

☆RIM LNG INTELLIGENCE DAILY

★No.2482 Aug 28 2020

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--TOKYO, 17:00 JST Aug 28 2020<Assessment Closing Time>

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○Premium/discount to TTF in DES Europe to be indicated

Rim Intelligence will start assessment of the premium/ discount to TTF (ICE) futures market in DES Europe on Sep 1. For inquiries, please feel free to contact LNG team.

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© RECX-22 index

RECX-22 index for Friday was 67.97, down 0.57 points from the previous day

-----Introduction of Rim reports-----

Please access the URL below for a lineup of Rim reports. You can view sample reports as well as detailed explanations on the contents:

<https://eng.rim-intelligence.co.jp/first/report>

Lineup:

Bunker Oil	Crude/Condensate	Products
LPG	Petrochemicals	Polyolefins
LNG	Daily Data	Rim Data File

For inquiries on the above, please contact:

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◎Spot LNG Price Assessment (\$/mmBtu)						
ODES Japan (DJ)						
	Oct	Nov	Dec	Jan	Feb	Mar
	3.80	4.10	4.80	5.00	5.10	4.90
Daily Changes	0.00	0.00	0.00	0.00	0.00	0.00
	Apr	May	Jun	Jul	Aug	Sep
	4.80	4.70	4.80	4.90	5.00	4.95
Daily Changes	0.00	0.00	0.00	0.00	0.00	0.00

◎Northeast Asia (DES)						
	Oct 1H	Oct 2H	Nov 1H	RIM Index		
--NEA	3.65-3.85	3.75-3.95	3.95-4.25	3.90		
Daily Changes	0.00	0.00	0.00	0.00		
RIM Index Monthly Cumulative Avg		3.78				
*RIM Index is a daily average price of the three delivery periods of NEA.						
*RIM Index Monthly Cumulative Avg is a monthly cumulative average price of RIM Index.						
	Dec	Jan	Feb	Mar	Apr	May
--NEA Forward	4.65-4.95	4.85-5.15	4.95-5.25	4.75-5.05	4.65-4.95	4.55-4.85
Daily Changes	0.00	0.00	0.00	0.00	0.00	0.00
	Autumn	Winter				
--NEA Seasonal Index	4.23	5.00				
Daily Changes	0.00	0.00				
*NEA: Northeast Asia						

◎Others			
	Sep 2H	Oct 1H	Oct 2H
--Middle East (FOB)	3.15 - 3.45	3.15 - 3.45	3.25 - 3.55
Daily Changes	0.00	0.00	0.00
--Middle East (DES)	3.35 - 3.55	3.30 - 3.60	3.40 - 3.70
Daily Changes	0.00	0.00	0.00
--South Asia (DES)	3.50 - 3.70	3.50 - 3.70	3.55 - 3.85
Daily Changes	0.00	0.00	0.00
	Sep 1H	Sep 2H	Oct 1H
--Atlantic (FOB)	2.90 - 3.00	2.90 - 3.00	3.00 - 3.10
Daily Changes	0.00	0.00	0.00
--Europe (DES)	2.55 - 2.85	2.55 - 2.85	3.30 - 3.60
Premiums to NBP	-0.66 - -0.36	-0.66 - -0.36	-0.23 - 0.07
Daily Changes	0.00	0.00	0.00
--South America (DES)	3.25 - 3.45	3.25 - 3.45	3.35 - 3.55
Daily Changes	0.00	0.00	0.00

◎Freight			
	Freight Rates (\$/mmBtu)	VLSFO Bunker Prices (Aug 27) (\$/mt)	
--Middle East/Northeast Asia	0.59 - 0.64	--Tokyo	348.50
--Atlantic/Northeast Asia	1.00 - 1.05	--Singapore	345.50
--Middle East/Europe	0.46 - 0.51	--Rotterdam	313.50
	Daily Rates (\$)		
--Conventional Tankers	29,000 - 34,000		
--DFDE Tankers	43,500 - 48,500		
--TFDE Tankers	43,500 - 48,500		
--MEGI Tankers	51,500 - 56,500		
--X-DF Tankers	51,500 - 56,500		
Daily rates include all costs.			



*** Please visit <https://eng.rim-intelligence.co.jp/rpt/assessment/select/type/lng-en> to refer to the assessment methodology for the above price assessments.

◎Japan Crude Cocktail (JCC)								
	----- Expected -----					----- Result -----		
	Dec	Nov	Oct	Sep	Aug	Jul	Jun	May
JCC (bbl)	46.88	46.93	46.92	47.06	43.93	32.71	24.40	24.96
Daily Changes	-0.45	-0.44	-0.27	+0.67	0.00	0.00	0.00	-
JCC (mmBtu)	7.95	7.96	7.95	7.98	7.45	5.55	4.14	4.23

◎Natural Gas Futures Prices (\$/mmBtu)									
○NYMEX Henry Hub (Aug 27)					○ICE NBP (Aug 27)				
	Sep	Oct	Nov	Dec		Sep	Oct	Nov	Dec
Settle	2.579	2.710	2.943	3.216	Settle	3.215	3.525	4.604	5.126
Change	+0.118	+0.136	+0.118	+0.105	Change	-0.099	-0.141	-0.127	-0.184
High	2.598	2.715	2.951	3.229	High	3.413	3.733	4.744	5.260
Low	2.388	2.491	2.772	3.080	Low	3.198	3.502	4.583	5.114
Estimated Volume:	339,529				Estimated Volume:	29,660			

◎Petroleum Futures/Physical											
○NYMEX Petroleum Futures (Aug 27)					○Petroleum Physical (Aug 27)						
-WTI Futures (\$/mmBtu)					7.421	-Dubai Crude (\$/mmBtu)					7.711
					43.04						44.73
-Heating Oil (\$/mmBtu)					8.730	-Minas Crude (\$/mmBtu)					7.143
					121.07						42.00
○ICE Petroleum Futures (Aug 27)						-LSWR Indonesia (\$/mmBtu)					7.831
-Brent Futures (\$/mmBtu)					7.828						48.55
					45.09	-HSFO Singapore (\$/mmBtu)					6.952
-Gasoil Futures (\$/mmBtu)					8.525						278.00
					362.50	-LPG CFR Japan (\$/mmBtu)					7.857
						(Propane) (\$/mt)					374.00

◎Coal Prices and Electricity Prices											
○Coal Prices (Aug 27)					○Electricity Prices (Yen/kWh) (Aug 28)						
-FOB New Castle-Global Coal (\$/mmBtu)					2.177	-JEPX 24h					13.98
					49.80	-JEPX Daytime					20.02
-ICE Futures FOB Richards Bay (\$/mmBtu)					2.410	-JEPX Peaktime					23.56
					55.15						

◎LNG Benchmark						
	Jul-20	Jun-20	May-20	Apr-20	Mar-20	Feb-20
-JLC Japan LNG Cocktail (\$/mmBtu)	7.275	8.404	9.464	9.321	9.538	9.328
	376.86	435.33	490.22	482.81	494.05	483.19
-Asia CIF Cocktail (\$/mmBtu)	-	-	-	-	-	-
	-	-	-	-	-	-
-US Import Price Avg (\$/mmBtu)	-	-	-	-	-	-
-US Export Price Avg (\$/mmBtu)	-	-	-	-	-	-

◎Transactions
○ Recent Spot Transactions

Reported date	Dealt Date	Origin	Seller	Buyer	Price	FOB/DES	Volume (cargoes)	Timing	Destination
Aug 28	Aug 19	T.B.R.	T.B.R.	EDP	TTF discount	DES	1	Oct 11-20	Portugal
Aug 28	5th week of Aug	①Ichthys ②T.B.R.	①Chevron ②Trafigura	KOGAS	T.B.R.	DES	2	Sep	S.Korea
Aug 28	mid 5th week of Aug	Oman LNG	Oman LNG	T.B.R.	high \$3's	DES	1	early Oct (loading)	NEA
Aug 27	Aug 4	T.B.R.	①POSCO ②Socar	Pakistan LNG	①Brent x7.9673% ②Brent x6.9511%	DES	2	①Sep 12-13 ②Sep 25-26	Pakistan
Aug 26	late Aug	T.B.R.	T.B.R.	Prism Energy	T.B.R.	DES	1	Oct	S.Korea
Aug 26	late Aug	T.B.R.	T.B.R.	POSCO and S Oil	high \$3's or low \$4's	DES	1	Oct 2-4	S.Korea
Aug 25	4th week of Aug	T.B.R.	Woodside	S.Korean end-user	T.B.R.	DES	1	H1 Oct	S.Korea
Aug 24	Aug 20	Yamal	Novatek	T.B.R.	ard \$4.00	DES	1	Oct 1-10	NEA
Aug 24	Aug 20	T.B.R.	T.B.R.	chinese end user	low \$4.00	DES	1	Oct 1-10	China
Aug 24	1H Aug	T.B.R.	Total	ENN	T.B.R.	DES	1	Sep	China
Aug 24	Aug 12	T.B.R.	①Total ②③cheniere	IEASA	①\$3.13 ②H.H.+\$1.00 ③H.H.+\$1.30	DES	3 (partials)	①Sep 5, ②Sep 11, ③Sep 18	Aegentina
Aug 24	Aug 11	T.B.R.	T.B.R.	GAIL	swap	DES	12	Jan-Dec 2021 or 2022	India
Aug 24	Aug 11	Sabine Pass	GAIL	T.B.R.	swap	FOB	12	Jan-Dec 2021 or 2022	T.B.R.
Aug 21	Aug 19	Corpus Chiristi	Pertamina	T.B.R.	H.H. x115% +1-10cts	FOB	2	Oct 14, Oct 19	T.B.R.
Aug 21	mid Aug	T.B.R.	JERAGM	European trader	T.B.R.	DES	1	Oct	China
Aug 21	3rd week of Aug	T.B.R.	Japanese trader	Chinese end-user	\$3.90's	DES	1	end Sep	China
Aug 21	mid Aug	T.B.R.	Japanese trader	Chinese end-user	T.B.R.	FOB	1	H1 Oct (delivery)	China

○ Recent Term Transactions

Reported date	Origin	Seller	Buyer	Price	FOB/DES	Volume	Start	Duration
Jul 14	DGI portfolio	DGI	Guangdong Energy	NEA - 15-20cts	DES	4 crgs/yr	Jul or Oct-Dec 2020	4 yrs
Jul 8	T.B.R.	Chevron	CPC	Brent x 10.00-10.99%	DES	12 crgs /yr	2022	10 yrs
Jul 7	Snohvit	Equinor	Pavilion	T.B.R.	FOB	T.B.R.	T.B.R.	T.B.R.
Jul 1	Corpus Chiristi	T.B.R.	Pavilion	T.B.R.	FOB	0.76 mil mt/year	T.B.R.	T.B.R.
Jun 11	Australia and Shell portfolio	Shell	Uniper	Brent x 11%	DES	4 crgs/yr	2021	5 yrs (with 5 yr extension option)
Jun 11	T.B.R.	T.B.R.	POSCO	Brent x 10.8-10.9% + 50-60 cts	T.B.R.	T.B.R.	2024	10 yrs
Jun 10	T.B.R.	Total	Botas	T.B.R.	T.B.R.	1.20 mil mt/yr	late 2020	3 yrs
May 29	T.B.R.	T.B.R.	T.B.R.	Brent + H.H mixed prices	T.B.R.	T.B.R.	T.B.R.	a few yrs
Mar 13	T.B.R.	T.B.R.	Petronet LNG	0.727 x H.H. + 0.152 x TTF + alpha	T.B.R.	1.00 mil mt/yr	2024 or 2025	10 yrs

○Recent Tenders

Reported date	Issuer	Close	Buy/Sell	FOB/DES	Timing	Price(\$)	Origin	Winner
Aug 28	Pertamina	Sep 2	Sell	FOB	Nov 16, Dec 13	T.B.R.	Corpus Chiristi	T.B.R.



Aug 27	Pakistan LNG	Sep 1	Buy	DES	Sep 22-23	T.B.R.	T.B.R.	T.B.R.
Aug 26	Sakhalin Energy	Aug 27	Sell	FOB/DES	Oct 13 (loading)	T.B.R.	Sakhalin2	T.B.R.
Aug 25	Pakistan LNG	Sep 24	Buy	DES	Oct 12-13, Oct 19-20 x 1	T.B.R.	T.B.R.	T.B.R.
Aug 25	KOMIPO	Aug 31	Buy	DES	Oct 14-17	T.B.R.	T.B.R.	T.B.R.
Aug 24	GAIL	Aug 24	Sell	FOB	Oct 28-29	T.B.R.	Sabine Pass	not awarded
Aug 20	Novatek	Aug 20	Sell	DES	Oct 1-10	ard \$4.00	Yamal	T.B.R.
Aug 19	CPC	Aug 20	Buy	DES	early Oct, early Nov, early Dec x1	T.B.R.	T.B.R.	T.B.R.
Aug 19	Pertamina	Aug 19	Sell	FOB	Oct 14, Oct 19	H.H. x115% +1-10cts	Corpus Christi	T.B.R.
Aug 18	KUFPEC	Aug 19	Sell	FOB	Oct 6-10	high \$3.90's-4.00	Wheatstone	Chevron
Aug 18	Sakhalin Energy	Aug 19	Sell	FOB/DES	Sep 28 (loading)	\$4.10-4.20	Sakhalin 2	T.B.R.
Aug 18	EDP	Aug 19	Buy	DES	Oct 11-20	TTF discount	T.B.R.	T.B.R.
Aug 18	RPGCL	Aug 17	Buy	DES	Sep 15-20	T.B.R.	T.B.R.	T.B.R.
Aug 18	CFE	Aug 20	Buy	DES	Sep 1-2, Sep 13-14 x1	T.B.R.	T.B.R.	T.B.R.
Aug 17	APLNG	Aug 19	Sell	FOB	Nov 2-3, Dec 15-16, Dec 28-29 x1	NEA premium	APLNG	T.B.R.
Aug 14	Kansai Elec	Aug 12	Buy	DES	Sep 21-23	\$3.70	T.B.R.	producer
Aug 13	GNL	Sep 17	Buy	DES	Oct 28-29	T.B.R.	T.B.R.	T.B.R.
Aug 12	Sakhalin Energy	Aug 13	Sell	FOB/DES	Sep 22 (loading)	\$4.00-4.10	Sakhalin 2	equity holder of Sakhalin 2
Aug 12	IEASA	Aug 12	Buy	DES	①Sep 5, ②Sep 11, ③ Sep 18 (each partial cargoes)	①\$3.13 ②H.H.+\$1.00 ③H.H.+\$1.30	T.B.R.	①Total ②③Cheniere
Aug 12	Angola LNG	Aug 12	Sell	DES	Sep 10-30	T.B.R.	Angola	T.B.R.
Aug 11	Novatek	Aug 7	Sell	DES	Sep 1-Dec 31 x4	TTF +20cts (Sep)	Yamal	T.B.R.
Aug 7	Shenzhen Energy	Aug 7	Buy	DES	Sep 20-30	\$3.30-3.40	T.B.R.	T.B.R.
Aug 7	Ichthys LNG	Aug 12	Sell	FOB/DES	Sep 7-11 (loading)	T.B.R.	Ichthys	T.B.R.
Aug 7	RIL	Aug 7	Buy	FOB/DES	①Oct 11-15, ②Nov 5-9	①NEA -20cts ②NEA -45cts	T.B.R.	T.B.R.
Aug 7	IOC	Aug 11	Buy	DES	Sep 29	\$3.43	T.B.R.	T.B.R.
Aug 6	JAPEX	Aug 6	Buy	DES	Sep 8-17	\$3.25-3.30's	T.B.R.	Swiss trader
Aug 6	Tohoku Elec	Aug 6	Buy	DES	Sep 23-Oct 2, Sep	ard \$3.20	T.B.R.	novatek
Aug 6	Nippon Steel	Aug 5	Buy	DES	Sep 14-28	\$3.05-3.15	T.B.R.	DGI
Aug 6	PNG LNG	Aug 4	Sell	DES	Aug 30 (loading)	ard \$3.10	PNG LNG	BP
Aug 6	Petronas	Aug 5	Sell	DES	mid Oct	mid \$3's	Gladstone	T.B.R.
Aug 6	Petronas	Aug 5	Sell	FOB	Sep 13 (loading)	\$2.90	Gladstone	T.B.R.
Aug 4	Pakistan LNG	Aug 5	Buy	DES	Aug 15-16	Brent x 9.3421%	T.B.R.	PCI
Aug 4	Sakhalin Energy	Aug 5	Sell	FOB/DES	Sep 14 (loading)	\$3.10-3.15	Sakhalin 2	T.B.R.
Aug 4	Angola LNG	Aug 5	Sell	DES	Aug 12 (loading)	T.B.R.	Angola	T.B.R.
Jul 31	RIL	Jul 30	Buy	DES	Sep 26-28	\$2.60-2.70	T.B.R.	T.B.R.
Jul 30	Darwin LNG	Aug 3	Sell	FOB	Aug, Sep x1	low-mid \$2's	Darwin	German Energy Company
Jul 30	Hokkaido Elec	Jul 28	Buy	DES	Sep 16-23	\$2.70-2.80	T.B.R.	T.B.R.
Jul 30	GNL	Aug 4	Buy	DES	Jan 25-Feb 15, Mar 1-21, Apr 3-23, May 5-25, Jun 5-25 x1	T.B.R.	T.B.R.	T.B.R.
Jul 29	GSPC	Jul 30	Buy	DES	①Oct 16-31 ②Nov 1-15, Dec 1-15	NEA -ard 15cts (Nov or Dec), NEA -35 - 40cts (Nov or Dec)	T.B.R.	①not awarded ②T.B.R.
Jul 29	BPCL	Jul 29	Buy	DES	Sep 11	\$2.55-2.60	T.B.R.	T.B.R.
Jul 29	Pertamina	Jul 29	Sell	FOB	Aug 22-24, Sep 16-19, Oct 1-6 or Oct 10-11	T.B.R.	Bontang	T.B.R.
Jul 29	Sakhalin Energy	Jul 29	Sell	FOB/DES	Aug 30 (loading)	\$2.65-2.70	Sakhalin 2	Shell
Jul 29	PNG LNG	Jul 29	Sell	FOB/DES	Aug 27 (loading)	\$2.75	PNG LNG	BP
Jul 28	Angola LNG	Jul 23	Sell	DES	Aug 16-31	T.B.R.	Angola	T.B.R.
Jul 27	Sinopec	Jul 24	Buy	DES	2023-2032 (1.00 mil mt/yr)	T.B.R.	T.B.R.	T.B.R.

○ Recent Shipping Transactions

Reported date	Vessel Name	charterer	counter party	Type	Price	Start	Duration
Aug 28	na	KOGAS	na	na	na	H2 Sep	one voyage
Aug 21	na	Guangdong Energy	Petronas	na	na	na	na
Aug 18	Wilpride	na	Awilco	D	high \$30k's	Autumn	1-2 voyages
Aug 17	Saga Dawn	JOVO	na	na	na	na	1 year
Aug 14	Neptune	Total	na	D	na	na	na
Aug 13	Bahrain Spirit	na	Bahrain LNG	MEGI	na	Aug	na
Aug 12	na	CNOOC	na	T or D	ard \$60k	Autumn	long term
Aug 11	BW Pavillion Aranthara	Pavillion Energy	BW Maritime	MEGI	na	Aug	long term
Aug 7	Sevilla Knutsuen	Shell	na	D	na	na	long term
Aug 6	Seri Ayu	JOVO	na	S	na	mid Aug	one voyage
Jul 29	na	IOC	na	T	low \$60k's	Sep	3 months

***Types of tankers are indicated as C= Conventional, D = DFDE, T = TFDE, X=X-DF

○ Projects/Receiving terminals Latest Information

Report Date	Project	Train No	Country	Start	Period	Remark
Aug 28	Corpus Christi	na	US	late Aug	na	Shipment restarted.
Aug 27	Bintulu	na	Malaysia	late Aug	na	Upstream facility trouble.
Aug 26	Gulf of Mexico	na	US	late Aug	na	Tankers are away from Gulf of Mexico due to the approach of hurricane. Shipment is stopping from Sep 23.
Aug 24	Gorgon	T1-3	Australia	Jul	na	Maintenance of T1 will start in early Oct for 30-45 days and T3 will start in Jan 2021. Maintenance of T2 will be finished on Sep 12.
Aug 24	Corpus Christi	na	US	Aug 21	na	There was an explosion of gas pipeline at Corpus Christi project.
Aug 21	Zhuhai and Dapeng terminals	na	China	Aug	na	The intake of one or two cargoes might be delayed or cancelled due to Typhoon No.7.
Aug 20	Gorgon	1~3	Australia	Jul	na	Chevron will submit report on a progress of the maintenance to authority on 21 Oct
Aug 19	Gorgon	2	Australia	Jul	na	Maintenance of T2 might not end by Sep 12.

*** The information found during the day is highlighted in red in both Spot and Term transactions.

◎ MARKET COMMENTARY
ODES Japan
Contracts unchanged at DES Northeast Asia market level

The contracts for October and November on the Japan OTC Exchange (JOE) on Friday were unchanged from a day before at \$3.80 and \$4.10,

respectively, along with the DES Northeast Asia market. On the other hand, the JOE market is closed from Apr 8 due to the declaration of a state of emergency by the Japanese government.

ONE Asia
Market lack directions; KOGAS buys 2 cargoes for Sep delivery

DES Northeast Asia prices held steady at \$3.65-3.85 for first-half October delivery, \$3.75-3.95 for second-half October delivery and \$3.95-4.25 for first-half November delivery. With both bullish and

bearish factors seen, the market lacked clear directions. Supply from the 16.50 mil mt/year Gorgon project in Australia would likely be below normal for the time being and supply from the US was temporarily halted due to hurricanes hitting the US Gulf Coast. Supply was therefore tight in some

areas. On the other hand, production was likely to decrease only slightly at the 28.00 mil mt/year Bintulu project in Malaysia where problems had occurred at production facilities. Moreover, LNG production was not affected by an explosion that had occurred at the 4.50 mil mt/year US Corpus Christi project and shipments had restarted. As demand for power generation was reduced due to a long of rain, Korea Gas Corporation (KOGAS) had refrained from spot purchase but apparently bought two cargoes for September delivery this week. It was unclear if KOGAS would procure cargoes for October delivery. A European trader said that Japanese and Korean end-users were checking stock levels before the winter season. In Japan, the weather was searing hot since August but LNG stocks were not low in view of a prolonged rainy season. As a result, spot demand from Japanese end-user towards winter was unlikely to rise sharply.

Omani cargo traded in high \$3s for mid-Oct delivery

For delivery to Northeast Asia, Oman LNG sold one cargo loading early October from the 10.50 mil mt/year Oman project in the middle of the week. While the buyer was unknown, the price was reportedly in the high \$3' s. Sources had expected Oman LNG to sell the cargo via a tender but eventually, it was sold through private negotiations. On the other hand, KOGAS bought two cargoes for September delivery. The sellers were US Chevron and European trader Trafigura. Chevron would supply a cargo from the 8.40 mil mt/year Ichthys

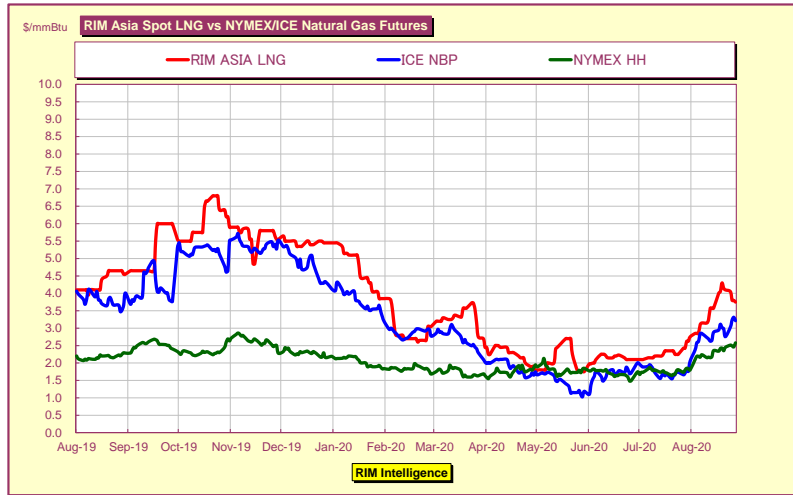
project in Australia. Chevron was awarded the cargo in a sell tender conducted by Ichthys LNG in July for end-July loading but the destination had not been decided. Apart from this, a Japanese trader was moving to sell a cargo loading early October from the 8.90 mil mt/year Wheatstone project in Australia.

Impact of Bintulu facility problem on production and supply minimal

At the 28.00 mil mt/year Bintulu project in Malaysia, it was found that troubles had occurred by early August at upstream facilities including gas fields. But the impact on production and supply was minimal. A western Japan power company taking long-term cargoes from Malaysian state-owned Petronas did not receive requests to delay or cancel supply. There were apparently no changes to the intake of long-term cargoes.

Forward market unrevised; Chinese players cautious to buy at fixed prices

The market for December to May 2021 delivery was left unrevised form a day before. Prices for December delivery stood at \$4.65-4.95. A Chinese independent company having demand for January to February delivery cargoes skipped buying at fixed prices at present and was considering to purchase at prices linked to the DES Northeast Asia market. The company forecast that the results of the US Presidential Election might have an impact on supply/demand fundamentals and market trend of LNG to some degree, adding that it was too risky to buy forward cargoes at fixed prices at the moment.



South Asia

Market stable; buying interest from India not seen

DES South Asia prices were stable at \$3.50-3.70 for second-half September delivery, \$3.50-3.70 for first-half October delivery and \$3.55-3.85 for second-half October delivery. Pakistan was conducting a buy tender but buying interest from Indian end-users was not observed and talks were thin. Both buyers and sellers took a wait-and-see stance and the market showed no movements. The 5.00 mil mt/year Dabhol terminal in India would

resume cargo intake in late September. The 165,000cbm TFDE tanker “Energy Glory” which loaded a cargo on Aug 22 from the 5.25 mil mt/year US Cove Point project was sailing towards the Dabhol terminal and expected to arrive on Sep 27. Due to a lack of breakwater facilities, the Dabhol terminal stops receiving cargoes during the monsoon season. In 2019, operations resumed on Sep 26.

Middle East

Supply room seen from Qatar and Oman

FOB Middle East prices held steady at \$3.15-3.45 for second-half September and first-half October loading and \$3.25-3.55 for second-half October loading. In addition to Qatargas, supply room was seen from Oman but as there was alternative demand to replace supply from the Gorgon project in Australia and supply from the US was reduced, supply/demand fundamentals were not as weak as in April to May. Nevertheless, Qatargas seemed to be showing selling interest for cargoes loading end-September onwards to several portfolio players as demand from major customers such as Indian state-owned Petronet which was taking 8.50 mil mt/year was slow to recover.

DES Middle East: Movements on spot buying limited

DES Middle East prices posted no change from a day earlier at \$3.35-3.55 for second-half September delivery, \$3.30-3.60 for first-half October delivery and \$3.40-3.70 for second-half October delivery. Movements on spot buying was limited. Although Dubai Supply Authority (DUSUP) and Emirates National Oil Co (ENOC) were intermittently moving to buy spot cargoes, these players were not in a rush as ample cargoes were available from Qatar and Oman. National Electric Power Co (NEPCO) of Jordan took a Qatari cargo on Monday transported by the 145,000 cbm conventional tanker “Ejjan” .

○Atlantic Region**GAIL likely cancels sell tender for ex-Sabine Pass**

FOB Atlantic prices were left unrevised from a day earlier at \$2.90-3.00 for first-half as well as second-half September loading and at \$3.00-3.10 for first-half October loading on Friday, capped by perceptions that the impact on ex-US LNG supply from hurricanes in the Gulf of Mexico and troubles at the Corpus Christi project was marginal. There were views that Hurricane Laura caused delays of some liftings but had yet to create any substitute demand. Some sources also believed that tides along the Sabine Pass project were not as high as earlier expectations in the end. Under such circumstances, India's GAIL was said to have canceled a sell tender closed on Monday for one cargo loading at the Sabine Pass project on Oct 2 although the reason for the cancellation was not known. For talks over forward loading, Indonesia's Pertamina offered two cargoes loading at the Corpus Christi project on Nov 16 and Dec 13 via a tender closing on Sep 2. The company sold two cargoes loading on Oct 14 and Oct 19 at the same

project via a tender closed on Aug 19. The cargoes were awarded at a premium of 1-10cts to 115% of US Henry Hub natural gas futures quotations.

Corpus Christi resume shipments; impact of explosion minimal

US Cheniere, the operator of the 4.50 mil mt/year Corpus Christi project restarted LNG shipments. An explosion had occurred on Aug 21 at a complex of oil and LNG production facilities at Corpus Christi Bay where the project is also located. The canal facing the complex was closed for five days and LNG shipments were temporarily restricted but the canal reopened on Monday. At the Corpus Christi project, the 177,000cbm DFDE tanker "Sohshu Maru", which is on long-term charter by JERA and sublet to a third party, began loading on Friday. On the other hand, the gas pipeline at which the explosion had occurred was seen to transport gas to a refiner within the complex and run rates at Corpus Christi refinery was likely reduced.

○Europe**Market unchanged; EDP buy tender awarded at discount to TTF**

DES Europe prices were unchanged at \$2.55-2.85 for first-half and second-half September delivery and \$3.30-3.60 for first-half October delivery. With stocks remaining high, few players were actively buying cargoes. Only demand was sporadically seen from Southern Europe. As no troubles were observed in gas fields in Norway and Russia, demand was mostly fulfilled with pipeline gas and LNG term cargoes.

Portuguese power company EDP reportedly awarded its buy tender closed on Aug 19 for a cargo for Oct 11-20 delivery to the Sines terminal at a discount to the Netherlands' TTF market. In Europe this month, the weather was extremely hot and demand for air-conditioning increased. In Lisbon, the capital of Portugal, the daily highest temperature at the end of July to early August was close to 35 degrees Celsius, higher than previous years by about 10 degrees Celsius.

Tokyo Gas resells US cargo to Europe

Tokyo Gas was moving to resell a long-term cargo from the 5.25 mil mt/year US Cove Point project to the Atlantic such as Europe. Tokyo Gas reportedly judged that US cargoes were relatively expensive to receive in Northeast Asia. Tokyo Gas already had three vessels loaded with cargoes waiting off the coast of Europe. With inventories of many terminals high in Europe, it was said to be taking a long time for deals to be done. A trader reckoned that Tokyo Gas might be delaying the arrival timing as the market was in contango. The company was believed to have previously resold Cove Point cargoes to Europe. In July, the 165,000cbm TFDE tanker "Energy Universe" discharged a Cove Point cargo at the 8.61 mil mt/year Cartagena terminal in Spain while the 165,000cbm TFDE tanker "Energy Liberty" discharged a Cove Point cargo at the 8.80 mil mt/year Gate terminal in the Netherlands. Both

vessels are owned by Tokyo Gas. One trader perceived that Britain's Centrica was conducting sale negotiations on behalf of Tokyo Gas for sales to Europe. Both companies had signed an agreement

of cooperation in 2016. Based on the agreement, Tokyo Gas would exchange cargoes procured from the US with cargoes that Centrica purchased in Asia Pacific.

○South America

Strong wait-and-see stance brings no change in prices

DES South America prices were unchanged from the previous day at \$3.25-3.45 for first-half as well as second-half September delivery and at \$3.35-3.55 for first-half October delivery on Friday. Sources saw a

lack of price moves on a DES South America basis amid persistent uncertainty over ex-US supply. Sources saw no sign of new demand emerging for September delivery in particular since regional end-users already covered demand for the timing.

○Freight Market

Intact with bullish and bearish factors seen

For short term charter of less than three months, daily rates stayed intact at \$29,000-34,000 for conventional tankers, \$43,500-48,500 for DFDE and TFDE tankers and \$51,500-56,500 for MEGI and X-DF tankers. Sentiment was bullish towards winter but owing to hurricanes in the US, some sources felt that the freight market might soften. Both bullish and bearish factors were seen. While chartering demand was observed, some vessels were also available. At the moment, 20 vessels were available in Asia Pacific and about 7 vessels in the Atlantic. Moreover, some fixtures were not concluded as the timing required by charterers and players holding vessels did not match. As many shipowners were hoping to charter out for three months or more including winter, few vessels were available for a short period such as for one voyage. Further, price ideas between charterers and players with vessels were wide apart. Players with vessels took a bullish

stance considering the high demand winter season. The price spread with charterers apparently widened to about \$10,000.

KOGAS charters in tanker for Sabine Pass cargo

Korea Gas Corp (KOGAS) chartered in a tanker to transport a cargo from the 22.50 mil mt/year Sabine Pass project in the US. The charter was for one voyage for a second-half September loading cargo. KOGAS is buying 3.50 mil mt/year of ex-Sabine Pass cargoes on an FOB basis via a long-term contract and reselling some of these cargoes. KOGAS often brings the remaining cargoes to the 42.60 mil mt/year Incheon terminal in South Korea by the 145,000 cbm conventional tanker "Hyundai Ecopia" and the 174,000 cbm TFDE tanker "Hyundai Princepia". But this time the company was said to have chartered in a tanker on a spot basis as the operation schedules of these tankers did not match the loading date of the cargo.

○Japan Domestic Natural Gas Market

West Japan-based gas company takes LNG from multiple terminals

One city gas company conducting city gas business in West Japan receives LNG by trucks at its satellite station from multiple LNG import terminals located along the Setouchi Sea. It then regasifies and sells city gas to local consumers. A

spokesman at the company said that it had no plans to raise its gas sales by spreading out its pipeline network although it would be possible for the company to do so by building a large-scale pipeline network connecting with surrounding communities.

○NYMEX/ICE Natural Gas Future Market Commentary (Aug 27)

NYMEX H.H. September gas gains with low gas production

The September natural gas contract on NYMEX closed at \$2.579 per million British thermal units (mmBtu) on Thursday, up 11.8cts from the previous day. Natural gas production declined to the lowest level since May since hurricane "Laura" approached. According to the US Energy Information Administration (EIA), inventories as of Aug 21 were at 3.420 trillion cubic feet (tcf), up 45 bil cubic feet (bcf) from a week earlier.

The September natural gas contract of NBP on ICE in London settled at \$3.215, down 9.9cts from

the previous day, since gas flow from Norway increased and operation of wind power generation rose. Meanwhile, according to the latest data provided by British multinational electricity and gas utility National Grid plc, the physical price for gas delivered on Wednesday, Aug 26, correlated to \$3.397, up 18.7cts from the previous day.

In NYMEX ACCESS TRADE, the front-month October natural gas contract as of 9:00am local time on Friday was trading at \$2.690/mmBtu, down 2.0cts from the close on Thursday.

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○Japan July LNG imports up 14.7% from previous month (details): MOF

Imports of liquefied natural gas (LNG) by Japan in July reached 6.04 mil metric tons (mt), up 14.7% from the previous month, according to import data released by Japan's Ministry of Finance (MOF). The Kawasaki terminal pulled in the largest volume in July receiving a total of 841,229mt followed by Kisarazu with 736,292mt and Nagoya at 659,734mt.

Port	Country	Jul 2020			Jan-Jul 2020		
		Volume	Amount (1,000 yen)	Unit Price (1,000 yen)	Volume	Amount (1,000 yen)	Unit Price (1,000 yen)
Ishikari	Malaysia	-	-	-	114,652	6,324,146	55.159
	Brunei	-	-	-	68,240	2,899,451	42.489
	Russia	63,723	988,438	15.511	386,632	16,062,652	41.545
	Australia	59,733	3,580,433	59.941	187,398	9,742,767	51.990
	Total	123,456	4,568,871	37.008	756,922	35,029,016	46.278
Hachinohe	Malaysia	-	-	-	56,160	3,378,402	60.157
	Australia	68,463	2,495,258	36.447	136,659	6,774,967	49.576
	Total	68,463	2,495,258	36.447	192,819	10,153,369	52.658
Sendaishiogama	Malaysia	7,979	378,782	47.472	335,010	15,003,977	44.787
	Qatar	63,516	695,623	10.952	155,356	6,030,482	38.817
	Russia	-	-	-	64,694	3,747,586	57.928
	Nigeria	61,035	777,260	12.735	61,035	777,260	12.735
	Total	132,530	1,851,665	13.972	616,095	25,559,305	41.486
Sooma	Malaysia	56,273	1,865,387	33.149	344,925	16,413,986	47.587
Hitachi	Malaysia	-	-	-	167,149	8,697,931	52.037
	Qatar	-	-	-	118,484	6,014,983	50.766
	Russia	-	-	-	128,592	8,460,754	65.795
	Australia	62,823	2,312,226	36.805	305,345	16,014,389	52.447
	Total	62,823	2,312,226	36.805	719,570	39,188,057	54.460
Chiba	Malaysia	55,734	2,123,939	38.108	233,099	10,137,914	43.492
	Brunei	136,008	5,367,524	39.465	1,573,060	86,789,467	55.172

	Qatar	-	-	-	725,577	39,140,723	53.944
	Russia	-	-	-	64,618	3,531,139	54.646
	Australia	406,000	18,131,873	44.660	1,745,020	91,420,701	52.389
	Total	597,742	25,623,336	42.867	4,341,374	231,019,944	53.214
Kisarazu	Malaysia	123,409	5,140,803	41.657	625,098	28,979,707	46.360
	Brunei	-	-	-	64,222	3,700,190	57.616
	Qatar	226,435	8,333,718	36.804	1,182,880	61,527,172	52.015
	Oman	-	-	-	57,993	3,314,009	57.145
	Abu Dhabi	58,791	1,320,287	22.457	237,479	9,313,412	39.218
	Russia	-	-	-	129,080	6,654,991	51.557
	US	60,923	2,876,789	47.220	265,084	13,719,303	51.755
	Nigeria	55,322	3,167,659	57.259	195,016	10,607,022	54.391
	Australia	211,412	8,725,946	41.275	1,664,550	85,246,874	51.213
	Papua New Guinea	-	-	-	497,439	25,306,821	50.874
	Total	736,292	29,565,202	40.154	4,918,841	248,369,501	50.494
Yokohama	Malaysia	-	-	-	357,104	18,215,244	51.008
	Qatar	47,972	1,703,167	35.503	379,814	19,948,500	52.522
	Russia	-	-	-	64,628	3,671,455	56.809
	US	-	-	-	68,527	3,553,823	51.860
	Australia	74,840	3,419,338	45.689	752,866	41,861,180	55.602
	Total	122,812	5,122,505	41.710	1,622,939	87,250,202	53.761
Kawasaki	Malaysia	120,823	4,423,286	36.610	480,548	19,825,150	41.255
	Brunei	-	-	-	64,674	3,527,646	54.545
	Indonesia	-	-	-	110,984	6,536,115	58.892
	Qatar	-	-	-	291,636	15,470,059	53.046
	Oman	62,199	3,019,473	48.545	124,744	6,774,158	54.304
	Abu Dhabi	-	-	-	552,031	25,612,875	46.398
	Russia	69,547	3,299,531	47.443	493,193	25,781,827	52.275
	US	65,109	3,352,771	51.495	535,937	26,517,077	49.478
	Peru	-	-	-	70,733	4,253,475	60.134
	Nigeria	-	-	-	129,840	7,078,460	54.517
	Australia	452,627	17,936,265	39.627	2,987,763	157,513,139	52.719
	Papua New Guinea	70,924	1,878,274	26.483	360,796	17,962,754	49.786
	Total	841,229	33,909,600	40.310	6,202,879	316,852,735	51.082
Niigata	Malaysia	124,384	3,114,841	25.042	421,083	17,127,611	40.675
	Brunei	64,606	691,717	10.707	125,179	1,301,360	10.396
	Qatar	-	-	-	238,068	12,904,875	54.207
	Russia	65,041	2,274,011	34.963	385,789	16,301,293	42.254
	US	69,237	3,054,975	44.123	69,237	3,054,975	44.123
	Nigeria	-	-	-	283,580	8,610,925	30.365
	Australia	-	-	-	405,610	19,176,231	47.278
	Total	323,268	9,135,544	28.260	1,928,546	78,477,270	40.692
Naoetsu	Malaysia	-	-	-	123,569	5,109,290	41.348
	Qatar	59,399	2,818,906	47.457	118,955	5,657,622	47.561
	Russia	64,925	3,104,350	47.814	194,746	10,129,532	52.014
	US	-	-	-	70,177	2,329,568	33.196
	Peru	-	-	-	72,915	3,896,813	53.443

	Australia	209,800	8,610,739	41.043	858,942	45,227,546	52.655
	Total	334,124	14,533,995	43.499	1,439,304	72,350,371	50.268
Shimizu	Malaysia	-	-	-	122,782	7,069,741	57.580
	Qatar	-	-	-	63,731	3,446,580	54.080
	US	-	-	-	66,203	4,351,049	65.723
	Peru	-	-	-	134,414	5,962,379	44.358
	Australia	56,130	2,058,668	36.677	158,257	7,993,785	50.511
	Papua New Guinea	-	-	-	84,542	4,713,322	55.751
	Total	56,130	2,058,668	36.677	629,929	33,536,856	53.239
Nagoya	Malaysia	111,670	3,732,730	33.426	868,385	39,854,343	45.895
	Brunei	-	-	-	68,154	3,286,291	48.219
	Indonesia	54,206	2,068,698	38.164	347,983	18,910,118	54.342
	Qatar	152,694	5,697,533	37.313	482,648	23,153,558	47.972
	Oman	-	-	-	61,993	3,946,116	63.654
	Russia	-	-	-	257,747	14,048,067	54.503
	US	71,058	4,462,711	62.804	482,992	27,700,266	57.351
	Nigeria	-	-	-	127,921	4,613,176	36.063
	Australia	197,171	9,044,255	45.870	1,156,882	60,816,088	52.569
	Papua New Guinea	72,935	2,592,695	35.548	141,617	4,694,512	33.149
	Total	659,734	27,598,622	41.833	3,996,322	201,022,535	50.302
Yokkaichi	Malaysia	58,546	1,339,012	22.871	474,281	22,352,993	47.130
	Indonesia	-	-	-	168,063	9,568,134	56.932
	Qatar	-	-	-	298,371	15,797,763	52.947
	Oman	-	-	-	186,717	9,203,771	49.293
	Russia	-	-	-	129,091	6,605,767	51.171
	US	56,518	3,301,282	58.411	397,947	20,889,582	52.493
	Australia	212,540	8,735,988	41.103	937,760	49,522,571	52.809
	Papua New Guinea	-	-	-	66,381	3,250,150	48.962
	Total	327,604	13,376,282	40.831	2,658,611	137,190,731	51.602
Osaka Sakai	Malaysia	-	-	-	342,505	15,845,629	46.264
	Brunei	-	-	-	187,282	8,209,158	43.833
	Indonesia	-	-	-	128,706	6,049,873	47.005
	Qatar	-	-	-	124,393	6,498,945	52.245
	Oman	58,644	3,397,511	57.935	561,123	30,318,411	54.032
	Russia	64,228	2,543,376	39.599	320,667	12,314,379	38.402
	US	143,780	7,058,312	49.091	404,726	17,529,341	43.312
	Nigeria	-	-	-	55,355	1,759,399	31.784
	Australia	228,687	10,352,609	45.270	1,952,054	96,380,554	49.374
	Papua New Guinea	-	-	-	327,161	17,769,641	54.315
	Total	495,339	23,351,808	47.143	4,403,972	212,675,330	48.292
Himeji	Malaysia	-	-	-	118,932	6,225,233	52.343
	Brunei	-	-	-	272,081	14,840,335	54.544
	Indonesia	122,914	4,700,641	38.243	467,151	24,666,751	52.803
	Qatar	118,867	4,213,754	35.449	451,118	22,211,506	49.237
	Oman	-	-	-	58,667	3,761,737	64.120
	Russia	-	-	-	63,628	3,713,256	58.359
	US	-	-	-	272,102	11,869,508	43.622

	Australia	139,716	6,065,434	43.413	1,511,858	79,129,076	52.339
	Papua New Guinea	75,753	3,579,224	47.249	419,287	23,625,057	56.346
	Total	457,250	18,559,053	40.588	3,634,824	190,042,459	52.284
Mizushima	Malaysia	-	-	-	118,654	6,316,650	53.236
	Qatar	59,552	2,110,202	35.435	59,552	2,110,202	35.435
	Oman	-	-	-	85,823	4,403,986	51.315
	Australia	-	-	-	242,470	13,906,299	57.353
	Total	59,552	2,110,202	35.435	506,499	26,737,137	52.788
Hiroshima	Malaysia	8,136	439,582	54.029	64,506	4,580,311	71.006
	Russia	-	-	-	92,837	5,445,400	58.655
	Australia	27,034	1,602,124	59.263	72,121	4,328,848	60.022
	Total	35,170	2,041,706	58.052	229,464	14,354,559	62.557
Iwakuni	Brunei	-	-	-	62,272	712,161	11.436
	Oman	63,050	2,933,913	46.533	290,898	14,610,867	50.227
	US	-	-	-	68,526	3,148,431	45.945
	Australia	59,624	2,084,289	34.957	480,751	22,378,034	46.548
	Total	122,674	5,018,202	40.907	902,447	40,849,493	45.265
Sakaide	Malaysia	58,472	1,973,907	33.758	295,138	11,940,577	40.458
Tobata	Malaysia	-	-	-	295,186	15,357,327	52.026
	Russia	63,206	3,120,274	49.367	193,398	9,790,467	50.623
	Australia	46,915	2,732,430	58.242	297,740	16,317,324	54.804
	Total	110,121	5,852,704	53.148	786,324	41,465,118	52.733
Nagasaki	Malaysia	-	-	-	10,875	822,993	75.678
Ooita	Indonesia	55,667	2,108,818	37.883	55,667	2,108,818	37.883
	Russia	-	-	-	64,410	3,463,234	53.769
	Australia	183,060	7,935,491	43.349	586,375	28,157,737	48.020
	Total	238,727	10,044,309	42.074	706,452	33,729,789	47.745
Kagoshima	Australia	15,953	916,951	57.478	82,055	4,492,436	54.749
Okinawa	Australia	-	-	-	196,645	12,808,170	65.133
	Grand Total	6,035,738	243,886,003	40.407	42,123,771	2,122,331,939	50.383

OJapan Jul 2020 LNG imports by country: MOF

Liquefied Natural Gas Import Data By Country						
	Jul 2020					
	Volume(mt)	Amount (1,000yen)	Unit Price (1,000yen)	Share	Monthly Change	Yearly Change
Malaysia	725,426	24,532,269	33.818	10.06%	83.05%	63.95%
Brunei	200,614	6,059,241	30.203	2.48%	26.59%	37.30%
Indonesia	232,787	8,878,157	38.139	3.64%	153.34%	40.28%
Qatar	728,435	25,572,903	35.107	10.49%	67.17%	62.19%
Oman	183,893	9,350,897	50.850	3.83%	94.87%	58.72%
Abu Dhabi	58,791	1,320,287	22.457	0.54%	32.61%	22.58%
Russia	390,670	15,329,980	39.240	6.29%	130.14%	51.79%
US	466,625	24,106,840	51.662	9.88%	239.83%	215.40%
Nigeria	116,357	3,944,919	33.904	1.62%	91.42%	122.11%
Australia	2,712,528	116,740,317	43.037	47.87%	124.17%	74.03%

Papua New Guinea	219,612	8,050,193	36.656	3.30%	48.94%	48.40%
Total	6,035,738	243,886,003	40.407	100.00%	98.81%	67.08%

Source: Ministry of Finance

OTEPCO Daily: oil, gas & coal fired capacity estimated at 37,740MW

Japanese largest utility Tokyo Electric Power Co (TEPCO) had 37,740 megawatts (MW) of available capacity tied to fossil fuel (oil, gas, coal) power generation, a figure that represents roughly 71% of its total capacity including solar power and so on, as of 08:30 Tokyo time on Friday based on Rim Intelligence's projection. The total capacity was forecast to reach 53,910 MW, while estimated peak demand was at 48,860 MW in Tokyo area.

The Japan Meteorological Agency has forecasted temperatures in Tokyo to reach a daily high of 35 degrees Celsius.

Meanwhile, total peak demand for nine areas (excluding Okinawa) has been foreseen at 157,780 MW for which a total of 176,920 MW of power will be available.

(unit: MW)	Estimated Available Capacity		Estimated Peak Demand in Tokyo Area
	Oil, Gas & Coal	Total	
Friday	37,740	53,910	48,860
Thursday	36,020	51,460	46,310

OTABLE 8/28 LNG exports from Ichthys, Australia

LNG Exports from Australia			
Departure	Carrier	Capacity(cum)	Capacity(mt)
Ichthys			
02-Sep-20	Pacific Breeze	180,000	82,800
Total		180,000	82,800
31-Aug-20	Symphonic Breeze	145,000	66,700
28-Aug-20	Esshu Maru	153,000	70,380
26-Aug-20	Energy Advance	145,000	66,700
23-Aug-20	Cape Ann	145,000	66,700
21-Aug-20	BW Everett	138,028	63,493
18-Aug-20	Point Fortin	154,200	70,932
16-Aug-20	Pan Europe	174,000	80,040

OTABLE 8/28 LNG Cargo Arrivals at Himeji Terminal

Japan LNG Terminal Cargo Arrivals				
Arrival	Carrier	Capacity(cum)	Capacity(mt)	Origin/Last Port
Himeji				
29-Aug-20	BW Everett	138,028	63,493	Ichthys, Australia
27-Aug-20	Northwest Sanderling	127,500	58,650	NWS, Australia
25-Aug-20	Maran Gas Roxana	173,400	79,764	Peru
21-Aug-20	Asia Excellence	160,000	73,600	Wheatstone,Australia

18-Aug-20	Senshu Maru	125,000	57,500	Bontang, Indonesia
15-Aug-20	Amur River	150,000	69,000	Sakhalin2, Russia
12-Aug-20	Cape Ann	145,000	66,700	Ichthys, Australia

©Notice**○Renewal of Rim's Website**

Rim Intelligence renewed our website on Oct 7, Mon. Although we do not change the URL (<https://eng.rim-intelligence.co.jp/index/top>) of the top page, some URLs for our reports or market news pages are changed. Therefore, in case you have bookmarked some URLs in our website, please bookmark again.

Moreover, the URL of Rim Trading Board is changed, but you can jump to the new page automatically when you access the current page. Please bookmark the new URL.

If you have any questions, please feel free to contact us.

Rim Intelligence Tech Team

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○Rim launches English version of Power report

Rim Intelligence started publication of the English version of our Power report from Jan 6, 2020. With the power market in Japan worth 20 trillion yen, one of the largest in the world, both local and foreign companies have made inroads into the market since it was fully liberalized in April 2016. In particular, foreign companies are interested in the wholesale power market and many of them have hoped that there is an English version of our Power report in order to help them better understand this market in Japan. Now, we are pleased to announce that we launched the English version from the beginning of this year. As in the Japanese version, the English version provides details not only on the movements of the wholesale power market in Japan, but also various kinds of data including the situation of thermal power plants in Japan and spark/dark spreads.

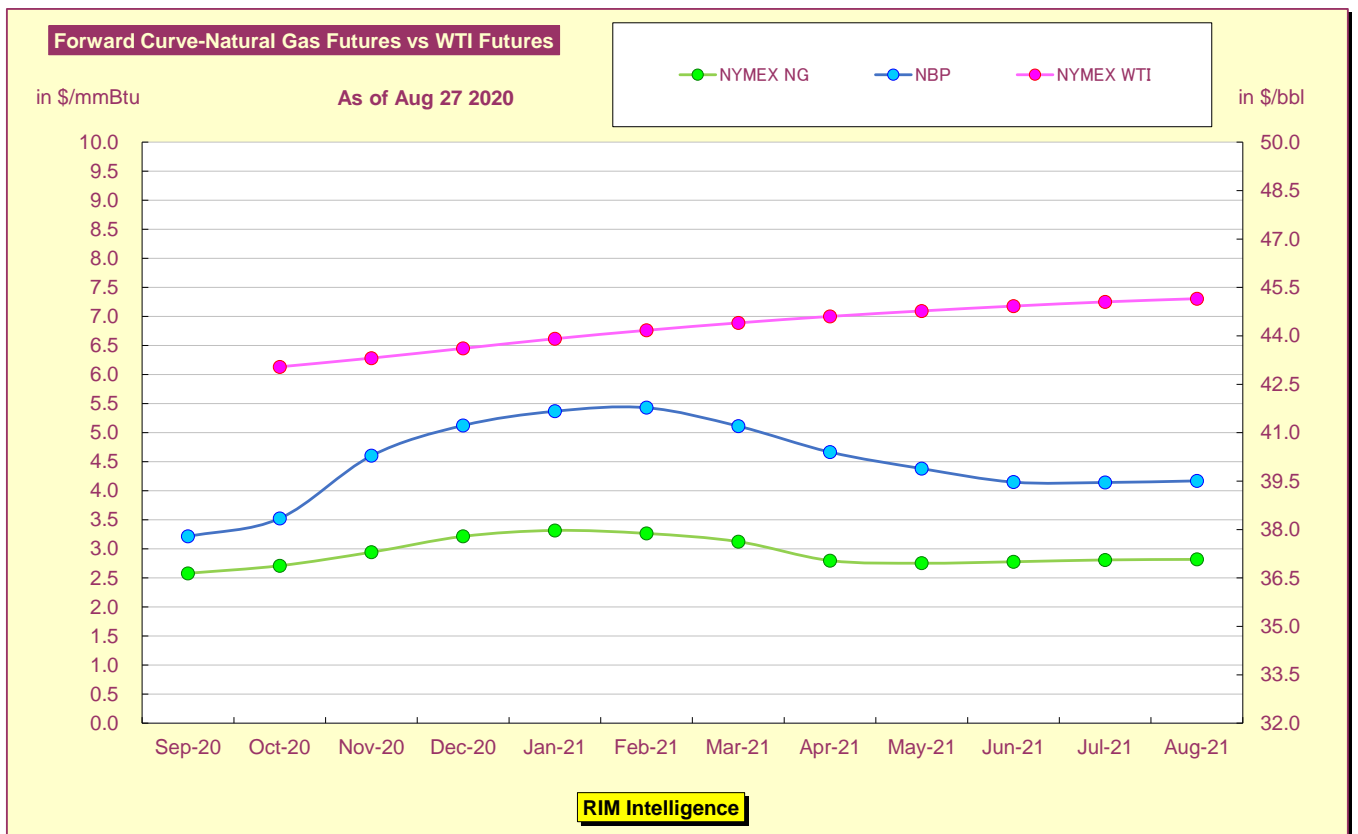
Please feel free to contact the Power Team if you have any inquiries.

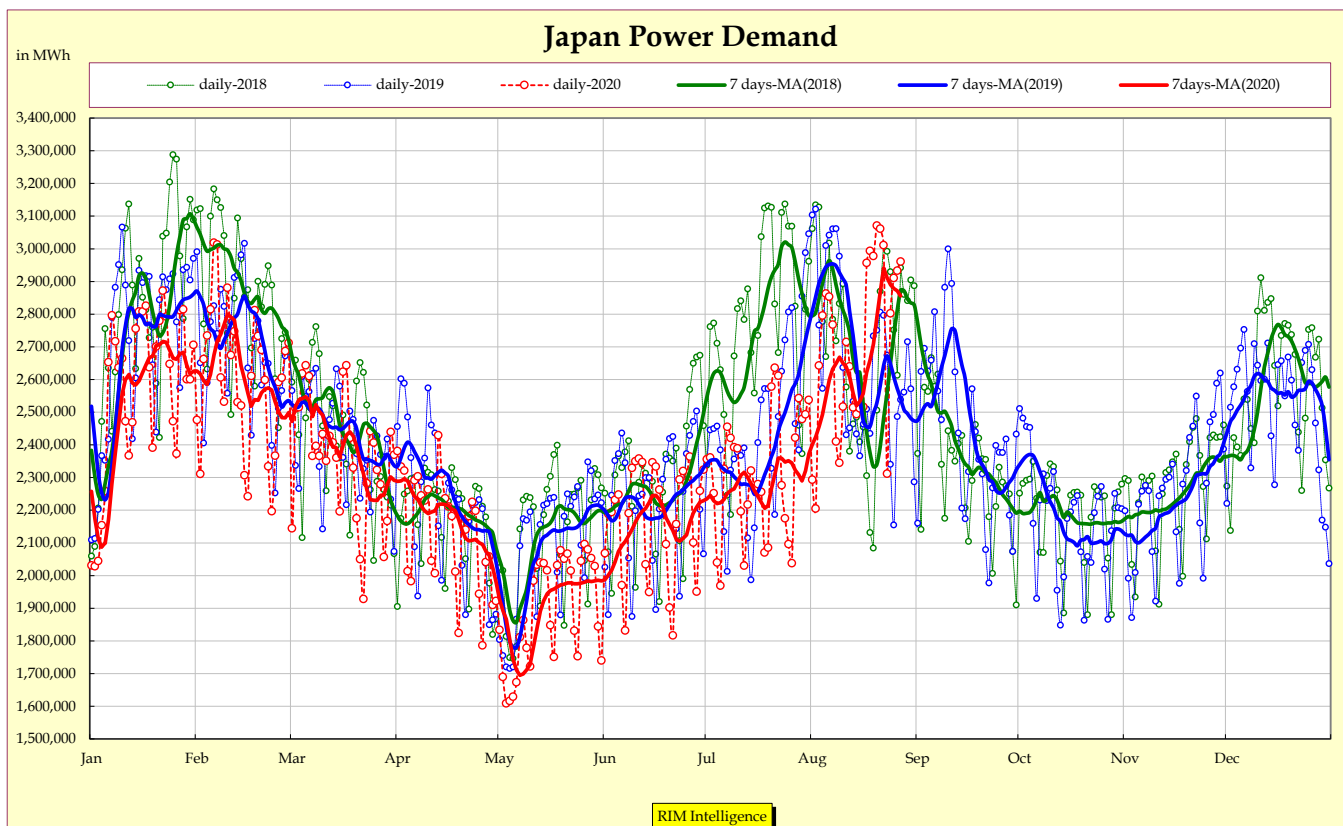
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FSRU ^⑤								
Built	Vessel Name	Storage Capacity (m3)	CCS	Nominal Send-out Capacity (MTPA)	Owner	Builder	Location	Charterer
2014	PGN FSRU Lampung	170,000	Membrane	2.9	Höegh LNG	HHI	Lampung LNG, Indonesia	PGN
2015	BW Singapore	170,000	Membrane	5.7	BW Gas	SHI	Ain Sokhna, Egypt	EGAS
2015	Golar Tundra	170,000	Membrane	5.5	Golar LNG	SHI	LNGC	WAGL
2016	Höegh Grace	170,000	Membrane	4.0	Höegh LNG	HHI	Cartagena, Colombia	SPEC
2017	BW Integrity	170,000	Membrane	5.0	BW Gas	SHI	Port Qasim GasPort, Pakistan	Pakistan GasPort

* LNGC can be operated both for LNG carrier and FSRU

Source : Rim Intelligence based on GIIGNL

Forward Curve-natural Gas Futures vs WTI Futures


Japan Power Demand

Spark Spread

Rim Index (yen/kWh Aug 29)			
24h	DT	Peak	Night
7.14	8.41	7.23	5.36

Fuel	thermal efficiency (%)	Fuel Price yen / ton · kl	After tax yen/ton · kl	Generation cost yen/kWh	Spread (yen/kWh)			
					24 hr	DT	Peak	Night
LNG	44.10	20,771	22,631	3.38	+3.76	+5.03	+3.85	+1.98
	50.00			2.98	+4.16	+5.43	+4.25	+2.38
	59.00			2.53	+4.61	+5.88	+4.70	+2.83
Coal	40.50	6,416	7,786	2.69	+4.45	+5.72	+4.54	+2.67
	45.00			2.42	+4.72	+5.99	+4.81	+2.94
Imported CFO	38.40	40,217	40,217	9.15	-2.01	-0.74	-1.92	-3.79
Domestic CFO								
0.3% sulfur	38.40	40,500	40,500	9.22	-2.08	-0.81	-1.99	-3.86
3.0% sulfur	38.40	34,250	34,250	7.79	-0.65	+0.62	-0.56	-2.43
Crude	38.40	31,040	33,840	8.05	-0.91	+0.36	-0.82	-2.69

*1 Rim Index is the average of East Japan prices and West Japan prices.

*2 Thermal efficiency shown in BOLD is the average thermal efficiency for general electric utilities in the fiscal year 2013.

*3 In the section of Fuel Price, LNG is a yen-based conversion from DES North East prices for first-half December delivery published in Rim LNG Report. Coal is a yen-based conversion from a sum of FOB Newcastle prices for November loading and freight rates. Imported CFO is a yen-based conversion from CFR Japan FO 0.3% S prices published in Rim Japan Products Report. Domestic CFO is the average of East Japan prices and West Japan prices for October delivery published in Rim Japan Products Report. Crude Oil is a yen-based conversion from the CIF import price for October delivery estimated by Rim. The exchange rate applied for the yen-based conversion is

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