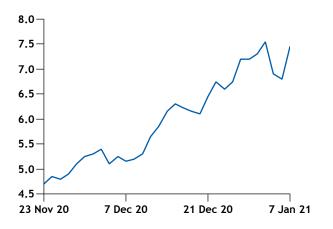
UK GAS AND EUROPEAN LNG PRICES

Argus European de	es spot LNG			\$/	mn Btu
	Delivery	Bid	Offer	Midpoint	±
NW Europe	1H Feb	7.00	7.90	7.450	+0.650
	2H Feb	6.95	7.85	7.400	+0.650
	1H Mar	6.55	7.35	6.950	+0.600
Iberian peninsula	1H Feb	7.10	8.00	7.550	+0.650
	2H Feb	7.05	7.95	7.500	+0.650
	1H Mar	6.65	7.45	7.050	+0.600
Italy	1H Feb	7.00	7.90	7.450	+0.650
	2H Feb	6.95	7.85	7.400	+0.650
	1H Mar	6.55	7.35	6.950	+0.600
Greece	1H Feb	7.15	8.05	7.600	+0.650
	2H Feb	7.10	8.00	7.550	+0.650
	1H Mar	6.70	7.50	7.100	+0.600
Turkey	1H Feb	7.20	8.10	7.650	+0.650
	2H Feb	7.15	8.05	7.600	+0.650
	1H Mar	6.75	7.55	7.150	+0.600

NBP				\$/mn Btu
Delivery	Bid	Offer	Midpoint	±
Feb	7.88	7.89	7.89	+0.643
Mar	7.25	7.26	7.25	+0.492
Apr	6.50	6.51	6.50	+0.356
May	5.88	5.91	5.90	+0.272
Jun	5.71	5.74	5.72	+0.280
Jul	5.59	5.62	5.60	+0.265
2Q21	6.03	6.06	6.04	+0.302
3Q21	5.69	5.72	5.71	+0.264
4Q21	6.71	6.74	6.72	+0.261
1Q22	7.17	7.20	7.19	+0.259
2022	5.94	5.97	5.96	+0.126
2023	5.55	5.57	5.56	+0.063

Argus NW Europe LNG des

\$/mn Btu



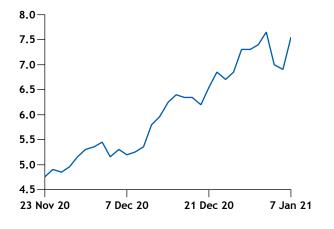


LNG SPREADS AND OIL-LINKED SNAPSHOT

European hub	s to LNG pric	e spreads								\$/mn Btu
	Northe	ast Asia	Ch	ina	In	dia	Middl	e East	Middle East-	India (MEI)
	1H Feb	Feb avg	1H Feb	Feb avg	1H Feb	Feb avg	1H Feb	Feb avg	1H Feb	Feb avg
NBP	15.87	12.67	15.79	12.86	14.12	10.95	14.12	10.95	14.12	10.95
TTF	16.78	13.59	16.70	13.78	15.03	11.87	15.03	11.87	15.03	11.87

Argus Iberian peninsula des

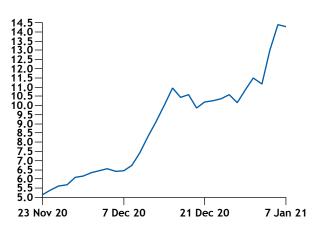
\$/mn Btu



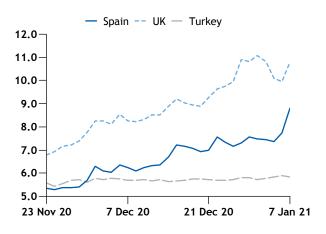
Iberia peninsula reload fob

\$/mn Btu

\$/mn Btu

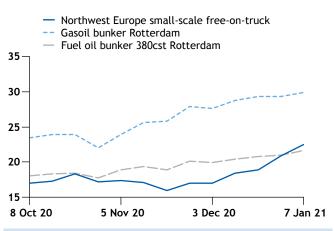


Europe: Front month base load break even



SMALL-SCALE LNG

Small-scale LNG assessmer	nts (7 Ja	an 2021)		
	€/MWh	+/- 31 Dec	\$/t MGOe	+/- 31 Dec
Northwest Europe free on truck front month	22.450	na	325.95	na
Southwest France free on truck front month	23.700	na	344.11	na
Northwest Europe LNG bunker delivered on board	28.475	+1.475	413.43	+23.61
Competing fuels snapshot	(7 Jan 2	2021)		
Gas	€/МИ	/h ± 31 Dec	\$/t MGOe	± 31 Dec
TTF	19.40	00 na	a 281.190	na
Zeebrugge	19.68	88 na	a 285.844	na
Oil products	€/MW	/h ± 31 Dec	: \$/t	± 31 Dec
Gasoil bunker Rotterdam promp	ot 29.89	94 +0.775	5 434.000	+11.000
Gasoil diesel 10ppm German NWE barge prompt	30.0	15 +1.051	435.750	+15.000
Fuel oil bunker 380cst Rotter- dam prompt	21.60	00 +0.290	310.500	+4.000
Small Scale LNG vs. Gas	oil and	fuel oil		€/MWh



ANNOUNCEMENT

All data change announcements can be viewed online at www.argusmedia.com/announcements.

Alternatively, to be added to the email distribution list for all announcements, please email:

datahelp@argusmedia.com.



LNG OPEN BIDS, OFFERS AND RECENT DEALS

Global Ope	en Bids			
Submission date	Validity date	Bid	Period	Note
29-Jan-21	12-Feb-21	2 cargo(es) des to Pakistan LNG	delivery 05-20 Apr 2021	Delivery windows 5-6 and 19-20 April; 3.6t Btu and 140,000m ³ each
15-Jan-21	29-Jan-21	3 cargo(es) des to Pakistan LNG	delivery 09-23 Mar 2021	
5-Jan-21	unknown	1 cargo(es) des to RPGCL	delivery 16-18 Feb 2021	For delivery to the 138,000m ³ Excellence FSRU
23-Dec-20	unknown	1 cargo(es) des India to GSPC	delivery 29-31 Jan 2021	Delivery to Dahej; fixed price basis [not awarded]
22-Dec-20	unknown	1 cargo(es) des to GSPC	delivery 28-31 Jan 2021	Delivery to Dahej; sought offers linked to a spot LNG price [did not award]
22-Dec-20	22-Dec-20	1 cargo(es) des India to GSPC	delivery 01 Feb 2020 - 05 Feb 2021	Delivery to Mundra; sought offers linked to a spot LNG price [did not award]
22-Dec-20	22-Dec-20	1 cargo(es) des to RPGCL	delivery 25-27 Jan 2021	
21-Dec-20	21-Dec-20	4 cargo(es) des to Botas	delivery 05-22 Mar 2021	
15-Dec-20	unknown	1 cargo(es) des India to Indian Oil Corp	delivery 08 Feb 2021	Did not award

Global Ope	en Offers			
Submission date	Validity date	Offer	Period	Note
6-Jan-21	unknown	7 cargo(es) fob Australia from Darwin LNG	delivery 26 Feb 2021 - 22 Aug 2021	For loading on 26-28 Feb, 24-26 Mar, 20-22 Apr, 25-27 May, 27-29 Jun, 19-21 Jul, 20-22 Aug; linked to Brent or a spot LNG price
30-Dec-20	30-Dec-20	1 cargo(es) des from Novatek	delivery 01-16 Mar 2021	For delivery in first half of March to Europe
29-Dec-20	unknown	1 cargo(es) fob USA from Pertamina	loading 22 Feb 2021	Loadings from Corpus Christi [did not award]
23-Dec-20	24-Dec-20	1 cargo(es) fob Russia from Sakhalin Energy	loading 20 Feb 2021	Either fob or des basis; 3.3t Btu; from Sakhalin LNG facility at Prigorodnoye
17-Dec-20	17-Dec-20	4 cargo(es) des from Novatek	delivery 01 Jul 2021 - 30 Sep 2021	For delivery to northwest Europe or northeast Asia
15-Dec-20	16-Dec-20	1 cargo(es) des from Angola LNG	delivery 09-31 Jan 2021	

Global Recent Deals

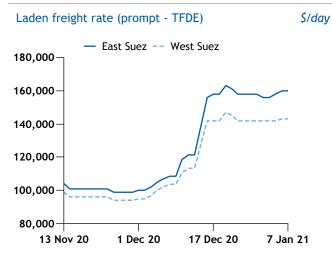
Global Re	cent Deals			
Date	Transaction	Period	Price	Note
5-Jan-21	Gunvor sold to Trafigura 1 cargo(es) des South Korea	delivery 04-08 Feb 2021	\$20.80/mnBtu	3.2t Btu
4-Jan-21	Indian Oil Corp bought from Unknown 1 cargo(es) des India	delivery 21 Feb 2021	\$13.70-13.95/ mnBtu	Paid a high \$13/mn Btu
29-Dec-20	Trafigura bought from Socar 1 cargo(es) des	delivery 10-14 Feb 2021		Done at a \$1.07/mn Btu premium to a spot LNG price for February, 3.3t Btu
28-Dec-20	Vitol sold to Trafigura 1 cargo(es) des South Korea	delivery 26 Feb 2021 - 02 Mar 2021		Done at an 80c/mn Btu discount to a spot LNG price for February, 3.5t Btu
24-Dec-20	Petronas sold to Jera 1 cargo(es) des Japan	delivery 26-30 Jan 2021	\$13.70-14.00/ mnBtu	From Gladstone LNG; sold at high-\$13s/mn Btu to \$14/mn Btu
23-Dec-20	GSPC bought from Unknown 1 cargo(es) des India	delivery 01-05 Feb 2021	\$10.50/mnBtu	Delivery to Mundra; fixed price basis
22-Dec-20	Vitol sold to Trafigura 1 cargo(es) des Japan	delivery 31 Jan 2021 - 04 Feb 2021	\$13.54/mnBtu	
21-Dec-20	Angola LNG sold to Jovo 1 cargo(es) fob Angola	loading 22-27 Jan 2021		Postponed from original loading window of 19-24 Jan and closing date of 17 Dec
16-Dec-20	Petronas sold to Unknown 1 cargo(es) des	delivery 10-13 Jan 2021	\$12.80-12.95/ mnBtu	From Gladstone LNG; 3.2t Btu; Seri Camar vessel



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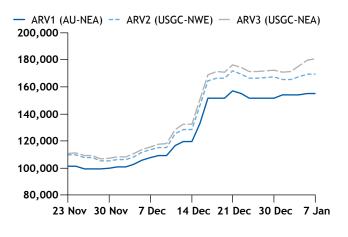


FREIGHT RATES



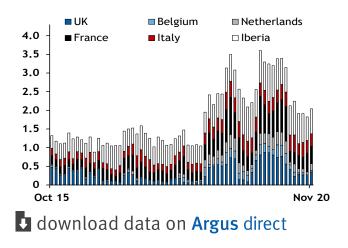
Argus Round Voyage rates

\$/day



Western European LNG sendout

TWh/d

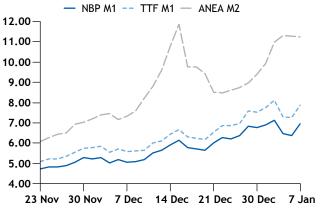


Argus ballast leg TFDE rates (31 Dec 2	020)	
	%	+/-(24 Dec)
Day rate - west of Suez	105	nc
Day rate - east of Suez	100	nc
Fuel cost - west of Suez	40	nc
Fuel cost - east of Suez	40	nc

Argus TFDE la	den day-rate for	ward curve (31 Dec)				
	Wes	st of Suez	East of Suez				
Month	\$/day	+/-(24 Dec)	\$/day	+/-(24 Dec)			
Feb	155,000	nc	145,000	nc			
Mar	81,500	nc	76,000	nc			
Apr	37,500	-1,500	34,500	-1,500			
May	37,000	-1,500	34,000	-1,500			
Jun	38,500	-1,000	35,500	-1,000			
Jul	41,000	nc	38,000	nc			
Aug	48,000	nc	45,000	nc			
Sep	57,000	nc	54,000	nc			
Oct	69,000	nc	65,000	nc			
Nov	77,000	nc	72,500	nc			
Dec	69,500	nc	66,500	nc			
Jan	56,500	nc	52,500	nc			

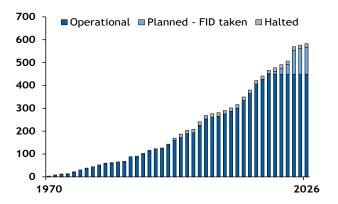
European gas hubs vs ANEA

\$/mn Btu



Global liquefaction capacity

mn t/yr





FREIGHT COSTS AND NETBACKS

Standard round-t	trip freight	costs*													\$/m	n Btu
	route via	Ain Sukhna and Aqaba	Aliaga	Altamira	Dahej and Qasim	Escobar	Incheon	Jebel Ali and Mina al-Ahmadi	Manzanillo	Map ta Phut	Milford Haven	Pecem	Quintero	Shenzen and Taipei	Singapore	Tokyo
Angola	- Suez Panama	1.97	1.54	1.86	1.96	1.23	3.54	2.11	2.96 2.28	2.28	1.33	0.94	1.86	4.21	2.07	3.67
Bintulu and Tangguh	- Suez Panama	1.91	1.79	3.69 3.42	1.18	2.65	0.84	1.46	2.44	0.46	2.43	2.64	2.88	0.59	0.33	0.97
Bonny	- Suez Panama	1.82	1.44	1.75	2.11	1.29	3.72	2.28	3.01 2.18	2.43	1.18	0.88	1.86	2.64	2.28	3.81
Bontang	- Suez Panama	2.07	1.98	3.84 3.38	1.42	2.65	0.97	1.67	2.40	0.70	2.56	2.74	2.67	0.68	0.54	0.97
Dampier	- Suez Panama	1.73	1.98	3.21 3.42	1.18	2.45	1.34	1.38	2.55	0.91	2.56	2.49	2.57	1.09	0.70	1.34
Gladstone	- Suez Panama	2.36	2.48	2.65	1.73	2.24	1.47	1.94	1.97	1.44	3.07	2.84	2.00	1.34	1.24	1.38
Rotterdam	- Suez Panama	1.30	0.94	1.44	1.97	1.85	4.18	2.07	3.65 2.08	2.86		1.19	2.53 2.33	3.91	2.60	4.31
Papua New Guinea	- Suez Panama	2.36	2.48	2.65 2.96	1.63	2.45	1.34	1.94	1.97	1.20	3.07	2.84	2.00	1.09	1.24	1.22
Ras Laffan and UAE	- Suez	0.72	1.19	2.97	0.34	2.65	2.13	0.17	3.57	1.57	1.78	2.50	3.13	1.84	1.32	2.26
Sakhalin	- Suez Panama	2.96	2.48	4.60 2.72	2.07	3.07	0.59	2.35	1.71	1.20	3.12	3.50	2.57	0.80	1.20	0.55
Singapore	- Suez	1.71	1.70	3.52	1.07	2.62	0.97	1.30	2.62	0.42	2.28	2.64	2.88	0.68		1.09
Sagunto	- Suez Panama	0.89	0.47	1.50	1.55	1.65	3.65	1.61	3.45 2.08	2.40	0.53	1.03	2.33 2.29	3.33	2.18	3.78
Trinidad and Tobago	- Suez Panama	1.76	1.44	0.63	2.40	1.21	4.89 3.78	2.45	2.89	3.09	1.08	0.53	1.84 1.22	4.58 3.91	2.89	5.03 3.47
USGC	- Suez	2.02	1.75	0.19	2.65	1.71	4.99	2.75	0.90	3.58	1.33	1.04	2.34	5.03	3.38	5.07
*Standard freight cos	Panama ts include full	charter cos	ts and fu	iel for th	e return	leg of a a	3.91 Ielivery f	ixture	1.10				1.29	4.04		3.51

Netbacks (standard freig	Netbacks (standard freight costs*) \$											
	India	China	Japan	South Korea	Taiwan	lberian peninsula	Greece	Italy	Turkey	NW Europe	North- east US	
Middle East	21.43	21.67	21.50	21.63	22.00	5.80	6.30	5.91	6.31	5.50	3.24	
Australia	20.66	22.46	22.50	22.54	22.79	4.98	5.44	5.09	5.49	4.64	2.41	
Nigeria	19.53	20.22	20.09	20.21	20.59	6.47	6.16	6.06	6.15	6.16	4.19	
Norway	19.21	19.40	19.32	19.48	19.82	6.77	6.37	6.27	6.36	6.82	4.52	
Algeria	20.22	20.44	20.39	20.52	20.85	7.23	7.23	7.13	7.22	6.88	4.62	
Trinidad and Tobago	18.93	19.28	19.07	19.19	19.71	6.42	6.11	6.02	6.11	6.22	5.02	
Russia	20.05	23.00	23.42	23.33	23.21	4.43	4.89	4.54	4.87	4.13	2.13	



FREIGHT COSTS AND NETBACKS

Spot (ARV) freight cos	ts*														\$/m	n Bt
	route via	Ain Sukhna and Aqaba	Aliaga	Altamira	Dahej and Qasim	Escobar	Incheon	Jebel Ali and Mina al-Ahmadi	Manzanillo	Map ta Phut	Milford Haven	Pecem	Quintero	Shenzen and Taipei	Singapore	
Angola	- Suez	1.86	1.50	1.75	1.84	1.16	3.23	1.99	2.15	2.14	1.30	0.87	1.75	3.84	1.94	3.3
Bintulu and Tangguh	Panama - Suez Panama	1.70	1.71	3.43 3.17	1.05	2.45	0.74	1.31	2.35	0.40	2.32	2.44	2.66	0.52	0.29	0.8
Bonny	- Suez Panama	1.71	1.40	1.65	1.99	1.21	3.40	2.14	2.05	2.29	1.15	0.82	1.75	2.49	2.14	3.4
Bontang	- Suez Panama	1.85	1.88	3.56 3.13	1.27	2.45	0.85	1.48	2.31	0.62	2.45	2.54	2.47	0.59	0.47	0.8
Dampier	- Suez Panama	1.51	1.88	2.97 3.17	1.02	2.26	1.18	1.20	2.46	0.80	2.45	2.31	2.37	0.96	0.62	1.1
Gladstone	- Suez Panama	2.05	2.37	2.45	1.51	2.07	1.30	1.69	1.89	1.28	2.93	2.63	1.85	1.18	1.10	1.2
Rotterdam	- Suez Panama	1.22	0.91	1.35	1.85	1.74	3.83	1.95	1.95	2.70		1.11	2.39	3.58	2.45	3.9
Papua New Guinea	- Suez Panama	2.05	2.37	2.45 2.75	1.42	2.26	1.18	1.69	1.89	1.06	2.93	2.63	1.85	0.96	1.10	1.0
Ras Laffan and UAE	- Suez	0.69	1.14	2.75	0.33	2.45	1.89	0.16	3.44	1.39	1.70	2.32	2.89	1.63	1.17	2.0
Sakhalin	- Suez Panama	2.65	2.37	4.27 2.52	1.85	2.84	0.52	2.10	1.65	1.06	2.98	3.25	2.37	0.70	1.06	0.4
Singapore	- Suez	1.52	1.62	3.27	0.95	2.42	0.85	1.16	2.52	0.36	2.18	2.44	2.66	0.59		0.9
Sagunto	- Suez Panama	0.83	0.46	1.41	1.46	1.55	3.34	1.52	1.95	2.25	0.51	0.96	2.19 2.15	3.05	2.06	3.4
Trinidad and Tobago	- Suez	1.71	1.40	0.61	2.34	1.18	4.48	2.39		3.01	1.05	0.51	1.80	4.19	2.82	4.6
USGC	Panama - Suez	1.96	1.70	0.18	2.58	1.66	3.46 4.68	2.68	1.00	3.48	1.30	1.01	1.19 2.28	3.58 4.60	3.29	3. ⁻ 4.7

*ARV freight costs take into account a varying proportion of return leg fuel and charter costs, in line with Argus' ballast bonus assessments . For more details, consult the Argus Round Voyage methodology.

Netbacks (ARV freight costs*) \$/mn Btu (promp												
	India	China	Japan	South Korea	Taiwan	lberian peninsula	Greece	Italy	Turkey	NW Europe	North- east US	
Middle East	21.49	21.89	21.77	21.88	22.21	5.84	6.33	5.94	6.34	5.54	3.27	
Australia	20.80	22.60	22.66	22.70	22.92	5.04	5.49	5.14	5.54	4.70	2.44	
Nigeria	19.79	20.60	20.51	20.62	20.95	6.49	6.20	6.10	6.19	6.20	4.20	
Norway	19.50	19.87	19.81	19.96	20.25	6.79	6.40	6.30	6.39	6.84	4.54	
Algeria	20.41	20.79	20.77	20.89	21.18	7.24	7.24	7.14	7.24	6.90	4.64	
Trinidad and Tobago	19.25	19.76	19.59	19.70	20.18	6.45	6.14	6.05	6.15	6.25	5.03	
Russia	20.26	23.08	23.48	23.41	23.29	4.49	4.94	4.60	4.94	4.20	2.16	



NEWS

Asian LNG prices at record high on 'perfect storm'

Strong consumer demand, lower-than-expected temperatures across northeast Asia and a severe shortage of prompt LNG supplies and spot tanker availability have combined to send northeast Asian spot LNG prices to an all-time high just nine months after hitting record lows.

The front half-month ANEA price surged to \$21.785/mn Btu for first-half February on 6 January, surpassing the previous record of \$20.40/mn Btu on 4 February 2014. The price has risen by \$5.35/mn Btu, or around 33pc, since the start of the year; by 170pc from the assessment of \$8.065/mn Btu on 4 December; and is up 13-fold from its unprecedented low of \$1.675/mn Btu on 30 April.

The perfect storm of market factors has maintained the seemingly inexorable momentum in northeast Asian spot LNG prices, surpassing most market participants' winter price expectations. Consumers are scrambling to secure prompt deliveries to replenish LNG inventories amid plummeting temperatures.

Spot availability for prompt deliveries has been in short supply as a consequence of a string of events in recent months. These include robust demand for winter deliveries up to February, reduced production at US liquefaction facilities because of cargo cancellations by offtakers, supply disruptions at plants in the US, Malaysia, Qatar, Australia and Indonesia, and significant delays for LNG carriers transiting the Panama Canal on route to northeast Asia from LNG facilities in the US.



Prices typically rise during the winter season. But market participants did not expect such a rapid escalation, with prices rising by a never-before-seen magnitude. Many had anticipated that winter prices would top out at \$8-9/mn Btu. Instead, the front-half month ANEA price has posted massive day-on day gains since December, almost doubling from \$7.94/mn Btu on 1 December to \$15.56/mn Btu on 31 December.

Vessel squeeze

A lack of available vessels for spot charters in both the Atlantic and Pacific basins has squeezed spot charter rates, compounding the impact of tight LNG supplies and high cargo prices.

Argus spot round-voyage rates have reached their highest level this winter, with the ARV3 – the Argus round-voyage assessment for a shipment from the US Gulf Coast to northeast Asia – assessed at \$179,518/d on 6 January, up from \$113,392/d on 4 December and \$67,071/d on 6 October.

Buyers deem spot prices at \$21-22/mn Btu "insane," especially when compared to oil-linked term contract prices. The Argus oil-linked Japan des price for February was at \$6.91/mn Btu on 5 January. Many long-term LNG contracts are indexed at 14-15pc of crude, whereas spot prices at \$21-22/mn Btu are equivalent to around 40pc of Brent, based on the front-month Ice Brent settlement at \$54.30/bl on 6 January.

But further gains are expected in the near term. Some traders suggest that first-half February could easily test the \$30/mn Btu level, especially as Japan's power prices have soared on stronger-than-expected electricity demand for heating purposes because of colder-than-expected weather. Wholesale electricity prices in Japan hit an all-time high of ¥99.9/kWh on 7 January, more than seven times the average price of ¥13.93/kWh in December.

Some Japanese utilities are facing a shortage of LNG and are seeking prompt deliveries urgently, even as they have been forced to lower operating rates at some of their gas-fired power plants to avoid any unscheduled shutdowns resulting from inadequate LNG supplies.

Japan's Jera bought a cargo on 6 January for delivery either in second-half January or first-half February at \$24/ mn Btu, and could still be in the market to buy February cargoes, market participants said. Utility Kyushu Electric is also enquiring for a second-half January cargo on a bilateral basis.

South Korean buyers Kogas and Prism Energy, as well as several Chinese consumers, are seeking first-half February cargoes.





Deep freeze

Continued spells of very low temperatures beyond this week could extend the current rally, especially if demand remains unfulfilled for first-half February and is rolled into later delivery windows, market participants said. Temperatures in Beijing hit a low of -30°C on 30 December and are at -8°C on Thursday. Temperatures are at -14°C and 8°C in Seoul and Tokyo, respectively, on Thursday.

But the extremely wide intra-month February spread – at \$5.785/mn Btu on 6 January – reflects expectations that increasing cargo availability for deliveries from the second-half of February will exert downward pressure on prices.

At least 15 cargoes may be available for delivery in second-half February as traders optimise their portfolios to divert cargoes intended for delivery to Europe or the Middle East to northeast Asia instead.

The increase in prompt prices above the \$20/mn Btu threshold has incentivised some producers to also make a few second-half January cargoes available this week. The offers include two cargoes from Qatar, as well as one 21-28 January delivery that ExxonMobil is offering from the 15.6mn t/yr Gorgon facility in Australia through a tender.

Market participants said there were no offers for second-January at the end of last week. *Argus* is no longer assessing second-half January prices and last assessed prices for the delivery window on 31 December at \$15.68/mn Btu. *By Camille Klass*

Japan's power prices hit record highs on LNG shortage

A severe shortage of LNG supplies among Japanese power utilities on the back of an unseasonably cold winter has driven the country's wholesale electricity prices to a record high of nearly ¥100/kWh.

Extremely low temperatures throughout Japan since mid-December have boosted electricity consumption for heating purposes, drawing down LNG inventories at a faster-thanexpected pace.

Temperatures in 10 major cities — Sapporo, Sendai, Tokyo, Nagoya, Kanazawa, Osaka, Takamatsu, Hiroshima, Fukuoka and Naha — averaged 4.38°C across 1-6 January, compared with 7.59°C in December, the Japan meteorological agency said. Total power consumption in the country during 1-6 January rose by 13.9pc on the year to 15,118GWh, according to power agency the organisation for cross-regional co-ordination of transmission operators (Occto).

Wholesale electricity prices on the Japan electric power exchange (Jepx) have surged in the past six days, continuing to hit and refresh record highs each day. Jepx's system-wide prices for day-ahead contracts reached their highest-ever level of ¥99.9/kWh (\$968.8/MWh) on Thursday, more than sevenfold the average price of ¥13.93/kWh in December. Several Japanese power utilities have cut production at their gas-fired power units to avoid depleting inventories and causing any unplanned outage.

At least three major utilities, including Jera – a 50:50 thermal power joint venture between Tokyo Electric Power and Chubu Electric Power – Kansai Electric Power and Kyushu Electric Power, said they are short of LNG supplies and have turned to capping gas-fired power generation, despite the hike in electricity demand.

Jera has reduced production from its Higashi Ogishima power generator unit 2 since 4 January, while Kansai Electric has lowered output from its Himeji Daini power generator since 1 January, according to Jepx data.

But these firms have been active in the LNG spot market to replenish inventories, particularly for prompt deliveries. Jera may have bought a cargo for delivery either in secondhalf January or first-half February at around \$24/mn Btu on Wednesday, and could still be in the market to buy more February cargoes, market participants said.

Kansai Electric has purchased around 2.5-3.5 cargoes for delivery from January to early February since 20 December, market participants said. This includes its most recent purchase of a partial cargo from a portfolio supplier last week for end-January delivery, they said.

Kyushu Electric has been enquiring on a bilateral basis for a second-half January cargo and may issue a tender to buy the cargo if it is unable to secure it through bilateral discussions. This comes just about a month after the firm sold a late-January cargo, likely at around \$11-12/mn Btu, in the week of 7 December, market participants said.

Reduced gas-fired power capacity, as well as limited nuclear and solar power output, may have discouraged the country's major utilities from selling electricity on the exchange to meet firm electricity demand from their own customers.

The power shortage has been especially noticeable in the Tokyo and Kansai regions. The Occto on Wednesday instructed electricity producers in both areas to operate at maximum capacity and increase supplies to the Jepx to avoid any blackout. The agency also asked power firms in other service areas to sell any surplus power output on the exchange.

Market participants expect power prices to remain elevated, particularly if colder temperatures extend through January. But a Covid-19 second state of emergency in Tokyo and its surrounding regions starting from on Friday could help offset some demand, particularly from the industrial sectors, market participants said.

"Energy consumption may fall because industrial activity will reduce with the state of emergency. I think LNG spot demand for several cargoes may disappear from Japan until mid-February," a trader at a Japanese utility said.

By Motoko Hasegawa and Joey Chua





ExxonMobil offers 2H January cargo from Gorgon

ExxonMobil is offering one cargo for 21-28 January delivery from the 15.6mn t/yr Gorgon LNG facility in Western Australia, with bids for the tender due on 8 January.

The tender comes amid severe supply tightness, particularly for prompt delivery, for northeast Asia. Market participants estimated the number of available cargoes for delivery in the second half of January at no more than three cargoes earlier this week. This included the anticipated offer by ExxonMobil, as well as a cargo each from Chevron and a European trader, they said.

The supply shortage has driven LNG prices to an all-time high in the first week of the new year, driven by strong winter demand and dwindling supply inventories across northeast Asia. Congestion at the Panama canal, limited vessel availability and firm charter rates have also fuelled the gains. Argus is no longer assessing prices for delivery in the second half of January. The ANEA price, the Argus assessment for spot deliveries to northeast Asia, for second-half January was last assessed on 31 December 2020 at \$15.68/ mn Btu. It stood at 7.595/mn Btu on 1 December.

There is some unmet demand, albeit limited, for secondhalf January deliveries. Japanese and South Korean buyers are facing extremely low temperatures and LNG stock levels but are looking for deliveries in the first half of February.

Norwegian Equinor is seeking one cargo for delivery to its 4.2mn t/yr Hammerfest liquefaction facility, with offers due on Thursday and expected to remain valid until Friday. India's Petronet LNG is also looking to buy a cargo for delivery to either its 17.5mn t/yr Dahej LNG terminal in Gujarat or its Kochi LNG receiving terminal in Kerala. Offers are due by 11 January and will remain valid until 13 January.

The last transaction for a second-half January delivery to northeast Asia was done at the high \$13s-\$14/mn Btu on 24 December, for a 26-30 January delivery from Gladstone LNG. Market participants expect the Gorgon cargo to be traded close to first-half February levels, given supply tightness for both half-month delivery windows.

The ANEA price for first-half February was assessed at \$21.785/mn Btu on 6 January, up by \$3.025/mn Btu from a day earlier and a new all-time high.

ExxonMobil holds a 25pc interest in the Gorgon LNG project, while Chevron and Shell each have a 47.3pc and 25pc stake.

By Tatiana Rosli

India's Petronet seeks second-half January cargo

India's Petronet has issued a tender to buy one LNG cargo for delivery in second-half January to either the 17.5mn t/yr Dahej terminal in Gujarat or its 5mn t/yr Kochi terminal in Kerala state.

Offers are due on 11 January and are expected to remain valid until 13 January.

It is unclear why the firm is seeking the cargo on such a prompt basis. But market participants suggest that it may have failed to take delivery of a January cargo that it was originally scheduled to receive. The details surrounding this are unclear.

Petronet's last purchase was a 16-18 December delivery to Dahej on 10 November. The transaction price was equivalent to a 5¢/mn Btu discount to a spot LNG price on 10 November for deliveries in second-half January to India. The firm had sought a second-half December through a tender that closed on 10 December but did not award it, probably because of the offers it received were higher than it expected.

Petronet's prompt requirement comes amid a severe shortage of supplies for the delivery window because of robust demand from several northeast Asian buyers since October and a series of supply disruptions in the Pacific and Atlantic basins that shrank the supply pool.

Two cargoes from Qatar for delivery in second-half January are possibly the only spot supplies available that may meet Petronet's requirements. ExxonMobil will be loading a cargo in the next two days from the 15.6mn t/yr Gorgon LNG in Australia. But the firm has specified northeast Asia as the intended destination with an estimated delivery to the region across 21-28 January.

Northeast Asia's wide price premium to India makes northeast Asia a far more attractive destination than India for sellers, market participants said.

The Argus-assessed price for first-half February deliveries to India was at \$19.575/mn Btu on Wednesday, \$2.21/mn Btu lower than for northeast Asia. The ANEA price, the Argus assessment for spot deliveries to northeast Asia, for firsthalf February was at \$21.785/mn Btu. The front half-month spread between the two regions was narrower at 55¢/mn Btu on 7 December.

Argus is no longer assessing prices for second-half January deliveries. But market participants expect any secondhalf January transactions to be done close to first-half February levels, given a supply tightness for both halfmonth delivery windows. Argus last assessed second-half January prices for deliveries to India at \$13.605/mn Btu on 31 December.

The recent rally in spot prices has sidelined other Indian buyers, which are typically more price sensitive than their northeast Asian counterparts. Gujarat State Petroleum did not award two tenders to buy a 29-31 January cargo and a 28-31 January cargo on 23 December and 22 December respectively because of high offers. Private-sector conglomerate Reliance Industries did not award its tender to buy a 14-21 January cargo for the same reason.





The *Argus*-assessed price for front half-month deliveries to India has more than doubled from \$7.56/mn Btu on 1 December to \$19.575/mn Btu on Wednesday.

A few consumers in other regions are also seeking second-half January cargoes. Japanese power utility Kyushu Electric has been enquiring on a bilateral basis for a secondhalf January cargo and may issue a tender to buy the cargo if it fails to secure one through bilateral discussions. By Joey Chua

Equinor seeks late January cargo for Hammerfest

Norway's Equinor is seeking a second-half January cargo for delivery to its 4.2mn t/yr Hammerfest liquefaction facility. Bids for the tender are due on 7 January and valid until the next day.

It is unclear why the firm is seeking a delivery to Hammerfest, given the facility is expected to remain off line until October following a fire at the end of September last year.

Equinor's tender comes amid severely tight cargo availability for deliveries in second-half January. Strong consumer demand in northeast Asia for prompt deliveries driven by colder-than-expected weather has propelled spot prices to a record high.

India's Petronet LNG is also seeking a second-half January cargo for delivery to either its 17.5mn t/yr Dahej LNG terminal in Gujarat or the Kochi LNG receiving terminal in Kerala. Offers are due by 11 January and expected to remain valid until 13 January.

Market participants estimate that no more than three cargoes may be available for delivery in second-half January. This includes one cargo that ExxonMobil is offering for delivery across 21-28 January from the 15.6mn t/yr Gorgon LNG facility in Western Australia through a tender.

Argus is no longer assessing prices for deliveries in the second half of January. The *Argus*-assessed price for deliveries to northeast Europe in second-half January was last assessed on 31 December at \$7.30/mn Btu, up from \$5.20/mn Btu on 1 December.

The current supply squeeze for second-half January and first-half February deliveries could mean that Equinor will end up paying a price close to first-half February levels for its second-half January cargo.

The *Argus*-assessed price for deliveries in first-half February was assessed at \$6.80/mn Btu on 6 January. *By Tatiana Rosli*

Mexico's CFE seeks three LNG cargoes

Mexican utility CFE is seeking three LNG cargoes for delivery in February-April through a tender issued on Thursday. The firm is seeking three cargoes of 128,000-160,000m³ for delivery to the 3.8mn t/yr Manzanillo terminal on Mexico's Pacific coast on 17-18 February, 9-10 March and 1-2 April. CFE required offers, indexed to Asian spot prices or the US Henry Hub price, to be submitted between 06:00 and 10:00 Mexico City time (00:00-04:00 GMT) on 13 January.

CFE was last heard on the market in early December when it sought three deliveries to Manzanillo for late December-early February. Mexico has only been receiving deliveries at Manzanillo in recent months after the completion of the 2.6bn ft³/d Sur de Texas-Tuxpan offshore natural gas pipeline in September 2019 almost completely displaced LNG deliveries to the 5.4mn t/yr Altamira terminal. The subsequent completion of the 5bn ft³/d (141.5mn m³/d) Wahalajara pipeline network in October allows US pipeline gas to reach the western part of the country and may also displace deliveries to Manzanillo in the coming months.

LNG deliveries to Mexico already fell sharply to just 1.84mn t in 2020, from 4.86mn t a year earlier and 5.01mn t in 2018.

By Antonio Peciccia

KPC seeks late February LNG delivery

Kuwait's state-owned KPC is seeking a LNG cargo for delivery at its 5.7mn t/yr Mina al-Ahmadi facility on 24-25 February through a tender issued on Thursday.

Submissions to the tender — which are requested to be in fixed-price format — can be submitted by midday local time (09:00 GMT) on 14 January and will remain valid until 20:00 local time on the same day.

The delivery is for a commissioning cargo, market participants said. Kuwait typically buys a cool-down cargo early in the year as it prepares to resume imports at its floating storage and regasification unit (FSRU), after halting deliveries during winter months. Kuwait last received a cargo in mid-December.

The 170,000m³ *Golar Igloo*, which serves as an FSRU at Mina al-Ahmadi, left the terminal on 1 January and was on Thursday declaring for arrival at Dubai. The unit also underwent modifications last winter, which increased its regasification capacity.

Kuwait is also building a 22mn t/yr onshore facility at Al-Zour, which is expected to begin operations in 2022, having been delayed from an originally planned start-up of 2021. That said, market participants suggested the project may still be on track with the original timeline and could start deliveries in the first half of 2021. By Samuel Good



Japan declares emergency on surging Covid-19 cases

A surge in Covid-19 cases has forced Japan to declare a second state of emergency. But the government plans to impose limited restrictions, hoping to minimise economic disruption at a time when the country is recovering from an earlier pandemic-driven downturn.

Premier Yoshihide Suga's government has declared a state of emergency for Tokyo and the three neighbouring prefectures of Kanagawa, Chiba and Saitama starting from Friday to rein in new cases of Covid-19 and help relieve the pressure on medical services. The emergency measure will remain in place for a month until 7 February.

This is the country's second emergency declaration to combat the Covid-19 pandemic. Japan declared its first state of emergency in April-May last year, pushing its economy to a record contraction during the April-June quarter. The economy rebounded by 22.9pc in July-September from the previous quarter.

The number of new daily infections in Japan has been soaring since last November and on Wednesday topped 6,000 for the first time, compared with a high of 700 during the first emergency period in April 2020 and around 1,000 in early November. Tokyo and the three adjacent prefectures are making up around half of total daily infections.

Under the new state of emergency, restaurants and bars must close by 8pm in Tokyo and its surrounding areas. Residents are requested to stay home, particularly after 8pm, unless there are urgent reasons not to do so.

The government is also urging companies in the areas to ensure 70pc of their staff work remotely as part of efforts to reduce the level of people movement and interaction. Schools will be allowed to stay open, while the number of spectators at events will be capped at half capacity, or a maximum of 5,000.

The second emergency declaration will focus more on restaurants and bars as Tokyo considers it vital to reduce virus transmission risks without much economic impact, particularly ahead of the Tokyo Olympic Games, which has been postponed by a year. The government last month also suspended nationwide travel campaigns in the wake of soaring new Covid-19 infections.

But the state of emergency may be expanded to other areas, or even nationwide, potentially dealing a blow to Japan's economy and industry. Covid-19 infections are increasing in other major business and industrial areas including Aichi prefecture's Nagoya and western Japanese prefectures of Osaka, Hyogo and Kyoto. Their governors have asked residents to refrain from travelling to Tokyo and its nearby areas during the emergency period and hinted that they may ask the government to also declare a state of emergency in their respective prefectures if the situation worsens. The state of emergency may also be extended if it fails to effectively control Covid-19 infections. Economic minister Yasutoshi Nishimura on Thursday told parliament that the government is targeting to reduce the number of new Covid-19 infections to 25 per 100,000 residents in one week, before lifting the second state of emergency in Tokyo and its nearby areas. This is equivalent to around 500 daily new infections for Tokyo. The number of new cases hit a record 2,447 in Tokyo on Thursday.

Japan last year imposed tough quarantine restrictions under its first state of emergency, initially in areas near Tokyo and Osaka. The state of emergency was later expanded nationwide and ended in two months. A pandemicdriven economic slowdown and reduced trade flows globally hampered manufacturing activity in the country during April-June last year, while travel curbs dampened demand for motor and jet fuels.

By Rieko Suda

More Russian LNG to buoy UK sendout

The UK's 14.8mn t/yr Isle of Grain LNG terminal has booked a Russian cargo for next week, allowing for regasification to remain strong in the coming days.

The 172,600m³ *Boris Davydov* has declared for Isle of Grain for 11 January, having cast off from the Yamal lique faction complex in Sabetta earlier this week.

The delivery is expected just two days after the 172,600m³ *Georgiy Brusilov*, while the 172,600m³ *Fedor Litke* already discharged a Russian cargo earlier this month.

Stocks at Isle of Grain were at 80.2pc of capacity at the start of Thursday's gas day, leaving 191,200m³ of available space. Aggregate sendout — including deliveries to the local grid — would need to be at least 24.3mn m³/d on 7-10 January in order to clear sufficient space for a full cargo from the *Boris Davydov* at the start of the 11 January gas day.

NBP prompt prices holding well above contracts for delivery later in winter have encouraged Isle of Grain regasification to climb above this required rate. Sendout to the national transmission system was 28.2mn m³/d in the first quarter of Thursday's gas day, up from 25.6mn m³ on Wednesday and 10.7mn m³/d earlier in the month.

Sendout from the 4mn t/yr Dragon terminal also ticked up this morning, to 17.1mn m³/d from 13.7mn m³ on Wednesday and 8.1mn m³/d earlier in January. Regasification from the 15.6mn t/yr South Hook terminal held at 6.4mn m³/d, consistent with earlier in the month.

All four of the UK's LNG receipts booked for this month so far – including the 172,600m³ *Rudolf Samoylovich*, which delivered to Dragon on Wednesday – have been of Russian origin.

No deliveries have been scheduled yet for South Hook this month.

By Elaine Atwood

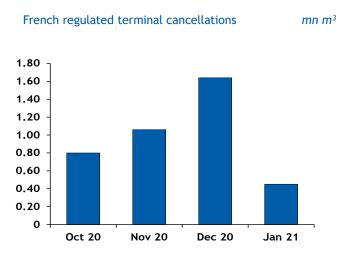




France cancels more LNG deliveries

French regasification will be lower than previously anticipated this month after more deliveries were removed from terminals' schedules.

The 9.4mn t/yr Dunkirk terminal on Thursday removed two deliveries amounting to a combined 340,110m³ of LNG from its January schedule. And the 6mn t/yr Fos Cavaou cancelled a delivery of 138,200m³ initially booked for 14 January.



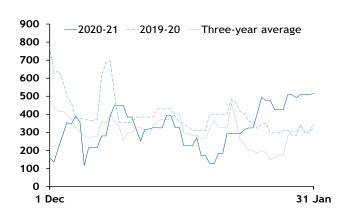
This takes total January LNG cancellations in France to 790,590m³, of which 450,480m³ was removed from the schedules of regulated terminals.

Cancellations could continue in the coming weeks, after rising over the course of the fourth quarter (see cancellations graph).

There has been a strong incentive for cargoes to be redirected to northeast Asian markets in recent weeks, with Peg prices closing well below northeast Asian LNG prices. The Peg January contract expired at a discount of \$6.51/mn Btu to the February ANEA price on 31 December. And the interbasin arbitrage has widened further in recent days, with spot ANEA prices at an all-time high on Thursday.

French regulated terminal sendout

GWh/d



Combined sendout from France's three regulated terminals is still nominated above average for the rest of January (see sendout graph). It is scheduled to average 337GWh/d on 7-31 January, down from 378GWh/d previously but still 65GWh/d above average. By Auguste Breteau

Turkish utilities finalise 2021 gas supply deals

Most Turkish utilities have decided to take the majority of their gas supply for 2021 from Botas.

But at least eight of them will also receive some deliveries from private-sector suppliers or through exchange platform Exist.

Utility Unit will receive all of its supply from Botas, while Acwa and Gama will take more than 90pc of their gas from Botas, market participants said.

Only two utilities, RWE and Bilgin, will receive most of their supply from the private sector.

Some companies that decided to take more than 20pc from the private sector may have opted for a six-month rather than a full-year contract with Botas, market participants said. This could enable them to mitigate the risk of a sharp increase in regulated tariffs in the second half the year.

High exchange rate volatility last year - as the lira depreciated sharply against the dollar between late summer and November - combined with more flexibility in Botas' 2021 supply contracts, encouraged most utilities to resort to Botas for this year's supply.

But Botas increased its regulated tariffs for this month, in contrast to expectations from market participants that they would remain unchanged. The fee for utilities rose to 1,414 Turkish lira/'000m³ from TL1,400/'000m³ in July-December.

Firmer Turkish LNG des prices may have prompted Botas to lift its fees. One market participant suggested that the rise in regulated tariffs could be an effort to avoid a higher increase in the second quarter, when oil-indexed gas import costs are expected to rise, but others said that this was unlikely to be the driver as the increase in tariffs was minimal.

The cost of Russian gas is expected to rise to \$186.7/'000m³ in the second guarter from \$170.96/'000m³ in January-March, based on Argus' assessment of Turkey's longterm contract prices.

Offers from the private sector to utilities started at a \$6/'000m³ premium to Russian gas prices, which later fell to \$1-2/'000m³, market participants said.

Utilities may again resort to the exchange platform Exist to purchase additional supply in excess of agreed volumes, market participants said. This could be especially the case for those utilities that left minimal volumes to be covered from suppliers other than Botas.





South Korean power generation outlook

TWh

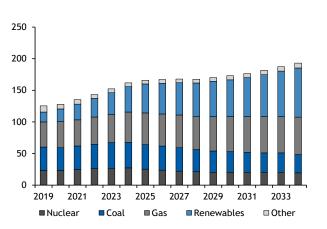
Prices on the exchange typically hold a discount to Botas' tariffs. They averaged TL1,320.12/'000m³ on 1-6 January, up from TL1,307.52/'000m³ in all of December. But they were still well below Botas' regulated tariff of TL1,414/'000m³ for January. *By Eleni Charisi*

Seoul reaffirms its commitment to reduce coal reliance

Coal-fired power generation in South Korea is expected to decrease by 23pc by 2030 from 2019's level, under the government's ninth basic electricity plan. This would reduce annual power-sector coal consumption by around 18.6mn t/ year of NAR 5,700 kcal/kg-equivalent material.

The ministry of energy and industry (Motie) last month finalised its plan to reduce the share of coal in South Korea's electricity mix to 29.9pc in 2030, compared with 40.29pc in 2019. The plan also confirms the government's intention of converting 24 of state-owned Kepco's coal units with around 12.7GW capacity to run on gas by 2034, although gas' share of the power mix will still decrease to 23.3pc in 2030, from 25.8pc in 2019.

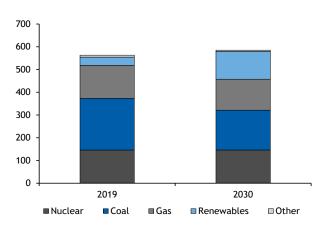




The government also aims to have renewable sources account for around 121.7TWh or 20.8pc of power generation by 2030, which implies overall power generation will be around 585.1TWh in 2030, up by around 4pc from 2019.

On this basis, the targeted 29.9pc share for coal would be the equivalent of 174.9TWh in 2030, down by around 51.9TWh from 226.8TWh in 2019. This is the equivalent of 62.8mn t/year NAR 5,700 kcal/kg-equivalent coal burn in 40pc efficient plants, according to *Argus*' analysis, which would be 18.6mn t/year lower than in 2019.

Gas-fired power output would decrease by 8.8TWh to 136.3TWh in 2030 from 2019 under the plan, which is equivalent to 16.4mn t annual LNG consumption in 55pc efficient power plants and 1.06mn t/year less LNG than in 2019.



The ministry also plans to reduce the country's coal capacity to 32.6GW and increase gas capacity to 55.5GW in 2030. Based on these targets, South Korean coal capacity would be dispatched at a 61pc load in 2030 compared with a 70pc load in 2019. But gas' load factor will decrease by more than 32pc to 28pc in 2030, as fossil fuels are expected to play a bigger role in meeting peak power demand and a smaller role in the base load amid rising renewable generation.

The Moon Jae-In administration remains committed to its nuclear phase-out policy in the latest electricity plan and will gradually reduce nuclear capacity to 20.4GW in 2030 and then 19.4GW in 2034, from 23.25GW in 2019. But nuclear's share of total generation will remain flat at 25pc in 2030 compared with around 25.9pc in 2019, which means South Korea's annual nuclear output will edge higher to 146.3TWh in 2030, from 145.9TWh in 2019, according to *Argus*' analysis.

Solar capacity accounted for around 71pc of South Korea's total renewable capacity as of 2020, with 2020 solar output expected to reach 16.6TWh. Motie has forecast solar output to increase to 45.5TWh in 2030, accounting for around 37pc of all renewable generation.

The share of wind generation in the renewables mix will increase to 33pc in 2030 from 7.5pc in 2020, driving the overall growth in renewable output.

South Korea typically updates its 15-year energy plan every two years, although the ninth plan was set back by over a year.

By Evelyn Lee and Jake Horslen

Total withdraws staff from Mozambique LNG site

Total has withdrawn part of its staff from the construction site of the Mozambique LNG project amid rising security concerns.

Total E&P Mozambique Area 1, operator of the Mozambique LNG project, has reduced the number of personnel present at the Afungi site, "in view of the evolving



security situation in the Cabo Delgado province and in the district of Palma", the company said. The evacuation process is under way and the firm is taking all necessary measures to ensure the safety and security of its staff and subcontractors, it said.

Total did not comment on whether the completion is expected to be delayed or if the timeline is under review. The firm said last month that it still expected to deliver first LNG cargoes from the project in 2024, "despite the challenges 2020 has presented – including the global pandemic, infrastructure constraints and security concerns". Any delays in the project's completion may contribute to tighten the global LNG market by the middle of the decade, with industry participants already expecting a tighter supply-demand balance as a result of the lack of final investment decisions (FIDs) in new liquefaction projects this year.

Security concerns in the area have been increasing in recent months. An Islamist militant group is suspected of being responsible for a number of recent attacks on villages in Mozambique's northern Cabo Delgado province, with more than 50 people killed in the latest attack in November.

Total in August signed a security pact with the government with the aim to safeguard its \$20bn project, after Islamist insurgents on 11 August seized the port of Mocimboa da Praia, 60-80km south of the project site on the Afungi peninsula. The project operator has built its own marine facilities and was not using Mocimboa da Praia as a logistical hub, but the port is in an important town on the main roads from Pemba and Mueda to Palma.

An attack took place in February 2019 as close as 20km to the construction site, and involved staff working on the project. A worker from construction contractor Gabriel Couto was killed, and six people were injured in a separate attack as insurgents attacked a transport convoy of US independent Anadarko, which operated the project before selling its 26.5pc stake to Total last year. By Antonio Peciccia

Poland moves forward with terminal infrastructure

Polish state-owned system operator Gaz-System will move forward with a new entry point to the national network and pipeline to serve the planned Gdansk LNG import terminal.

The operator signed a contract with engineering firm ILF Consulting Engineers Polska for the design of the Gustorzyn-Wicko pipeline, intended to complement a planned floating storage and regasification unit (FSRU) at the port of Gdansk in Poland.

The Gustorzyn-Wicko line will have a total length of about 214km, to be built in two stages.

And design works on the 35km Kolnik-Gdansk pipeline are also "in progress", the operator said. The shorter line will connect the FSRU with a planned entry point at Kolnik.

The non-binding phase of a market test for the terminal ended in late September and "confirmed" market interest, Gaz-System said previously.

The FSRU is expected to have a capacity of at least 4.5bn m³/yr and to run from the 2026-27 gas year for 20 years.

Poland already has an LNG terminal, the 3.9mn t/yr Swinoujscie. Its capacity is scheduled to be expanded to 6.2bn m³/yr from 2022 and to 8.3bn m³/yr from 2024. By Eleni Charisi

Celsius shipping receives second LNG carrier

Denmark's Celsius Shipping has received its second LNG carrier - the 180,000m³ Celsius Canberra - from South Korean shipbuilder Samsung Heavy Industries.

The carrier, which underwent sea trials in early November and gas trials in early December, is tied to a term charter with US operator Cheniere. Celsius Shipping has two LNG carriers remaining on its order book, both of which will also be chartered to Cheniere and are scheduled for delivery in the first half of this year.

Celsius Shipping received its first LNG carrier in October, which was chartered to trading firm Gunvor's shipping subsidiary Clearlake.

The new delivery marks the seventh newbuild LNG carrier to enter the global fleet so far this year, as well as one floating storage and regasification unit. There remain around 13 ordered carriers that are scheduled to be handed over to owners in the first quarter of 2021, which would bring the total to 20 carriers - much higher than the four delivered a year earlier. A further 34 carriers are expected for delivery in the remaining three quarters of 2021. By Samuel Good

European LNG sendout plummets in December

European regasification slid again on the year in December as northeast Asia remained a more profitable destination, and sendout could stay weak this month.

Aggregate European regasification dropped to around 1.95 TWh/d last month from 3.15 TWh/d a year earlier.

Argus Northeast Asian (ANEA) delivered prices at a wide premium to European gas hubs continued to draw a large share of uncommitted Atlantic-basin cargoes to the Pacific, limiting supply availability for European terminals.

Below-average temperatures across northeast Asia increased the region's consumption, drawing down inventories and increasing spot LNG demand.





Strong Japanese power-sector gas demand drove the country's December LNG imports up to the highest for any month since February 2018. And coal capacity restrictions in South Korea increased to 8.7GW last month from 5.2GW in December 2019, driving down coal-fired generation and lifting the need for LNG.

Over half of Russia's Yamal LNG exports were delivered to Europe last month, rising from November, but they still fell on the year. Asia received its first December cargo through the Northern Sea Route last month, with the route having already closed in October last year.

French sendout continues drop

While sendout fell across Europe in December, France led the drop for a second consecutive month.

French regasification plummeted to 337 GWh/d last month from 764 GWh/d a year earlier, although the drop was less sharp than in November.

There were substantial cancellations at France's regulated terminals, similar to November, with 1.64mn m³ of LNG removed from the provisional schedule.

LNG sendout also slowed significantly in the Netherlands and Belgium.

The 8.7mn t/yr Gate terminal received only two cargoes last month, well below the 10 of a year earlier.

And Belgium's 7.2mn t/yr Zeebrugge, which is largely supplied with Qatari LNG, received no full cargoes, instead performing several transshipments of Yamal cargoes for delivery on to more profitable destinations.

Europe's Qatari imports are largely made up of cargoes that are not needed by long-term customers in Asia-Pacific.

Asian demand to stay strong in early 2021

European LNG imports and sendout are set to stay muted in early 2021 as cold weather could continue to boost Asian demand.

Expected cold weather across northeast Asia in the coming weeks combined with lower regional LNG stock levels could continue to drive high Asian demand in early 2021, in turn leaving fewer cargoes for Europe. France's 7.25mn t/yr Montoir already cancelled two January deliveries this week. And Spanish LNG imports have been revised significantly lower in recent days from the provisional schedule, although they are still expected to edge up from a year earlier.

A wider inter-basin arbitrage, with ANEA prices continuing their rally, could incentivise further cancellations at European terminals in the coming weeks. By Silvia Fernandez Martinez

Australian LNG exports ease in November

Australia's LNG exports eased slightly to 6.97mn t in November from a nine-month high of 7.04mn t in October, as strong shipments from the Queensland port of Gladstone offset a lack of production from the Shell-operated 3.6mn t/yr Prelude floating LNG venture.

December is likely to be stronger than November, potentially beating the previous record monthly high of 7.22mn t set in January 2020, after Gladstone set a new record for LNG exports. Shipments may further strengthen in January, with an empty tanker approaching Prelude this week potentially signalling that facility is preparing to load its first cargo since an electrical supply issue halted LNG production in February 2020.

Australia shipped a total of 71.57mn t of LNG from January-November 2020, up from 70.03mn t in the same period a year earlier, according to Australian Bureau of Statistics (ABS) data released on Thursday. The ABS does not release information on destination countries for LNG exports.

The average export price for Australia's LNG was \$267.57/t in November, up from \$222.75/t in October but down from \$418.90/t in November 2019. This was based on a US-Australian dollar exchange rate of \$0.7265.

Stronger Australian shipments over December-January will coincide with a strong rally in seaborne spot LNG prices. Australian LNG export prices have nearly tripled since late November to the highest level in more than five years, following increases in northeast Asian buying prices. *Argus* last assessed the Australian LNG export price at \$20.08/mn Btu fob Australia on 6 January, up from \$6.85/mn Btu on 30 November and from lows of below \$2/mn Btu in mid-2020. *By Jo Clarke*



SMALL-SCALE LNG

Small-scale LNG: Fot prices rise

Small-scale LNG spot prices for truck loadings across Europe rose, tracking gains at the region's gas hubs and with reduced supply availability supporting their premium to the Dutch TTF.

The Argus northwest Europe free-on-truck (fot) frontmonth price, now referring to February loadings, stood at &22.45/MWh on Thursday. Argus last assessed the January price at &20.85/MWh on 24 December. The Argus southwest France fot front-month price similarly rose to &23.70/MWhfrom &22.10/MWh.

Both prices tracked the increase in TTF near-curve contracts, which rose sharply on Thursday, reversing losses posted earlier in the week, while maintaining their respective premium to the corresponding contract at the Dutch hub. The northwest European fot-TTF differential stood at \leq 3.05/MWh, including truck-loading fees, and the corresponding southwest France differential was \leq 4.30/MWh – both unchanged from the previous assessment.

The premium small-scale distributors pay to divert volumes away from regasification and injection into the grid remained unchanged across the region despite market participants signalling a tighter supply-demand balance in the market. Supply availability has been tightening further in recent weeks as the influx of LNG to European terminals slowed significantly, with prices in northeast Asian markets rising to multi-year highs and drawing supply away from the Atlantic basin.

LNG deliveries across Europe fell sharply to just 6.08mn t last month from 9.34mn t a year earlier. Deliveries slowed more significantly in northwest Europe, which typically receives greater spot supply — the Zeebrugge terminal only received a single delivery in December, down from 11 a year earlier, with Gate receipts similarly falling to three from 11. Deliveries to Isle of Grain broadly halved to nine from 16.

Supply availability was particularly tight at Zeebrugge, where LNG inventories had fallen to as little as 55,300m³ at the beginning of this month, equivalent to just 14.5pc of capacity, although stocks have since been partially replenished. Combined LNG inventories at the 14.8mn t/yr Isle of Grain, 8.7mn t/yr Gate and 7.2mn t/yr Zeebrugge terminals stood at 1.30mn m³ on Wednesday morning, equivalent to approximately 63pc of the three terminals' aggregate capacity.

So far, supply shortages have not resulted in further upward pressure on small-scale prices, but suppliers have been

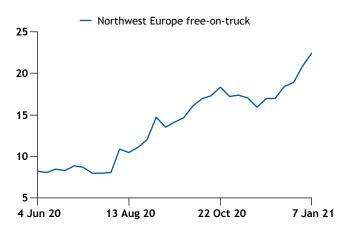
Small-scale LNG free on truck (fot) (7 Jan	2021)	
	February	+/- 31 Dec
Northwest Europe €/MWh	22.450	na
Northwest Europe \$/mn Btu	8.08	na
Marine gasoil equivalent (MGOe) \$/t	325.95	na
TTF to LNG small-scale differential northwest Europe €/ <i>MWh</i>	1.25	na
Truck loading cost northwest Europe €/MWh	1.80	nc
Southwest France €/MWh	23.700	na
Southwest France \$/mn Btu	8.53	na
Marine gasoil equivalent (MGOe) \$/t	344.11	na
TTF to LNG small-scale differential southwest France €/ <i>MWh</i>	2.30	na
Truck loading cost southwest France €/MWh	2.00	nc

LNG bunkering delivered on board (dob) (7 Jan 2021)

	Prompt	+/- 31 Dec
Northwest Europe €/MWh	28.475	+1.48
Northwest Europe \$/mn Btu	10.25	+0.59
Marine gasoil equivalent (MGOe) \$/t	413.43	+23.61
TTF balance of month to LNG bunker dob dif- ferential €/ <i>MWh</i>	9.13	-0.07
TTF front-month to LNG bunker dob differential €/MWh	9.08	na

Northwest Europe free-on-truck (fot)

€/MWh



offering fewer volumes on a spot basis in recent weeks even as truck-loading demand continues to rise across the region, though they have still been able to accommodate customers' requests for higher volumes, market participants said. Combined truck loadings at northwest European terminals hit a new record high for the third consecutive month in December.



NEWS

Northwest European truck loadings hit record high

LNG truck-loading demand in northwest Europe hit a record high in December for the third consecutive month.

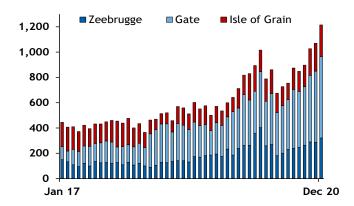
Aggregate truck-loading operations at the UK's Isle of Grain, the Netherlands' Gate and Belgium's Zeebrugge terminals rose to 1,215 last month from 894 a year earlier, and exceeding the previous record of 1,070 set a month earlier.

Both the Gate and Isle of Grain terminals reported a record number of truck loadings last month, while the 321 operations performed at Zeebrugge were down from 357 a year earlier although still the third-highest number on record. Gate and Zeebrugge truck-loading bays operated at about 48pc of peak capacity last month, while the utilisation rate at Isle of Grain was lower at around 23pc. The Gate terminal can offer up to 1,338 slots per month — including its third bay, which is only used as back-up — compared with 1,095 at Isle of Grain and 667 at Zeebrugge.

European small-scale LNG demand has risen steadily in recent months despite restrictive measures implemented across Europe to contain the spread of Covid-19, which have weighed heavily on economic activity. Aggregate truck-loadings at the three terminals totalled 10,753 in 2020, up from 7,831 a year earlier. Assuming an average cargo size of 20t, this would be equivalent to total demand rising to approximately 215,100t — the size of three large-scale cargoes — from 156,600t a year earlier.

Stronger use of LNG as a road fuel for heavy goods vehicles may have bolstered truck-loading demand, with the network of LNG refuelling stations widening further. There were 353 filling stations in operation in Europe at the end of December, up from 345 stations a month earlier and 239 at the end of 2019. New facilities started operations in Spain, Italy, Germany and Sweden over the past month. *By Antonio Peciccia*

Northwest European LNG truck-loadings



FueLNG receives Singapore's first bunkering vessel

The 7,500m³ *FueLNG Bellina* LNG bunkering vessel has been delivered to owner FueLNG, shipbuilder Keppel Offshore and Marine said today.

The vessel, which can bunker at a rate of up to 1,000 m³/ hr, is set to be Singapore's first LNG bunkering vessel, having been delivered at Keppel's Nantong shipyard in China.

 \mbox{FueLNG} – a joint venture between Keppel and Shell – had expected to receive the vessel by the end of 2020.

The new vessel will provide fuel for Shell-owned vessels as well as those owned by German shipping firm Hapag-Lloyd. Shell is also set to begin supplying UK-Australian resources firm BHP with LNG to fuel five iron ore carriers from 2022 for a period of five years.

FueLNG — as well as Singapore's Pavilion Gas — already has a licence to supply LNG for bunkering in Singapore, but the Maritime and Port Authority of Singapore (MPA) has launched a request for proposals for a further two licensees, which closed in mid-December. The MPA expects to announce any successful awards of the new licences by February.

The firm is also planning a 3,500m³ floating LNG storage facility to supply harbour craft and other small vessels, with operations slated for the end of this year. By Samuel Good

Gazprom LNG bunkering vessel delivery in 2H 2021

Russian state-controlled Gazprom has launched its 5,800m³ *Dmitry Mendeleev* LNG bunkering vessel, which is expected to join the firm's fleet in the second half of this year, subsidiary Gazpromneft said.

The *Dmitry Mendeleev* will carry out sea trials in the spring before operating at ports in the Gulf of Finland such as St Petersburg, Ust-Luga and Primorsk. Gazprom had originally expected delivery of the vessel by the end of last year.

The ship also has Arc4 ice classification, enabling it to operate "in one-year-old ice of up to 80cm thick independently", Gazpromneft said.

The vessel will be Russia's first LNG bunkering project, Gazpromneft said. But there are several other bunkering vessels operating in the Nordics and the Baltic Sea, including Finnish firm Gasum's 5,600m³ *Coralius*, and the 1,100m³ *Pioneer Knutsen*, operated by Shell. *By Ellie Holbrook*

REV supplies LNG for bunkering at Lake Ontario

US LNG supplier REV LNG completed its first truck-to-ship LNG bunkering operation at Port of Hamilton, on the Canadian side of Lake Ontario.





The 100,000USG of LNG fuel was supplied to the dual-fuel asphalt tanker Damia Desgagnes with 15,100t deadweight. The LNG was sourced from Towanda LNG liquefaction and storage facility in Pennsylvania, owned by Pivotal LNG, a subsidiary of Berkshire Hathaway Energy Gas Transmission and Storage in partnership with REV LNG. Port Hamilton is about 238 miles (383km) northwest of Towanda. In addition to bunkering, LNG from the Towanda facility is used for utility and industrial markets.

Petro-Nav, a subsidiary of Desgagnes, has expanded its LNG-fueled vessel fleet to five Canadian-flagged tankers, all operating in the Great Lakes, St Lawrence seaway system, eastern Canada, and the US as well as the Canadian Arctic, said Petro-Nav president Jacques Beauchamp. The other four vessels, in addition to Damia Desgagnes, are the chemical tankers: Mia Desgagnes, Gaia Desgagnes, Paul A Desgagnes and Rossi A Desgagnes. Desgagnes also sources LNG for bunkering from Gaz Metro, which has a liquefaction plant in Montreal. By Stefka Wechsler

LNG the best current bunker alternative: study

LNG is currently the most technically and commercially viable alternative to traditional bunker fuels, although there is no silver bullet to meet the IMO's 2030 and 2050 emissions targets, according to a study carried out by consultant Channoil and shipbroker EA Gibson.

The IMO's goals consist of a 40pc cut in carbon emissions in the maritime sector by 2030, from 2008 levels, and a reduction of at least 50pc by 2050.

From a commercial standpoint, the cost savings delivered by LNG - compared with 0.5pc sulphur fuel oil, or very lowsulphur fiel oil (VLSFO) - are already nearly enough to offset the additional \$14mn of investment required to equip a very large crude carrier (VLCC) with the dual-fuel technology needed to use LNG, the study said.

Based on current prices, a VLCC would save \$4,368/day by running on LNG instead of VLSFO, the study said. This is

slightly less than the cost saving of around \$5,000/d required to recoup investment in dual-fuel technology over a 15-year period, which is the typical length of time before a tanker of that size is considered too old to be chartered at full price. The small deficit could be closed by lower newbuilding costs and cheaper LNG prices as bunkering infrastructure improves and LNG freight rates decrease, the study said.

LNG could also become highly beneficial from a cost perspective if any of the proposed carbon levies on the shipping industry were to be enacted, because LNG emits 10-20pc less CO2 than VLSFO. The most advanced of these proposed levies - the EU's proposal to include greenhouse gas (GHG) emissions from ships of over 5,000 gross tonnes in its emissions trading system (EU ETS) by 1 January 2022 – would see a VLCC save \$6,420/d by running on LNG rather than VLSFO, the study estimates.

If trading firm Trafigura's suggestion to apply a carbon levy on emissions above a threshold based on the IMO's targets were to be realised, the study projects that VLCCs would save as much as \$21,460/d by using LNG rather than VLSFO.

The study also looked at the use of biofuels as alternative bunker fuels. But despite these being logistically viable, it concluded that the additional costs involved compared with VLSFO and LNG make them an unattractive option, even if shipping is added to the EU ETS.

If shipping is to reduce its carbon emissions by 50pc by 2050 and still grow as an industry, it will need to cut its average carbon intensity by 70pc, according to the study. But the CO2 savings delivered by LNG do not meet this goal on their own, and a number of lower-carbon options are also being explored, including methanol, ammonia and hydrogen, it said. But the study notes that the typical production methods for methanol and ammonia are carbon-intensive, and development would be needed in order to scale up "green" production. The supply chain for hydrogen, which is seen by many in the industry as a likely long-term bunker fuel solution, is currently much less developed than LNG, it said. By Will Collins





APPENDIX

Full methodology of oil-linked LNG prices available at *http://www.argusmedia.com/methodology-and-reference/*. A subset of the oil-linked LNG prices are published in the print edition of *Argus* LNG Daily. The full series is available electronically.

Oil-linked LNG on six-	month crude	e average (6	01) contrac	ct (6 Jan 20	21)					\$/mn Btu
Delivery	10рс	10.5рс	11рс	11.5pc	12рс	12.5pc	13рс	13.5pc	14рс	14.5pc
Feb	4.28	4.49	4.70	4.92	5.13	5.34	5.56	5.77	5.99	6.20
Mar	4.43	4.65	4.88	5.10	5.32	5.54	5.76	5.98	6.20	6.43
Apr	4.62	4.85	5.08	5.31	5.54	5.77	6.00	6.23	6.46	6.69
May	4.77	5.01	5.25	5.48	5.72	5.96	6.20	6.44	6.68	6.92
Jun	4.97	5.22	5.47	5.71	5.96	6.21	6.46	6.71	6.96	7.21
Jul	5.17	5.43	5.69	5.95	6.21	6.47	6.72	6.98	7.24	7.50
2Q21	4.79	5.03	5.27	5.50	5.74	5.98	6.22	6.46	6.70	6.94
3Q21	5.29	5.56	5.82	6.09	6.36	6.62	6.88	7.15	7.41	7.68
4Q21	5.33	5.60	5.86	6.13	6.40	6.66	6.93	7.20	7.46	7.73
1Q22	5.24	5.51	5.77	6.03	6.29	6.56	6.82	7.08	7.34	7.60
2022	5.15	5.41	5.67	5.92	6.18	6.44	6.70	6.95	7.21	7.47
2023	4.99	5.24	5.49	5.74	5.99	6.24	6.49	6.74	6.99	7.24

Oil-linked LNG on thre	ee-month cr	ude average	(301) cont	ract (6 Jan	2021)					\$/mn Btu
Delivery	10рс	10.5pc	11рс	11.5pc	12рс	12.5pc	13рс	13.5pc	14рс	14.5pc
Feb	4.25	4.46	4.68	4.89	5.10	5.31	5.53	5.74	5.95	6.16
Mar	4.52	4.75	4.97	5.20	5.43	5.65	5.88	6.10	6.33	6.56
Apr	4.95	5.19	5.44	5.69	5.94	6.18	6.43	6.68	6.93	7.17
May	5.29	5.55	5.82	6.08	6.34	6.61	6.87	7.14	7.40	7.67
Jun	5.42	5.69	5.96	6.23	6.50	6.77	7.04	7.31	7.58	7.85
Jul	5.40	5.67	5.94	6.21	6.48	6.75	7.02	7.29	7.56	7.83
2Q21	5.22	5.48	5.74	6.00	6.26	6.52	6.78	7.04	7.30	7.56
3Q21	5.37	5.64	5.91	6.18	6.45	6.72	6.98	7.25	7.52	7.79
4Q21	5.29	5.55	5.81	6.08	6.34	6.61	6.87	7.14	7.40	7.66
1Q22	5.20	5.46	5.72	5.98	6.24	6.50	6.76	7.02	7.28	7.54
2022	5.12	5.38	5.63	5.89	6.15	6.40	6.66	6.91	7.17	7.43
2023	4.98	5.23	5.48	5.72	5.97	6.22	6.47	6.72	6.97	7.22

Oil-linked LNG on thre	ee-month cr	ude average	with one r	month lag (3	11) contrad	ct (6 Jan 202	21)			\$/mn Btu
Delivery	10рс	10.5рс	11рс	11.5рс	12рс	12.5pc	13рс	13.5pc	14рс	14.5pc
Feb	4.29	4.50	4.71	4.93	5.14	5.36	5.57	5.78	6.00	6.21
Mar	4.25	4.46	4.68	4.89	5.10	5.31	5.53	5.74	5.95	6.16
Apr	4.52	4.75	4.97	5.20	5.43	5.65	5.88	6.10	6.33	6.56
May	4.95	5.19	5.44	5.69	5.94	6.18	6.43	6.68	6.93	7.17
Jun	5.29	5.55	5.82	6.08	6.34	6.61	6.87	7.14	7.40	7.67
Jul	5.42	5.69	5.96	6.23	6.50	6.77	7.04	7.31	7.58	7.85
2Q21	4.92	5.16	5.41	5.66	5.90	6.15	6.39	6.64	6.89	7.13
3Q21	5.40	5.67	5.94	6.21	6.48	6.75	7.01	7.28	7.55	7.82
4Q21	5.32	5.58	5.85	6.11	6.38	6.65	6.91	7.18	7.44	7.71
1Q22	5.23	5.49	5.75	6.01	6.27	6.54	6.80	7.06	7.32	7.58
2022	5.14	5.40	5.65	5.91	6.17	6.42	6.68	6.94	7.20	7.45
2023	4.99	5.24	5.48	5.73	5.98	6.23	6.48	6.73	6.98	7.23



Oil-linked LNG on previous-month crude average (101) contract (6 Jan 2021) \$/r										\$/mn Btu
Delivery	10рс	10.5pc	11рс	11.5pc	12рс	12.5pc	13рс	13.5pc	14рс	14.5рс
Feb	4.40	4.62	4.84	5.06	5.28	5.50	5.72	5.94	6.16	6.38
Mar	5.01	5.26	5.52	5.77	6.02	6.27	6.52	6.77	7.02	7.27
Apr	5.43	5.70	5.97	6.24	6.52	6.79	7.06	7.33	7.60	7.87
May	5.42	5.69	5.96	6.23	6.50	6.77	7.04	7.31	7.59	7.86
Jun	5.40	5.67	5.94	6.21	6.48	6.75	7.02	7.29	7.56	7.83
Jul	5.38	5.64	5.91	6.18	6.45	6.72	6.99	7.26	7.53	7.79
2Q21	5.42	5.69	5.96	6.23	6.50	6.77	7.04	7.31	7.58	7.85
3Q21	5.35	5.61	5.88	6.15	6.41	6.68	6.95	7.22	7.48	7.75
4Q21	5.26	5.52	5.78	6.04	6.31	6.57	6.83	7.10	7.36	7.62
1Q22	5.18	5.44	5.69	5.95	6.21	6.47	6.73	6.99	7.25	7.51
2022	5.10	5.36	5.61	5.87	6.12	6.38	6.64	6.89	7.14	7.40
2023	4.97	5.22	5.47	5.71	5.96	6.21	6.46	6.71	6.96	7.21

Crude oil forward prices											\$/bl	
	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022
Argus Calculated Japanese Crude Cocktail	56.690	54.870	54.570	54.250	53.930	53.610	53.290	52.980	52.680	52.400	52.170	51.990
Ice Brent (Singapore close)	54.73	54.58	54.38	54.10								

Months 13-24 available to LNG Daily data subscribers. Months 25-47 available to Asia Crude Oil Forward Curves subscribers.

JAPAN, KOREA AND TAIWAN LNG PRICES

Argus Japan, South Korea, Taiwan des spot LNG					\$/mn Btu
	Delivery	Bid	Offer	Mid	±
Japan, South Korea, Taiwan	1H Feb	23.67	24.10	23.885	+2.135
	2H Feb	16.78	17.95	17.365	+1.195
	1H Mar	12.33	13.83	13.080	+0.095
	2H Mar	8.83	10.17	9.500	-0.245



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Natural gas/LNG illuminating the markets

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