

☆RIM LNG INTELLIGENCE DAILY

★No.2403 May 1 2020

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--TOKYO, 17:00 JST May 1 2020<Assessment Closing Time>

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○Golden Week Holiday Notice

Rim will not issue LNG report on Apr 29 and May 4-6, 2020 for the Golden Week holidays in Japan. The publication will resume on May 7 onward after the holidays. To view the Rim Intelligence 2020 holiday schedule, please visit the URL below:

<https://eng.rim-intelligence.co.jp/contents/info/RimHolidayNotice2020EN.pdf>

○Report on adherence to PRA principles

Rim Intelligence uploaded the report of the governance, processes and controls relating to the adherence to the PRA principles based on reasonable assurance on Feb 27, 2020. All of the daily reports of Rim Intelligence are subject to the principles. Please visit the following website for perusal.

<Reports>

Bunker Oil, Crude/Condensate, Asia Products (Products), LPG, Lorry Rack, Japan Products, Petrochemicals, LNG, Power

<https://www.rim-intelligence.co.jp/contents/info/pramenuEng4/>

© RECX-22 index

RECX-22 index for Friday was 44.76, up 2.27 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:

Tel: +81-3-3552-2411 Email: info@rim-intelligence.co.jp

For the publication schedule during the Golden Week holidays in Japan, please refer to the Holiday Notice on the top page of this report.

©Spot LNG Price Assessment (\$/mmBtu)						
ODES Japan (DJ)						
	Jun	Jul	Aug	Sep	Oct	Nov
	1.80	2.00	2.15	2.35	2.50	2.65
Daily Changes	0.00	0.00	0.00	0.00	0.00	0.00
	Dec	Jan	Feb	Mar	Apr	May
	2.75	2.85	2.95	2.85	2.75	2.65
Daily Changes	0.00	0.00	0.00	0.00	0.00	0.00

ONortheast Asia (DES)						
	Jun 2H	Jul 1H	Jul 2H	RIM Index		
--NEA	1.70-1.90	1.90-2.10	1.90-2.10	1.93		
Daily Changes	0.00	0.00	---	---		
RIM Index Monthly Cumulative Avg 1.93						
*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.						
	Aug	Sep	Oct	Nov	Dec	Jan
--NEA Forward	2.00-2.30	2.20-2.50	2.35-2.65	2.50-2.80	2.60-2.90	2.70-3.00
Daily Changes	0.00	0.00	0.00	0.00	0.00	0.00
	Summer	Autumn				
--NEA Seasonal Index	2.17	2.63				
Daily Changes	0.00	0.00				
*NEA: Northeast Asia						

O0thers			
	Jun 1H	Jun 2H	Jul 1H
--Middle East (FOB)	1.30 - 1.60	1.35 - 1.65	1.55 - 1.85
Daily Changes	0.00	0.00	---
--Middle East (DES)	1.55 - 1.65	1.60 - 1.70	1.80 - 1.90
Daily Changes	0.00	0.00	---
--South Asia (DES)	1.55 - 1.65	1.60 - 1.70	1.80 - 1.90
Daily Changes	0.00	0.00	---
	May 2H	Jun 1H	Jun 2H
--Atlantic (FOB)	1.10 - 1.30	1.20 - 1.40	1.20 - 1.40
Daily Changes	0.00	0.00	---
--Europe (DES)	1.55 - 1.85	1.60 - 1.90	1.60 - 1.90
Premiums to NBP	-0.10 - 0.20	-0.15 - 0.15	-0.15 - 0.15
Daily Changes	0.00	0.00	---
--South America (DES)	1.85 - 1.90	1.90 - 1.95	1.90 - 1.95
Daily Changes	0.00	0.00	---

©Freight		
	Freight Rates (\$/mmBtu)	VLSFO Bunker Prices (Apr 30) (\$/mt)
--Middle East/Northeast Asia	- 0.37 - 0.42 -	--Tokyo 226.50
--Atlantic/Northeast Asia	- 0.66 - 0.71 -	--Singapore 240.50
--Middle East/Europe	0.29 - 0.34	--Rotterdam 187.50
	Daily Rates (\$)	
--Conventional Tankers	- 19,500 - 24,500 -	
--DFDE Tankers	- 30,000 - 35,000 -	
--TFDE Tankers	- 30,000 - 35,000 -	

--MEGI Tankers	- 42,500 - 47,500 -
--X-DF Tankers	- 42,500 - 47,500 -
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		
	Aug	Jul	Jun	May	Apr	Mar	Feb	Jan
JCC(bbl)	24.16	22.99	20.95	23.40	41.12	62.48	70.64	70.34
Daily Changes	+0.32	+0.37	+0.14	-0.44	0.00	-0.02	+0.03	-
JCC(mmBtu)	4.10	3.90	3.55	3.97	6.97	10.59	11.97	11.92

◎Natural Gas Futures Prices (\$/mmBtu)									
ONYMEX Henry Hub (Apr 30)					OICE NBP (Apr 30)				
	Jun	Jul	Aug	Sep		Jun	Jul	Aug	Sep
Settle	1.949	2.170	2.275	2.331	Settle	1.747	1.936	2.120	2.404
Change	+0.080	+0.079	+0.079	+0.076	Change	+0.005	+0.013	+0.011	+0.026
High	1.953	2.175	2.280	2.336	High	1.814	1.981	2.146	2.424
Low	1.825	2.055	2.170	2.233	Low	1.732	1.921	2.109	2.393
Estimated Volume:	318,003				Estimated Volume:	16,490			

◎Petroleum Futures/Physical									
ONYMEX Petroleum Futures (Apr 30)					OPetroleum Physical (Apr 30)				
-WTI Futures (\$/mmBtu)				3.248	-Dubai Crude (\$/mmBtu)				3.441
				18.84					19.96
-Heating Oil (\$/mmBtu)				5.277	-Minas Crude (\$/mmBtu)				3.061
				73.19					18.00
OICE Petroleum Futures (Apr 30)					-LSWR Indonesia (\$/mmBtu)				3.903
-Brent Futures (\$/mmBtu)				4.387					
									24.20
				25.27	-HSFO Singapore (\$/mmBtu)				3.220
-Gasoil Futures (\$/mmBtu)				5.568					
									128.75
				236.75	-LPG CFR Japan (\$/mmBtu)				6.907
					(Propane) (\$/mt)				328.75

◎Coal Prices and Electricity Prices									
OCoal Prices (Apr 30)					OElectricity Prices(Yen/kWh) (May 01)				
-FOB New Castle-Global Coal (\$/mmBtu)				2.288	-JEPX 24h				5.25
				52.35	-JEPX Daytime				4.94
-ICE Futures FOB Richards Bay (\$/mmBtu)				2.332	-JEPX Peaktime				3.09
				53.35					

◎LNG Benchmark						
	Mar-20	Feb-20	Jan-20	Dec-19	Nov-19	Oct-19
-JLC Japan LNG Cocktail (\$/mmBtu)	9.538	9.328	9.282	9.452	9.437	9.395
	494.05	483.19	480.82	489.61	488.86	486.64
-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
May 1	Apr 29	T.B.R.	T.B.R.	Tohoku Elec	high \$1's	DES	1	end May to early Jun	Japan
May 1	Apr 29	Sakhalin 2	Sakhalin Energy	T.B.R.	\$2.00-2.10	DES	1	Jun 25 (loading)	T.B.R.
May 1	Apr 29	PNGLNG	PNGLNG	portfolio player	\$1.80-1.90	FOB	1	early Jun	T.B.R.
Apr 30	Apr 28	Wheatstone	KUFPEC	T.B.R.	\$1.80-1.90	FOB	1	Jun 21-26	portfolio player
Apr 30	Apr 27	Darwin	INPEX	T.B.R.	\$1.70-1.75	DES	1	May 24-26 (loading)	NEA
Apr 30	Apr 28	Ichthys	Ichthys LNG	①T.B.R. ②JERA	①\$1.70-1.75 ②\$1.70-1.75	①DES ②FOB	2	①Mar 18-20 (loading) ②Jun 7-9 (loading)	①NEA ②T.B.R.
Apr 30	early to mid Apr	T.B.R.	T.B.R.	Cheniere	TTF-20-30cst	DES	1	May	Europe
Apr 28	mid Apr	T.B.R.	portfolio player and other	European trader	\$2's	DES	2	late May and early Jun	T.B.R.
Apr 27	Apr 22	Yamal	Novatek	Northwest European trader	T.B.R.	DES	1	Jul 13-31	Spain
Apr 27	late Apr	PNGLNG	PNGLNG	BP	\$1.85-1.90	DES	1	H1 Jun	T.B.R.
Apr 24	Apr 22	PNGLNG	PNGLNG	Vitol	\$1.85-1.90	DES	1	May 25 (loading)	T.B.R.
Apr 24	late Apr	NWS	BHP Billiton	T.B.R.	T.B.R.	FOB	1	Jun-Jul	T.B.R.
Apr 24	Apr 20	Brunei	Brunei LNG	T.B.R.	\$2.05	DES	1	Jun 9-10	T.B.R.
Apr 24	Apr 22	Yamal	Novatek	T.B.R.	TTF-20cst	DES	1	H1 Jul	Europe
Apr 24	Apr 17	T.B.R.	Novatek x3	EnBW	TTF-20~-25cst	DES	4	Jul-Sep	Montoir etc

○ Recent Term Transactions

Reported date	Origin	Seller	Buyer	Price	FOB/DES	Volume	Start	Duration
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
Mar 12	Algeria	Sonatrach	ENI	T.B.R.	pipeline	T.B.R.	T.B.R.	until 2042
Feb 28	T.B.R.	portfolio player	Essar Steel	T.B.R.	DES	24 cargoes	2021 or 2022	2 yrs
Feb 28	T.B.R.	DGI	Guangdong Energy	around 10cts discount to NEA market	DES	4 cargoes/yr	2020	till 2023
Feb 10	Qatar	Qatargas	Shell	T.B.R.	FOB/DES	1.00 mil mt/yr	2020	15 yrs
Jan 21	Malaysia	Petronas	Shenergy	T.B.R.	DES	1.50 mil mt/yr	2022	T.B.R. (HOA)
Jan 20	T.B.R.	Woodside	JERA	ard Brent x 10.5%	DES	T.B.R.	T.B.R.	3-5 yrs
Jan 20	Bontang	Pertamina	T.B.R.	Brent x 11.5% or higher	FOB/DES	0.5 mil mt/year	2021	3-4 yrs
Jan 7	Qatar	Qatargas	KPC	Brent x below 11%	DES	3.0 mil / yr	2022	15 yrs
Nov 13	Bonny Island	NLNG	Vitol	T.B.R.	FEB/DES	0.50mil mt/year	2021	10 yrs

○Recent Tenders

Reported Date	Issuer	Close	Buy/Sell	FOB/DES	Timing	Price(\$)	Origin	Winner
Apr 30	Tohoku Elec	Apr 28	Buy	DES	May 16-Jun 16 (EOI)	T.B.R.	T.B.R.	T.B.R.
Apr 30	KIMIPO	Apr 29	Buy	DES	Jul 24-31	T.B.R.	T.B.R.	T.B.R.

Apr 30	Sakhalin Energy	Apr 29	Sell	FOB/DES	Jun 25 (loading)	\$2.00-2.10(DES)	Sakhalin 2	T.B.R.
Apr 30	KUFPEC	Apr 28	Sell	FOB	Jun 21-26	\$1.80-1.90	Wheatstone	portfolio player
Apr 30	Angola LNG	Apr 30	Sell	DES	May 25-30	T.B.R.	Angola	T.B.R.
Apr 30	Calamari LNG	Apr 28	Buy	DES	May 1-13	T.B.R.	T.B.R.	T.B.R.
Apr 30	CFE	Apr 30	Buy	DES	May 14-15	T.B.R.	T.B.R.	T.B.R.
Apr 28	PNGLNG	Apr 29	Sell	DES	Eastern Japan and Taiwan: Jun 12-15, Western Japan: Jun 13-15, Korea: Jun 13-16, Qingdao (China): Jun 13-16, Tangshan (China): Jun 14-15	\$1.80-1.90 (FOB)	PNGLNG	portfolio player
Apr 24	PNGLNG	Apr 22	Sell	DES	May 25 (loading)	\$1.85-1.90	PNGLNG	Vitol
Apr 24	CPC	May 5	Buy	DES	Jun, Aug, Sep, Oct, Nov, Dec	T.B.R.	T.B.R.	T.B.R. (EOI)
Apr 24	INPEX	Apr 27	Sell	FOB/DES	May 24-26 (loading)	\$1.70-1.75	Darwin	T.B.R.
Apr 24	Ichthys LNG	Apr 28	Sell	FOB/DES	①Mar 18-20 (loading) ②Jun 7-9 or Jun 10-12 (loading)	①\$1.70-1.75 ②\$1.70	Ichthys	①T.B.R. ②JERA
Apr 24	Novatek	Apr 22	Sell	DES	Jul 13-31	TTF-20cst	Yamal	Northwest European trader
Apr 24	BPCL	Apr 22	Buy	DES	May 25	T.B.R.	T.B.R.	not awarded
Apr 24	Angola LNG	Apr 28	Sell	FOB	Jun 8-14	T.B.R.	Angola	T.B.R.
Apr 22	KOMIPO	Apr 27	Buy	DES	late Jul	T.B.R.	T.B.R.	T.B.R.
Apr 22	NLNG	H2 Apr	Sell	FOB	H1 and H2 May	T.B.R.	Bonny	T.B.R.
Apr 21	Sakhalin Energy	Apr 23	Sell	DES	Jun 24, Jul 16, Aug 25, Oct 9, Dec 14. 2020 Feb 3	T.B.R.	Sakhalin 2	T.B.R.
Apr 20	Angola LNG	Apr 21	Sell	DES	May 1-30 (DES Atlantic)	T.B.R.	Angola LNG	T.B.R.
Apr 20	Brunei LNG	Apr 20	Sell	FOB/DES	Jun 9-10	\$2.05	Brunei	T.B.R.
Apr 20	Brunei LNG	Apr 16	Sell	FOB/DES	May 8-9	\$2.00	Brunei	Chinese end-user
Apr 20	Petronas	Apr 16	Sell	FOB/DES	May 27-28 (delivery), Jun 14-16 (delivery), Jun 22-23 (loading)	low-\$2's (May), Jun 14-16 not awarded	T.B.R.	T.B.R.
Apr 17	Botas	Apr 16	Buy	DES	May-Jun x7	T.B.R.	T.B.R.	T.B.R.
Apr 16	Brunei LNG	Apr 13	Sell	DES	Jun 4-6	\$2.30	Brunei	trader
Apr 16	Shenzhen Energy	Apr 17	Buy	DES	Jun 1-10	\$2.30-2.39	T.B.R.	trader
Apr 16	KPC	Apr 17	Buy	DES	May 11-12	T.B.R.	T.B.R.	T.B.R.
Apr 15	EnBW	Apr 17	Buy	DES	Jul-Sep x4	TTF-20~-25cst	T.B.R.	Novatek x3
Apr 14	Ichthys LNG	Apr 15	Sell	FOB	May 2-6 (loading)	T.B.R.	Ichthys	portfolio player
Apr 13	Shell	May 18	Sell	DES	4 cargoes/yr for 5 yrs from 2021 (with 5 yr extension option)	T.B.R.	Australia and Shell portfolio	T.B.R.
Apr 8	Pertamina	Apr 9	Sell	FOB	May and Jun each one	T.B.R.	Bontang	T.B.R.
Apr 7	Angola LNG	Apr 8	Sell	DES	Apr 24- May 12	T.B.R.	Angola	T.B.R.
Mar 30	Calamari LNG	Mar 27	Buy	DES	Apr 2, Apr 14 (partial cargoes)	T.B.R.	T.B.R.	T.B.R.
Mar 25	Angola LNG	Mar 24	Sell	DES	Apr to May	T.B.R.	Angola	T.B.R.
Mar 24	Angola LNG	Mar 26	Sell	DES	May 7-27	T.B.R.	Angola LNG	T.B.R.

Recent Shipping Transactions

Reported date	Vessel Name	charterer	counter party	Type	Price	Start	Duration
Apr 30	na	Exxonmobil	na	DFDE etc	na	end May	short terms
Apr 27	Gaslog Warsaw	Gunvor	Cheniere	X-DF	na	mid May	one to two voyage
Apr 24	GraceDhalia	DGI	NYK	S	na	late May	short term
Apr 24	Energy Liberty	Woodside	Centrica	T	na	Jun	one to two voyage
Apr 23	na	Sakhalin Energy	na	na	na	May 17	one voyage
Apr 23	na	Total	na	na	na	late May	a few voyages
Apr 22	Gaslog Singapore	Total	Gaslog	DFDE	\$40-41k	May	a few voyages
Apr 16	na (several tankers)	Shell	na	na	na	na	na
Apr 13	Arwa Spirit	Trafigura	na	DFDE	na	Jun to Jul	one year

***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
Apr 23	US projects	na	US	Jun 2020	na	Some US projects to reduce production. Total reduction might be 30% of nameplate.
Apr 22	Golden Pass	3	US	2024	na	Production will be started 2024
Apr 14	Qidong terminal	4	China	Jun-Jul 2020	na	Construction of T4 delayed due to COVID-19.
Apr 6	Sabine Pass	2, 4	US	Apr	na	T2 suspended and T4 reduces production.
Apr 1	NWS	na	Australia	na	na	scheduled maintenance will be delayed to Mar 2021 or after due to lack of workers
Mar 27	Petronet	na	India	Mar 26	na	Petronet declared FM for receiving LNG cargoes.
Mar 27	GAIL	na	India	Mar 26	na	GAIL declared FM for receiving LNG cargoes.
Mar 27	GSPC	na	India	Mar 26	na	GSPC declared FM for receiving LNG cargoes.
Mar 27	Adani Group	na	India	Mar 26	na	Adani Group declared FM for receiving LNG cargoes.
Mar 26	Adani ports	na	India	Mar 22	na	Adani declared FM on port operation.
Mar 26	na	na	India	late Mar	na	Indian end-user declared FM on taking Qatari cargoes.
Mar 24	Qatargas	na	Qatar	Feb	1-2 month	maintenance conducted from Feb to end-Mar.
Mar 19	Power of Siberia	na	Russia-China	H2 Mar	na	there is a scheduled maintenance

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

For the publication schedule during the Golden Week holidays in Japan, please refer to the Holiday Notice on the top page of this report.

MARKET COMMENTARY

ODES Japan

Contracts stable at DES Northeast Asia level

The contracts on the Japan OTC Exchange (JOE) on Friday were stable from a day before. The contracts for June and July stood at \$1.80 and \$2.00,

respectively, at the same level as 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 unchanged; Sakhalin sell tender awarded

DES Northeast Asia prices held steady at \$1.70-1.90 for second-half June delivery and

\$1.90-2.10 for first-half July delivery. Prices for second-half July delivery were also at \$1.90-2.10. There was no price difference within July. Even though spot prices were at a historical low, many end-users could not move to buy due to high stocks and supply/demand was loose. Sakhalin Energy awarded its sell tender closed on Apr 29 for a cargo loading Jun 25 at \$2.00-2.10 on a DES basis. Arrival at the destination would likely be in early July. Sakhalin Energy was active in sales, having conducted a sell tender closed on Apr 23 for six cargoes loading June to February 2021 as well.

Some Japanese power companies had no more quota for exercising downward quantity tolerance (DQT) and could not secure tank space to buy spot cargoes. In Northeast Asia, some end-user had previously planned to procure spot cargoes for certain timings but few players were moving to buy after adjusting the arrival schedules of long-term cargoes.

In China, independent players refrained from buyer due to the Labor Day holidays during May 1-5. As Japan would be on Golden Week holidays during May 2-6, players were expected to be limited. On the other hand, PetroChina was moving to do a time swap whereby it would release prompt cargoes and take forward cargoes. PetroChina seemed to be in negotiation for several cargoes including US cargoes. Although economic activities were gradually restarting in China, domestic demand had been sluggish due to the COVID-19 outbreak and LNG inventories were slow to draw down.

Tohoku Electric deal and sell tender results heard

Tohoku Electric Power was seen to have procured a cargo for end-May to early June delivery in the high \$1's. As reported, Tohoku Electric Power had requested sellers to indicate expression of interest (EOI) with closing date on Apr 28 for a cargo to be delivered May 16-Jun 16. One trader perceived that a deal was done on Apr 29. As

reported, Tohoku Electric Power procured a cargo in early April for mid-May to mid-June delivery and had also purchased five cargoes for April to June delivery.

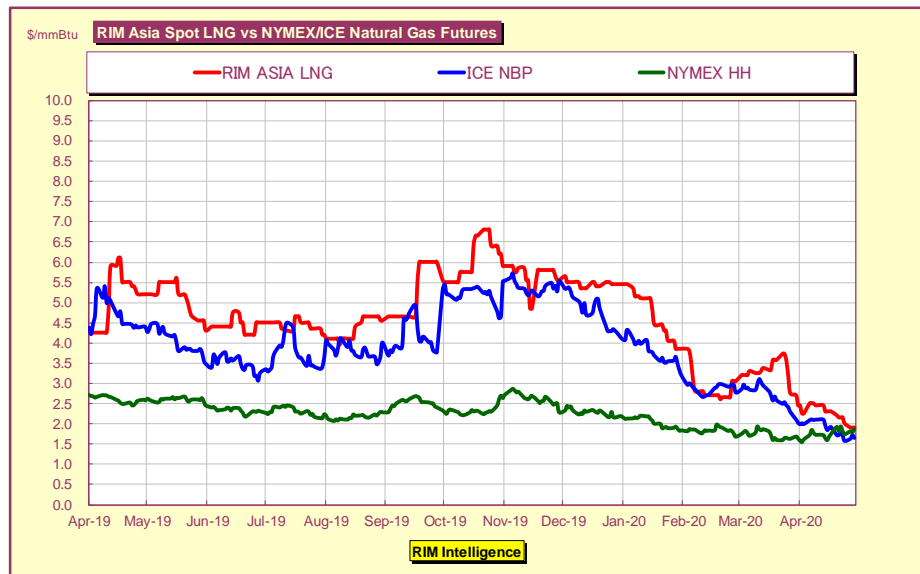
PNGLNG in Papua New Guinea reportedly awarded its sell tender closed on Apr 29 for a cargo loading early June at \$1.80-1.90 on an FOB basis. A portfolio player was seen to have bought the cargo to reduce the unit cost of its portfolio cargoes. PNGLNG often carries out sell tenders as JERA and Osaka Gas reduced their intake of term cargoes by exercising downward quantity tolerance (DQT).

Australia's Ichthys LNG closed a sell tender on Apr 28 for availability from the Ichthys project. JERA was seen to have been awarded for June loading. The buyer could choose to load on Jun 7-9 or Jun 10-12. JERA seemed to have won the tender at \$1.70-1.75 for Jun 7-8 loading. As reported, a cargo for May 18-20 loading was also offered in the tender and that cargo was awarded on a DES basis.

Kuwait Foreign Petroleum Exploration Company (KUFPEC) apparently awarded its FOB sell tender closed on Apr 28 for a cargo loading Jun 21-26 from the Wheatstone project in Australia to a portfolio player. As the winner was not looking for a vessel, it was believed to have its own vessel to load the cargo.

Forward market stable; buyers cautious about procuring summer cargoes

Forward prices for August to January 2021 delivery were stable. Prices for August delivery were at \$2.00-2.30. Potential demand was expected from Chinese independent players but buying interest from other end-users was limited as it was difficult to determine how far the economy would slow down due to the COVID-19 outbreak. Moreover, it was unclear at this point whether the weather during the high demand summer season would be severely hot and few players were moving to buy forward cargoes.



South Asia

Buying from other Indian players besides BPCL not seen

DES South Asia prices were unchanged at \$1.55-1.65 for first-half June delivery and \$1.60-1.70 for second-half June delivery. Talks remained thin. In India, Bharat Petroleum Corporation Limited (BPCL) moved on spot purchase in late April but apart from that, movements from buyers were not seen. A European trader with long-term contracts with Indian end-users mentioned that buyers continued taking term cargoes requested to postpone the supply timing as demand was lower than expected. On the other hand, prices for first-half July delivery were at \$1.80-1.90, higher than second-half June delivery by 20cts. Similar to the DES Northeast Asia market, the market was in a contango towards summer. Nevertheless, the above trader pointed out that the contango might narrow

going forward since demand on a DES South Asia basis might remain sluggish if the impact of COVID-19 was prolonged.

Dahej Mar import volume half of usual level

The 17.50 mil mt/year Dahej terminal in India imported much less volume than usual in March. A European trader mentioned that the volume was halved from usual the level to 700,000-800,000 mt. The Indian government declared a lockdown on Mar 25 due to the outbreak of the coronavirus. But traffic for humans and goods had reportedly been restricted at an early stage as the coronavirus started spreading in early March in India. As a result, demand for natural gas for power stations and plants and compressed natural gas (CNG) for transportation was said to have declined.

Middle East

Prompt unchanged with no deals done

FOB Middle East price were unchanged from the previous day at \$1.30-1.60 for first-half June loading and \$1.35-1.65 for second-half June loading. Prices for first-half July loading were at \$1.55-1.85, higher than second-half June loading by 20cts. Both sellers and buyers were taking wait-and-see stances and spot deals were not done. Although demand was thin, there were no movements to reduce

production. Projects in Qatar, Oman and Das Island shipped almost the same volume of cargoes in April as in March. While available cargoes were said to be seen from Qatar and Das Island, deals were not done as no demand was seen.

DES Middle East market bullish towards Jul

DES Middle East prices stayed intact at \$1.55-1.65 for first-half June delivery and \$1.60-1.70

for second-half June delivery. Supply/demand remained slack. Kuwait Petroleum Corporation (KPC) continued buying via short-term contracts but demand from Israel Electric Corporation (IEC) and Jordan's National Electric Power Company (NEPCO) was lower than the previous year. As natural gas production in Egypt and Israel was

increasing, IEC and NEPCO had less need to buy LNG. On the other hand, prices for first-half July delivery were at \$1.80-1.90. KPC might be active in buying during the high demand summer season. A European trader pointed out that the price spread between second-half June and first-half July was a contango of about 20cts.

○Atlantic Region

Trafigura wins Angola LNG tender on FOB basis

FOB Atlantic prices were left unrevised from a day earlier at \$1.10-1.30 for second-half May loading and at \$1.20-1.40 for first-half June loading on Friday. Prices for second-half June loading were also assessed at \$1.20-1.40. As previously reported, Angola LNG closed a DES-based sell tender on Apr 28 for delivery on May 25-30 to Malaysia and Indonesia as the farthest destination and also to

Europe, India and Pakistan. The cargo was eventually awarded to European trader Trafigura on an FOB basis to be brought to Asia although the price was not known. Meanwhile, state-run PetroChina was said to offer a time swap deal whereby it would release its ex-US cargoes for prompt loading and take cargoes for forward loading instead.

○Europe

Market steady; no difference between H1 and H2 Jun

DES Europe prices held steady at \$1.55-1.85 for second-half May delivery and \$1.60-1.90 for first-half June delivery. Spot demand was limited while supply room was ample. Natural gas supply via pipeline from Russia and Norway was smooth and supply/demand of cargoes for delivery to Europe remained slack. On the other hand, prices for second-half June delivery were at the same level as first-half June delivery at \$1.60-1.90. Supply/demand for first-half and second-half June was seen to be similar. This was usually the period to build stocks for the summer season but as the economy this year was sluggish due to the

COVID-19 outbreak, few players were moving to secure stocks towards the summer season.

Zeebrugge re-export cargo seen moving to India

A cargo shipped from the 6.80 mil mt/year Zeebrugge terminal in Belgium on Apr 23 was apparently sold to Asia. The cargo was loaded onto the 155,000cbm DFDE tanker "Lena River", which was chartered by a European trader. The vessel was sailing towards the Suez Canal. A source involved in chartering mentioned that similar to the previous time, the cargo might be supplied to India. "Lena River" had transported a re-export cargo from Zeebrugge in February to the 5.20 mil mt/year Mundra terminal jointly operated by Gujarat State Petroleum Corporation (GSPC) and Adani Group.

○South America

Petrobras may buy partial cargo

DES South America prices were left unrevised from the previous day at \$1.85-1.90 for second-half May delivery and at \$1.90-1.95 for first-half June delivery on Friday. Prices for second-half June delivery were also assessed at \$1.90-1.95. For talks over prompt delivery, Columbia's Calamari LNG closed a buy tender on Apr 28 for a partial cargo for

delivery on May 1-13. There were views that Brazil's state-run Petrobras had taken the remaining cargoes in the past after Calamari LNG had bought the partial cargoes. However, there was no information that Petrobras secured the remaining cargo this time. It was said that partial cargoes are normally traded at prices higher than those of standard-size cargoes.

O Freight Market

Market down; players with vessels show compromise amid weak sentiment

For short term charter of less than three months, daily rates stayed intact at \$19,500-24,500 for conventional tankers, \$30,000-35,000 for DFDE and TFDE tankers and \$42,500-47,500 for MEGI and X-DF tankers. About 20 vessels were available in Asia Pacific and about 10 vessels were available in the Atlantic, most of which were conventional and DFDE tankers. A source involved in chartering pointed out that supply/demand did not loosen considerably these two weeks but players with vessels showed compromise amid weak market sentiment. ON the other hand, chartering demand was seen to transport cargoes offered in tenders. Sell tenders were conducted where bids were acceptable on an FOB or a DES basis. Depending on the results of these tenders, sellers or buyers might move to charter vessels.

Centrica uses Tokyo Gas vessel under agreement on mutual cooperation

As reported, Australia's Woodside chartered the 165,000cbm TFDE tanker "Energy Liberty" from Britain's Centrica. Tokyo LNG Tanker, a subsidiary of Tokyo Gas, has some stake in the tanker and Tokyo Gas is using it as its own vessel. Tokyo Gas signed an agreement on mutual cooperation with Centrica in 2016. Based on this agreement, Centrica could use vessels of Tokyo Gas. Sources reckoned that the chartering contract for "Energy Liberty" between Woodside and Centrica was signed under this situation. Tokyo Gas also signed an agreement on mutual cooperation with Germany's RWE in 2018 and the two companies could apparently use each other's vessels.

O Japan Domestic Natural Gas Market

Oita Gas supplies city gas produced near Oita LNG import terminal

Oita Gas provides city gas to the city of Oita via its pipeline network. A spokesman at the firm said that the city gas is produced at the facilities located adjacent to the Oita LNG import terminal. Oita Gas is a 2% shareholder of the Oita LNG

import terminal. The spokesman declined to release any comment about its annual city gas sales. Meanwhile, Kyushu Electric Power holds the remaining 98% share and is in charge of importing LNG to the terminal. LNG imported is consumed at its Oita LNG-fired thermal power plant.

ONYMEX/ICE Natural Gas Future Market Commentary (Apr 30)

H.H. June gas rises with lower stockbuild

The June natural gas contract on NYMEX closed at \$1.949 per million British thermal units (mmBtu) on Thursday, up 8.0cts from the previous day. Stockbuild of natural gas was lower than the same week of a year ago since gas production was reduced in the US. According to the US Energy Information Administration (EIA), inventories as of Apr 24 were at 2.210 trillion cubic feet (tcf), up 70 bil cubic feet (bcf) from a week earlier. The inventories built 92 bcf in the same week last year.

The June natural gas contract of NBP on ICE in London settled at \$1.747, up 0.5cts from the previous day. The contract moved only slightly because fewer players participated in the market. 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, Apr 29, correlated to \$1.66, down 9.6cts from the previous day.

In NYMEX ACCESS TRADE, the front-month June natural gas contract as of 9:00am local time on Friday was trading at \$1.937/mmBtu, down 1.2cts from the close on Thursday.

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OTEPKO Daily: oil, gas & coal fired capacity estimated at 25,120MW

Japanese largest utility Tokyo Electric Power Co (TEPCO) had 25,120 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 35,880 MW, while estimated peak demand was at 25,760 MW in Tokyo area.

The Japan Meteorological Agency has forecasted temperatures in Tokyo to reach a daily high of 26 degrees Celsius.

Meanwhile, total peak demand for nine areas (excluding Okinawa) has been foreseen at 88,050 MW for which a total of 113,910 MW of power will be available.

nit: MW)	Estimated Available Capacity		Estimated Peak Demand in Tokyo Area
	Oil, Gas & Coal	Total	
Friday	25,120	35,880	25,760
Thursday	22,730	32,470	27,720

OTABLE 5/1 LNG Cargo Arrivals at Tokyo Bay

Japan LNG Terminal Cargo Arrivals					
Arrival	Terminal	Carrier	Capacity(cum)	Capacity(mt)	Origin/Last Port
Tokyo Bay					
08-May-20	Ogishima	Maran Gas Olympias	173,400	79,764	Nigeria
06-May-20	Ogishima	Bishu Maru	164,700	75,762	Gorgon, Australia
05-May-20	Sodegaura	Amadi	154,800	71,208	Brunei
04-May-20	Futtsu	British Sponsor	173,400	79,764	PNG
03-May-20	Sodegaura	Northwest Sandpiper	127,500	58,650	NWS, Australia
02-May-20	Negishi	Energy Confidence	155,974	71,748	Ichthys, Australia
01-May-20	Sodegaura	Northwest Snipe	127,500	58,650	NWS, Australia
Total			1,077,274	495,546	

OTABLE 5/1 LNG Cargo Arrivals at Taiwan Terminals

LNG Cargo Arrivals at Taiwanese Terminals					
Arrival	Terminal	Carrier	Capacity(cum)	Capacity(mt)	Origin
30-Apr-20	Yung An	British Mentor	173,400	79,764	Freeport, USA
29-Apr-20	Taichung	Seri Amanah	145,000	66,700	Bontang, Indonesia
27-Apr-20	Taichung	Grand Mereya	147,200	67,712	Sakhalin 2
25-Apr-20	Taichung	Golar Grand	145,700	67,022	Gorgon, Australia
25-Apr-20	Yung An	Maran Gas Leto	174,000	80,040	Papua New Guinea
23-Apr-20	Taichung	Titor No4	145,000	66,700	Qatar
21-Apr-20	Yung An	Wilpride	155,900	71,714	Cameron, USA
20-Apr-20	Taichung	Grand Aniva	147,200	67,712	Sakhalin 2
18-Apr-20	Yung An	Al Kharsaah	217,000	99,820	Qatar

17-Apr-20	Taichung	Titor No1	145,000	66,700	Qatar
14-Apr-20	Yung An	Pacific Breeze	180,000	82,800	Ichthys, Australia
12-Apr-20	Yung An	Abadi	135,000	62,100	Brunei
11-Apr-20	Taichung	Ejinan	145,000	66,700	Qatar
09-Apr-20	Yung An	Woodside Rogers	159,800	73,508	Pluto, Australia
08-Apr-20	Taichung	Titor No3	145,000	66,700	Qatar
06-Apr-20	Taichung	LNG Maleo	127,500	58,650	DSLNG, Indonesia
05-Apr-20	Yung An	Maran Gas Leto	174,000	80,040	Papua New Guinea
04-Apr-20	Taichung	Grand Aniva	147,200	67,712	Sakhalin 2
02-Apr-20	Taichung	Titor No2	145,000	66,700	Qatar
		Total	2,953,900	1,358,794	

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ORenewal 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

813-3552-2411 info@rim-intelligence.co.jp

ORim 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.

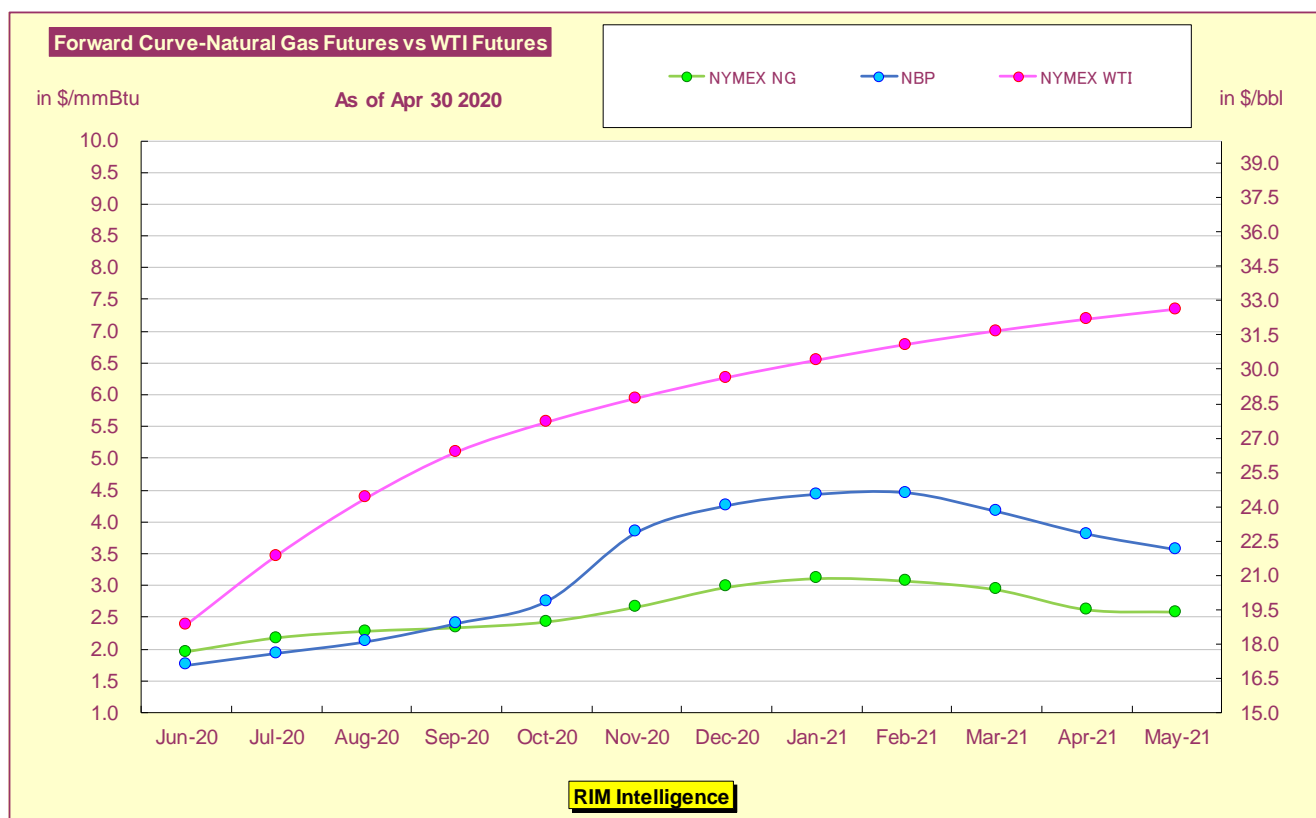
(Tel: +813-3552-2411, Email: info@rim-intelligence.co.jp)

Newly built tankers ①

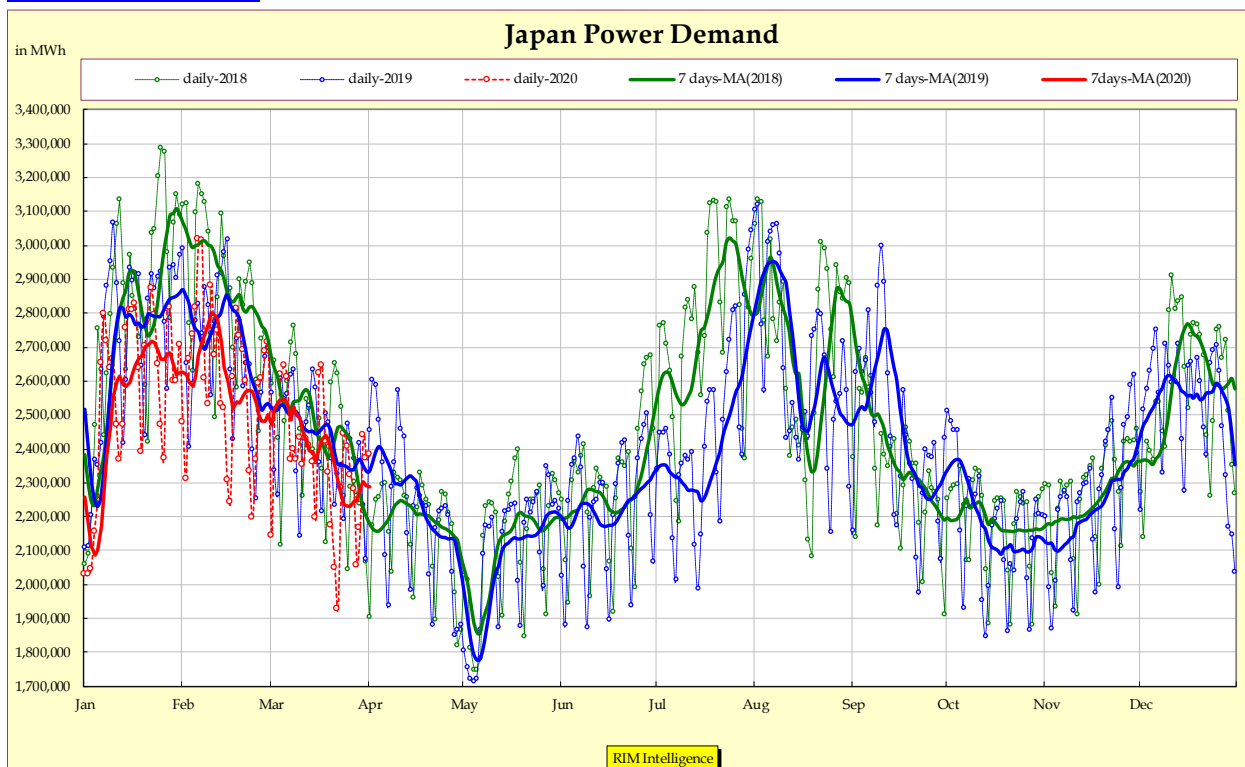
Ship Name	Shipowner	Shipbuilder	Type	Delivery Year	Capacity (cm)	Propulsion Type
Energy Pacific	Alpha Tankers	Daewoo	Tanker	2020	170,000	MEGI
Energy Endeavour	Alpha Tankers	Daewoo	Tanker	2020	170,000	na
Daewoo 2469	Maran Gas Maritime	Daewoo	Tanker	2020	173,400	MEGI
Daewoo 2477	Maran Gas Maritime	Daewoo	FSRU	2020	173,400	DFDE
Daewoo 2478	Maran Gas Maritime	Daewoo	Tanker	2020	173,400	MEGI
Yiannis	Maran Gas Maritime	Daewoo	Tanker	2020	169,540	na
Daewoo 2485	Alpha Tankers	Daewoo	Tanker	2021	173,400	MEGI
Global Star	Maran Gas Maritime	Daewoo	FSRU	2021	173,400	na
Daewoo 2481	Minerva Marine	Daewoo	Tanker	2021	170,000	na
Daewoo 2482	Minerva Marine	Daewoo	Tanker	2021	170,000	na

Source : Rim Intelligence based on IGU

Forward Curve-natural Gas Futures vs WTI Futures



Japan Power Demand



Spark Spread

Rim Index (yen/kWh May 2)								
24h	DT	Peak	Night					
4.69	4.28	2.52	5.26					
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	9,778	11,638	1.74	+2.94	+2.54	+0.78	+3.52
	50.00			1.53	+3.15	+2.75	+0.99	+3.73
	59.00			1.30	+3.38	+2.98	+1.22	+3.96
Coal	40.50	6,726	8,096	2.80	+1.88	+1.48	-0.28	+2.46
	45.00			2.52	+2.16	+1.76	-0.00	+2.74
Imported CFO	38.40	23,111	23,111	5.26	-0.57	-0.98	-2.74	+0.00
Domestic CFO								
0.3% sulfur	38.40	33,500	33,500	7.62	-2.94	-3.34	-5.10	-2.36
3.0% sulfur	38.40	25,000	25,000	5.69	-1.00	-1.41	-3.17	-0.43
Crude	38.40	16,170	18,970	4.51	+0.17	-0.23	-1.99	+0.75

*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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