

NAPHTHA

- East-West spread widens; new shipping fixtures from Europe to Asia seen
- HTC buys HFRN for H1 Oct. arrival at a low-teens premium to Japan spot assessments

LPG

- Sonatrach lowers Sept. CP prices after Aramco announcement
- China Gas completes construction of PDH plant in Taixing
- Thailand July demand up 6.3% on-month

GASOLINE

- 92 RON crack flips to discount
- Southeast Asia demand softer amid economy slowdown
- IOCL seeks up to 32 kt of 95 RON for mid-September delivery

Naphtha (\$/mt)	LOW	HIGH	MEAN	CHANGE	PREM/DISC
CFR Japan	648.50	649.50	649.000	10.500	-1.000
FOB Arab Gulf LR1	568.01	569.01	568.508	10.312	13.000

Naphtha (\$/bbl)	LOW	HIGH	MEAN	CHANGE	PREM/DISC
FOB Singapore	66.12	66.22	66.173	0.870	--

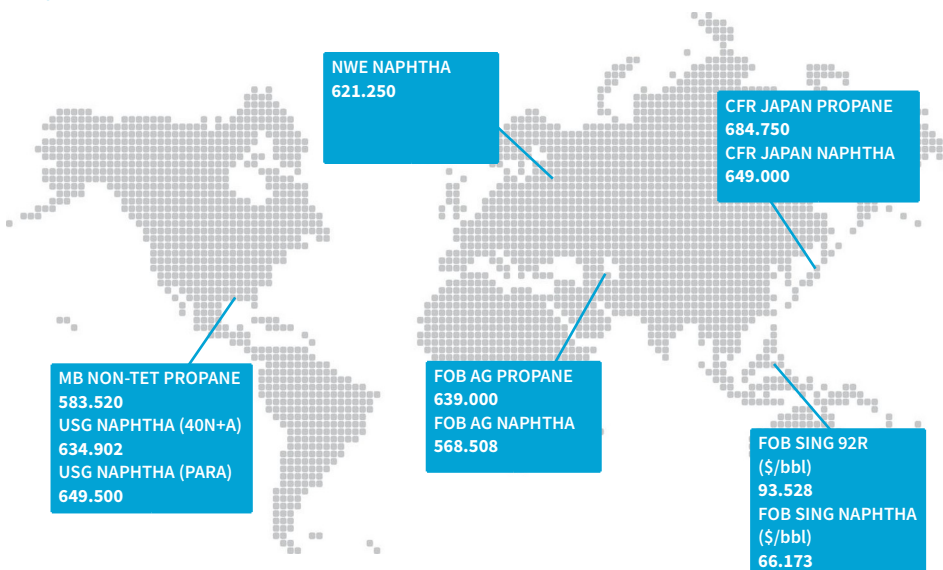
LPG (\$/mt)	LOW	HIGH	MEAN	CHANGE	PREM/DISC
CFR Japan Propane	684.25	685.25	684.750	1.500	--
CFR South China Propane	698.00	699.00	698.500	2.500	--
FOB Arab Gulf Propane	638.50	639.50	639.000	1.000	-15.000
FOB Arab Gulf Butane	603.50	604.50	604.000	-14.000	-15.000

FOB Singapore (\$/bbl)	LOW	HIGH	MEAN	CHANGE	PREM/DISC
92-RON	93.48	93.58	93.528	-3.880	1.733
95-RON	96.11	96.21	96.161	-4.976	0.767
97-RON	98.91	99.01	98.961	-4.976	--

Market news headlines

- Japan's ENEOS Shuts Larger of Its Two Naphtha Crackers in Kawasaki
- Asian Naphtha Struggles Amid Sluggish Petrochemical and Gasoline Demand
- China Gas Completes Yanchang PDH Unit Construction...**(see more from Page 8)**

Key Prices (\$/mt)



16:30 SINGAPORE BRENT MARKER (\$/bbl)

MONTH	PRICE	CHANGE
November	94.15	-3.20
December	92.82	-3.39
January	91.59	-3.29

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NAPHTHA

East-West spread wider, with new shipping fixtures from Europe to Asia

Asian naphtha prices rose on Thursday weighed on higher swap values.

Crude oil prices were lower on Thursday, with Front-month (November delivery) Brent crude was at \$94.15/bbl at 4:30pm Singapore time, down from \$96.21/bbl on Wednesday.

The refining margin, or crack, improved today by \$34.5/mt on day to -\$57.125/mt.

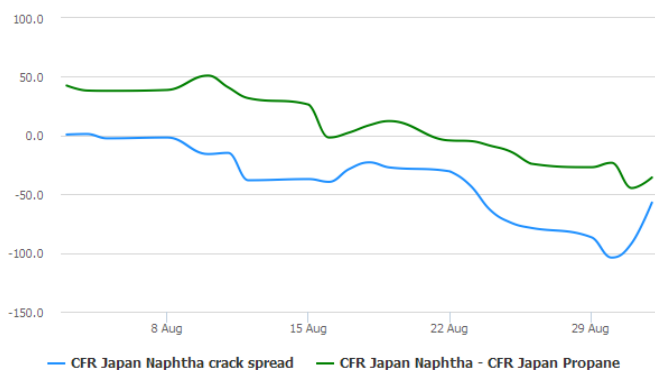
Front-month (October/November) Japan swap time spread was in contango with the spread at \$1.5/mt, indicating a bearish sentiment.

In outright discussions, H1 Nov. was bid and offered at \$636/mt and \$639/mt respectively. The latest front-month East West spread was wider at \$19.75/mt on Thursday from \$19/mt. Shipping fixtures indicate two more European cargoes are heading to Asia this month as arbitrage window is open. (See more in Shipping Fixtures).

HanwhaTotal Petrochemical (HTC) awarded its tender to buy heavy full range naphtha (HFRN) for H1 Oct. delivery to Daesan at low teens to Japan spot assessment, according to market sources. HTC last bought HFRN last week at a slight discount to the Japan spot assessment with 30-day pricing, said sources noting that the cargo is likely to be of C grade of minimum 30% N+A content.

Naphtha crackers in northeast Asia are running at reduced rates over margin concerns due to poor downstream petrochemical demand. (see more on news)

30 DAYS CFR JAPAN NAPHTHA SPREADS (\$/mt)



CFR JAPAN OPEN SPEC NAPHTHA (\$/mt)

LAYCAN	LOW	HIGH	MEAN	CHANGE
H2 Oct	648.00	649.00	648.500	10.000
H1 Nov	648.00	649.00	648.500	10.000
H2 Nov	649.00	650.00	649.500	11.000

SPOT PHYSICAL NAPHTHA (\$/mt)

MARKET	LOW	HIGH	MEAN	CHANGE	PREM/DISC
CFR Japan	648.50	649.50	649.000	10.500	-1.000
CFR Korea (Daesan-basis)	646.50	647.50	647.000	15.000	-3.000
FOB Singapore (\$/bbl)	66.12	66.22	66.173	0.870	--
FOB Arab Gulf LR1	568.01	569.01	568.508	10.312	13.000
FOB Arab Gulf LR2	578.34	579.34	578.839	10.817	--

CFR JAPAN NAPHTHA SWAPS (\$/mt)

MONTH	LOW	HIGH	MEAN	CHANGE
Oct	656.50	657.50	657.000	10.500
Nov	658.00	659.00	658.500	7.000
Dec	658.25	659.25	658.750	4.750

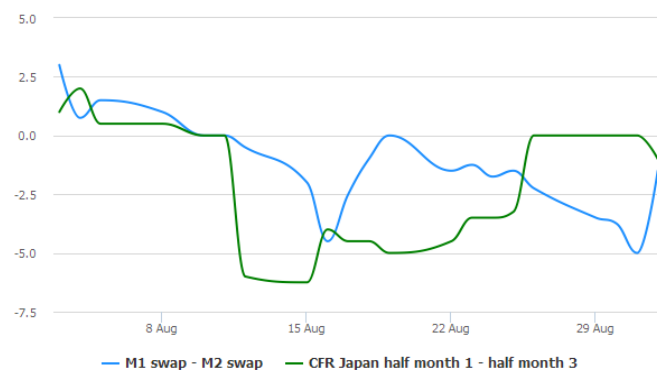
NAPHTHA EAST-WEST SPREADS (\$/mt)

MONTH	LOW	HIGH	MEAN	CHANGE
Oct	19.25	20.25	19.750	0.750
Nov	16.00	17.00	16.500	-1.000
Dec	13.50	14.50	14.000	-0.750

FOB SINGAPORE NAPHTHA SWAPS (\$/bbl)

MONTH	LOW	HIGH	MEAN	CHANGE
Sep	66.85	66.95	66.900	1.100
Oct	67.30	67.40	67.350	1.300
Nov	67.40	67.50	67.450	0.900

30 DAYS CFR JAPAN NAPHTHA TIME SPREADS (\$/mt)



LPG

Sonatrach follows Aramco with lower Sept. CP prices

Asian LPG prices inched up from Wednesday following slightly higher swap prices.

Afternoon online trading included an offer for a H2 October delivery 23,000 mt propane cargo at a discount of \$9/mt to the October Far East quotes.

In addition, a bid was tabled for a H2 October delivery 23,000 mt propane cargo at a discount of \$2/mt to the September Far East quote.

The front-month Sept./Oct. Far East propane swap spread widened \$2/mt to \$13.50/mt from the previous day. The October CP propane swap edged up \$1/mt on-day to \$654/mt, \$4/mt above the official September price, OPIS data showed.

Algeria's Sonatrach followed Aramco by setting its contract price (CP) lower for September at \$640/mt for propane and \$612/mt for butane, down \$20/mt and \$33/mt from respective August prices, according to sources.

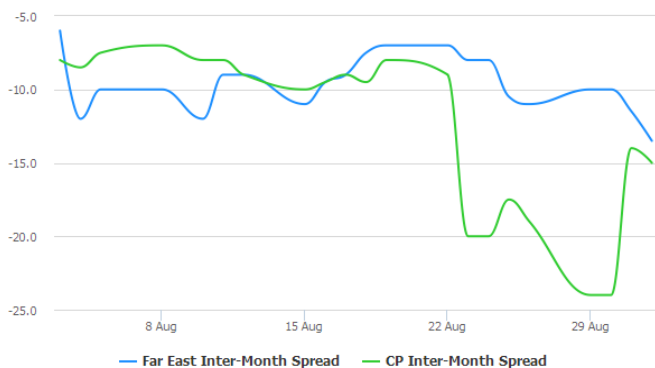
The prices were last lower at \$640/mt in September 2021 for propane and \$605/mt in July 2021 for butane, OPIS data showed.

Saudi Aramco set its September CP at \$650/mt for propane and \$630/mt for butane, lower by \$20/mt and \$30/mt, respectively, compared with the August CP prices, as reported earlier.

Meanwhile in China, China Gas has completed the construction of its 600,00 mt/yr propane dehydrogenation (PDH) at its Taixing petrochemical park, according to a news release by the Taixing government on August 31. (Read more in Market News)

China Gas' subsidiary Petropower ... (To be continued on Page 7)

30 DAYS PRICE FOR PROPANE SPREADS (\$/mt)



CFR (\$/mt)

PROPANE	LOW	HIGH	MEAN	CHANGE
CFR Japan	684.25	685.25	684.750	1.500
CFR South China	698.00	699.00	698.500	2.500
BUTANE	LOW	HIGH	MEAN	CHANGE
CFR Japan	649.25	650.25	649.750	-13.500
CFR South China	663.00	664.00	663.500	-12.500
LPG (11:11)	LOW	HIGH	MEAN	CHANGE
CFR Japan	666.75	667.75	667.250	-6.000
CFR South China	680.50	681.50	681.000	-5.000

FOB (\$/mt)

ARAB GULF	LOW	HIGH	MEAN	CHANGE	PREM/DISC
Propane	638.50	639.50	639.000	1.000	-15.000
Butane	603.50	604.50	604.000	-14.000	-15.000

FAR EAST PROPANE (\$/mt)

LAYCAN	LOW	HIGH	MEAN	CHANGE	PREM/DISC
H2 Sep	675.00	676.00	675.500	-0.500	-11.000
H1 Oct	688.50	689.50	689.000	1.500	-11.000
H2 Oct	692.50	693.50	693.000	1.500	-7.000

FAR EAST LPG (11:11) (\$/mt)

LAYCAN	LOW	HIGH	MEAN	CHANGE	PREM/DISC
H2 Sep	657.50	658.50	658.000	-8.000	-28.500
H1 Oct	671.00	672.00	671.500	-6.000	-28.500
H2 Oct	675.00	676.00	675.500	-6.000	-24.500

FAR EAST PROPANE SWAPS (\$/mt)

MONTH	LOW	HIGH	MEAN	CHANGE
Sep	686.00	687.00	686.500	-0.500
Oct	699.50	700.50	700.000	1.500
Nov	707.50	708.50	708.000	2.000

CP PROPANE SWAPS (\$/mt)

MONTH	LOW	HIGH	MEAN	CHANGE
Oct	653.50	654.50	654.000	1.000
Nov	668.50	669.50	669.000	2.000
Dec	676.50	677.50	677.000	3.000

PROPANE/BUTANE CP SWAP DIFFERENTIAL (\$/mt)

MONTH	LOW	HIGH	MEAN	CHANGE
Oct	34.50	35.50	35.000	15.000

SAUDI ARAMCO LPG CONTRACT PRICE (\$/mt)

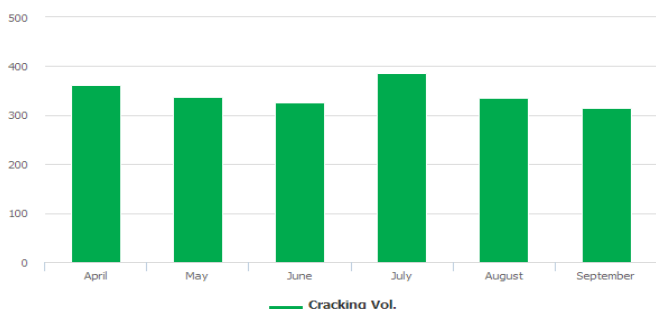
MONTH	PROPANE	CHANGE	BUTANE	CHANGE
Sep	650.000	-20.000	630.000	-30.000

SONATRACH LPG CONTRACT PRICE (\$/mt)

MONTH	PROPANE	CHANGE	BUTANE	CHANGE
Sep	640.000	-20.000	612.000	-33.000

LPG Cracking Survey

LPG CRACKING VOLUME ('000mt)

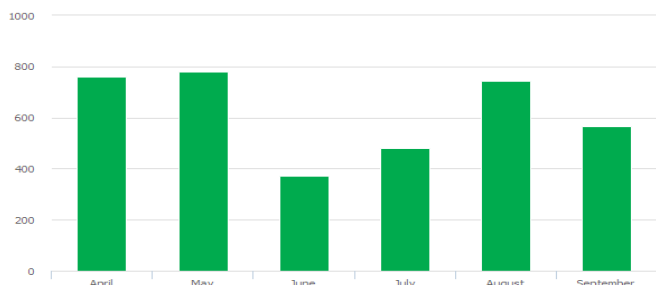


CFR PROPANE, LPG/CFR NAPHTHA RATIO (%)

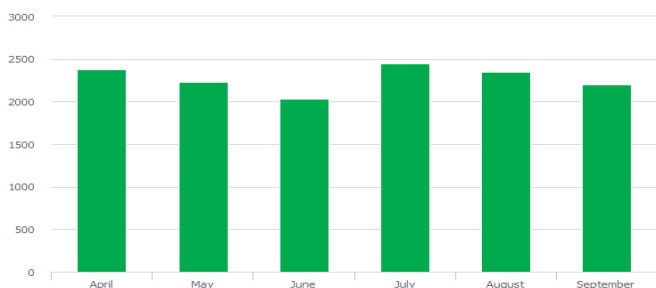
LAYCAN	PRO/NAP	CHANGE	LPG/NAP	CHANGE
1st Half Month	104.163	-1.710	101.465	-2.842
2nd Half Month	106.245	-1.429	103.547	-2.561
3rd Half Month	106.697	-1.604	104.003	-2.732

Arb Economics

NAPHTHA NWE/MED ARBITRAGE VOLUME ('000mt)



US-ASIA LPG VOLUME ('000mt)

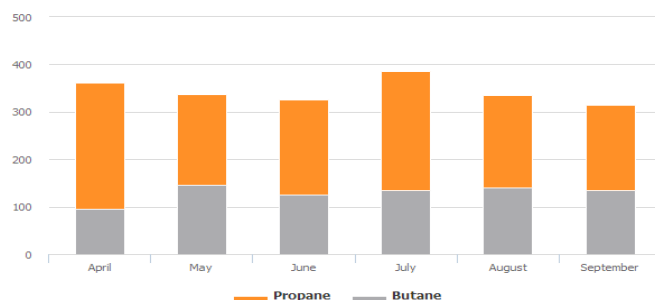


FREIGHT RATES (\$/mt)

ROUTE	PRODUCT	PRICE
Sing-Japan	Naphtha	47.85
AG-Japan LR 1	Naphtha	80.49
AG-Japan LR 2	Naphtha	70.16
Houston - Chiba (via Panama)	LPG	107.45
Houston - South China	LPG	121.05
Middle East Gulf - Japan	LPG	63.00
Middle East Gulf - South China	LPG	49.05

- The CFR Japan LPG/naphtha ratio eased to under 103%, last similar level on Aug 29
- Sept C3 to C4 widened \$15/mt to \$35/mt, last similar level on Dec 29 last year
- Japan's ENEOS shuts larger of its two naphtha crackers in Kawasaki (See more in Market News)

PROPANE/BUTANE CRACKING VOLUME ('000mt)



*Based on participants who provide C3/C4 breakdown. Total volumes differ from LPG Cracking Survey.

- Med-Far East freight rose by \$2.08/mt at \$52.5/mt on Thursday, the highest since Aug. 4
- Japan's ENEOS shuts the larger of its two naphtha crackers in Kawasaki (see more on news)
- OPIS Europe: European naphtha showed a smaller drop than Asian naphtha on Wednesday, as Asian petrochemicals also show limited appetite for naphtha.

- USGC FOB resale values continue to hold steady on Wednesday
- FOB prices for H2 Sept lifting kept at 3.5-4.25cts/gal premium to MB price for third consecutive day
- At least two VLGCs fixed to lift H1 Oct propane cargoes via USGC/East route

PROPANE SPOT CARGO FLOW ECONOMICS (\$/mt)

PROPANE	MONTH	LOW	HIGH	MEAN	CHANGE
Mont Belvieu Swap	Sep	564.76	565.81	565.285	1.303
	Oct	560.23	561.27	560.752	-0.625
	Nov	559.55	560.60	560.075	-0.651
Diff to Far East	Sep	-121.72	-120.72	-121.215	1.803
	Oct	-139.75	-138.75	-139.248	-2.125
	Nov	-148.43	-147.43	-147.925	-2.651
USGC FOB Resale Diff	H1 Oct	18.24	22.14	20.189	0.000
	H2 Oct	20.84	26.05	23.445	3.256

GASOLINE

Southeast Asia demand softer amid economy slowdown

Singapore 92, 95 and 97 RON cracks fell \$0.680-\$1.776/bbl to minus \$0.622/bbl, plus \$2.011/bbl and plus \$4.811/bbl respectively. 92 RON crack flips to discount for the first time in more than one month.

Spot prices of all three gasoline grades, 92, 95 and 97 RON, slumped by \$3.880-\$4.976/bbl to \$93.528/bbl, \$96.161/bbl and \$98.961/bbl respectively.

Spot differentials for 92 RON edged up \$0.026/bbl to plus \$1.733/bbl and 95 RON dipped \$0.075/bbl to plus \$0.767/bbl.

During the afternoon trade session, PTT offered a Sept. 27-Oct. 1 loading 92 RON gasoline cargo but there were no takers.

In Vietnam, Petrolimex is seeking a MR-size 95 RON gasoline for Sept. 10-14 loading, a trader said.

The tender had closed on August 31, but result was not known.

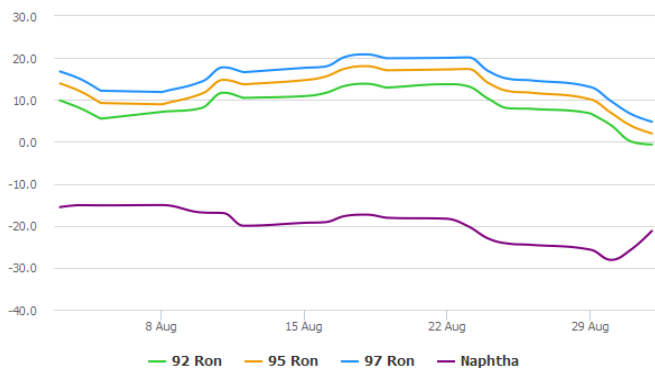
Southeast Asian demand is expected to stay tepid as the regional economies slowdown due to rising costs, trade sources said.

Over in South Asia, Indian Oil Corp. Ltd. (IOCL) issued a tender to buy 30,000-32,000 mt of 95 RON gasoline for Sept. 19-21 delivery to Chennai and Kochi, according to a document.

Offers are to be submitted by Sept. 2 and remain valid until later the same day.

The refiner previously issued a tender to buy up to 69,000 mt of 95 RON gasoline in two parcels, as reported previously. (To be continued on page 7)

30 DAY GASOLINE AND NAPHTHA CRACK SPREADS (\$/bbl)



FOB SINGAPORE (\$/bbl)

PRODUCT	LOW	HIGH	MEAN	CHANGE	PREM/DISC
92-RON	93.48	93.58	93.528	-3.880	1.733
95-RON	96.11	96.21	96.161	-4.976	0.767
97-RON	98.91	99.01	98.961	-4.976	--

FOB ARAB GULF (\$/bbl)

PRODUCT	LOW	HIGH	MEAN	CHANGE	PREM/DISC
92-RON	87.12	87.22	87.165	-4.302	8.400
95-RON	89.75	89.85	89.798	-5.399	8.600

SINGAPORE 92 RON GASOLINE SWAP (\$/bbl)

MONTH	LOW	HIGH	MEAN	CHANGE
Sep	92.40	92.50	92.450	-3.780
Oct	90.05	90.15	90.100	-3.980
Nov	89.35	89.45	89.400	-3.530

SINGAPORE 95 RON GASOLINE SWAP (\$/bbl)

MONTH	LOW	HIGH	MEAN	CHANGE
Sep	96.18	96.28	96.230	-4.840
Oct	93.18	93.28	93.230	-4.690
Nov	92.23	92.33	92.280	-4.290

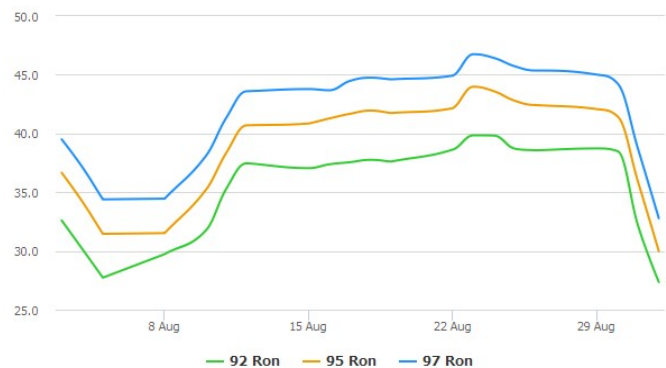
GASOLINE CRACK SPREADS (\$/bbl)

PRODUCT	LOW	HIGH	MEAN	CHANGE
92-RON	-0.67	-0.57	-0.622	-0.680
95-RON	1.96	2.06	2.011	-1.776
97-RON	4.76	4.86	4.811	-1.776

GASOLINE REFORMING SPREADS (\$/bbl)

PRODUCT	LOW	HIGH	MEAN	CHANGE
92-RON	27.31	27.41	27.355	-4.750
95-RON	29.94	30.04	29.988	-5.846
97-RON	32.74	32.84	32.788	-5.846

30 DAY GASOLINE REFORMING SPREADS (\$/bbl)



TENDERS

ISSUER	DETAILS	INCO/PORT	TIMING	CLOSING DATE	VALIDITY DATE
HTC	Buy HFRN	CFR/Daesan	H1 Oct.	30-Aug-2022	30-Aug-2022
Ceypetco	Buy 300kb of 92 RON	DAP/Colombo	Oct. 1-2	6-Sep-2022	9-Sep-2022
Ceypetco	Buy 127.5kb of 92 RON and 170kb of 95 RON	DAP/Colombo	Sept. 28-29	6-Sep-2022	9-Sep-2022
IOCL	Buy 30-32kt of 95 RON	CFR/Chennai and Kochi	Sept. 19-21	2-Sep-2022	2-Sep-2022

SHIPPING FIXTURES

VESSEL NAME	SIZE (kt)	CARGO	LOADING DATE	EST. DEL. PERIOD	ROUTE	CHARTERER
ENEOS EXPLORER	44	LPG	Oct. 9-10	H2 Nov.	USGC/East	BGN
BW VAR	44	LPG	Sept. 9-10	H2 Oct.	USCG/East	P66
CAPTAIN JOHN	44	LPG	Oct. 8-9	H2 Nov.	USGC/East	Unipecc
BU SIDRA	44	LPG	Sept. 25-26	H2 Oct.	AG/East	Itochu
KONSTANTIN JACOB	60	NAP	Sep. 8	H1 Oct.	Huelva/Japan	Trafigura
MINOANSEA	80	NAP	Sep. 8	H1 Oct.	Skikda/Japan	Trafigura
STI SPIGA	85	NAP	Sep.10	H1 Oct.	Eleusis/Japan	Aramco
LIAN BAI HU	60	UMS	Sep. 02	H1 Sept.	SK/Spore	ATS
SUNNY LION	60	UMS	Sep. 06	H1 Sept.	Sikka/Spore	RIL
ALPINE AMALIA	90	UMS	Sep. 08	H2 Sept.	SKorea/UKC/Spore	BP
FOREVER CONFIDENCE	35	UMS	Sep. 10	H2 Sept.	Spore/Phil	AMPOL
EMERALD SHINER	60	UMS	Sep. 17	H2 Sept.	N.Mang/Spore/AG/UKC	UNIPEC

REFINERY MAINTENANCE

REFINERY	LOCATION	CAPACITY	START DATE	PERIOD	DETAILS
Taiyo Oil	Shikoku, Japan	138,000 b/d	May	mid-August	no.1 and 2 CDU maintenance
PetroChina Hohhot Refinery	Inner Mongolia, China	100,000 b/d	July	September	Scheduled maintenance
Hengli Dalian CDU	Dalian, China	200,000 b/d	July	August	Scheduled maintenance
Shanghai Petrochemical Co.	Shanghai, China	160,000 b/d	July	August	Scheduled maintenance
CPC Corp.	Kaohsiung, Taiwan	400,000 b/d	August	October	40kbd Reformer scheduled maintenance
FPCC.	Mailiao, Taiwan	540,000 b/d	August	mid-September	84kbd RFCC shut due to boiler leakage
S-Oil	Onsan, South Korea	240,000 b/d	September	September	Ordered by the local fire department to shut 240kbd No. 2 CDU, 250kbd No. 3 CDU, 75kbd hydrocracker, No. 1 PX unit and four other subsidiary processes on grounds of violations to Dangerous Substances Safety Management Act
Pertamina	Balikpapan, Indonesia	260,000 b/d	mid-August	end-September	Scheduled maintenance
Reliance Industries Ltd.	Jamnagar, India	704,000 b/d	Sept. 15	Oct. 10	Scheduled maintenance on 355kbd CDU and 200kbd RFCC

CRACKER/PDH MAINTENANCE

CRACKER/PDH	LOCATION	ETHYLENE CAP	PROPYLENE CAP	START DATE	PERIOD	DETAILS
FPCC	Mailiao, Taiwan	1.035 million mt/y	518,000 mt/y	Mid-July	End-Sept.	Scheduled maintenance was brought forward from early-Aug. on cramped margins.
SK Advanced	Ulsan, South Korea	-	600,000 mt/y	Jul. 25	Late-Aug. or early-Sept.	Scheduled maintenance for PDH.
PCS	Jurong, Singapore	615,000 mt/y	270,000 mt/y	Jul. 25	3 weeks	Scheduled maintenance.Targetting restart this week, one week later than original plan.
CPC Corp.	Kaohsiung, Taiwan	1.105 million mt/y	552,500 mt/y	Late-July	3 months	Reducing run rates from 100% to 90% from late July to August.
(Updated) Ningbo Kingfa	Ningbo, east China	-	600,000 mt/y	End-July	2 months	Scheduled maintenance for PDH extended to end-Sept instead of end-Aug
OE Ningbo	Ningbo, east China	-	660,000 mt/y	Early-August	2 months	Scheduled maintenance for PDH.
HMEL	Bathinda, India	1.2 million mt/y	500,000 mt/y	Q3	-	The startup of the new cracker has been delayed from Q2 to Q3, according to market sources.
Shandong Huifeng	Shandong, north China	-	250,000 mt/y	End-July	-	New PDH plant. Delayed from original schedule of Oct. 2021. In the process of feeding in.
Shenghong Petrochemical	Lianyungang, east China	1.4 million mt/y	700,000 mt/y	Sept.-Dec. 2022	-	New cracker. Completed construction early-August.
Wanda Tianhong	Dongying, north China	-	250,000 mt/y	June	-	New PDH plant.
LG Chemical	Yeosu, South Korea	1.16 million mt/y	650,000 mt/y	Mid-Sept.	6 weeks	Scheduled maintenance.
Hyosung Vina Chemical	Vung Tau, Vietnam	-	600,000 mt/y	Early-Sept.	45 days	Scheduled maintenance for PDH.

CRACKER/PDH	LOCATION	ETHYLENE CAP	PROPYLENE CAP	START DATE	PERIOD	DETAILS
KPIC	Ulsan, South Korea	800,000 mt/y	510,000 mt/y	Sept. 16	Nov. 2	Scheduled maintenance.
Liaoning Kingfa	Panjin, north China	-	600,000 mt/y	End-Sept.	-	New PDH plant.
YNCC	Yeosu, South Korea	470,000 mt/y	240,000 mt/y	Oct. 1	Nov. 14	Scheduled maintenance.
Jiangsu Ruiheng	Lianyungang, east China	-	600,000 mt/y	Oct.	-	New PDH plant.
Sanjiang Chemical	Jiaxing, east China	1 million mt/y	500,000 mt/y	Q4	-	New cracker.
CNPC Jieyang	Guangdong, south China	1.2 million mt/y	600,000 mt/y	Q4	-	New cracker, can feed ethane, propane, naphtha.
(Update) Yanchang Chinagas	Jiangsu, east China	-	600,000 mt/y	Q4	-	Construction of new PDH plant has been completed, unit ready to begin trial run.
Grand Resource	Dongguan, south China	-	600,000 mt/y	Q4	-	New PDH plant.
Befar Group	Binzhou, north China	-	600,000 mt/y	Q4	-	New PDH plant. Completed construction end-July.
Formosa Plastics	Ningbo, east China	-	600,000 mt/y	July 2023 (estimate)	-	New PDH plant. Postponed from late-2021 to Oct. 2022. Likely to postpone further to 2023.
Rayong Olefins	Rayong, Thailand	900,000 mt/y	450,000 mt/y	Mid Sep	30-45 days	Fix technical issues for its cracker

(LPG commentary continued from page 3)

...(Shanghai) Holdings had earlier signed an agreement with a subsidiary of Shaanxi Yanchang Petroleum in end-2021 to supply the latter propane for its PDH plant in Taixing, as reported earlier.

In Southeast Asia, Thailand's consumption of LPG in July was at 443,500 mt, up 6.3% from 417,300 mt in June, according to data released by the Department of Energy Business of Thailand.

The country had imported 203,400 mt of LPG in the same month, up 21.2% from 167,900 mt the previous month.

The country observed an overall increase in demand across several oil products, and it was attributed to the easing of Covid-19 restrictions, according to market sources.

(Gasoline commentary continued from page 5)

The first parcel requires 35,000-37,000 mt for Sept. 14-16 delivery to Paradip, and the second parcel requires 30,000-32,000 mt for Sept. 18-20 delivery to Chennai port and Kochi port.

Meanwhile, Singapore onshore light distillates stocks for the week ended Aug. 31 fell 1.017 million bbls, or 5.86% on-week to a six-week high of 16.332 million bbls, Enterprise Singapore data shows. It was 23.91% higher than the same period in 2021.

Japan's ENEOS Shuts Larger of Its Two Naphtha Crackers in Kawasaki

Japan's ENEOS Corp. late last week shut down the larger of its two naphtha-fed crackers in Kawasaki, several market sources said.

ENEOS on August 25-26 took its 540,000 mt/yr cracker offline and the unplanned shutdown amid decreased regional cracker run

rates paved the way for a high-priced spot ethylene deal, they said.

"It is a fact that one of the crackers in Kawasaki has been shut down," an ENEOS spokesperson said in an emailed reply to questions, declining to disclose the cause of the outage or the expected duration of the shutdown.

The cracker could stay offline for two to four weeks, according to some market sources.

The cracker is an export-oriented unit and to fulfil contractual obligations, a spot ethylene deal was done at \$1,120/mt, more than \$200/mt above the current market level, several sources said.

Prolonged cracker run rate curtailments across northeast Asia have crimped the availability of spot material for prompt shipment, some added.

Spot ethylene closed the week ended August 25 at \$850-\$910/mt FOB northeast Asia, according to Chemical Market Analytics by OPIS.

At its Kawasaki site, ENEOS operates a second cracker with a capacity to produce 443,000 mt/yr of ethylene.

--Reporting by Trisha Huang, thuang@opisnet.com; Editing by Hanwei Wu, hww@opisnet.com

Asian Naphtha Struggles Amid Sluggish Petrochemical and Gasoline Demand

Asian naphtha prices dived from a week ago, dragged down not only by sluggish petrochemical orders downstream, but also by softening gasoline demand, which limited the amount of naphtha that could be blended into the gasoline stock.

CFR Japan naphtha price assessed by OPIS was at \$638.5/mt on August 31, down from \$688.75/mt a week ago, with front-month

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Singapore 018960To view OPIS customer notices and corrections, navigate here: <https://notices.opisnet.com/>, click on the second link, enter your subscription email address then you will then be sent a link to access the site**SUBSCRIPTION INFORMATION**If you would like to subscribe to OPIS Asia Naphtha & LPG Report, call +65 6922 4383 (Asia), 888.301.2645 (U.S. only), or email energyocs@opisnet.comFor complete methodology, visit www.opisnet.com/about/methodology

Brent down from \$101.24/mt to \$97.35/mt over the same period. As a result, Asian naphtha refining margin, or crack, fell from -\$63.625/mt to -\$91.625/mt, hovering around the lowest level since mid-June, OPIS data shows.

Some were expecting a healthy reforming spread between naphtha and 92 RON gasoline to drive more naphtha into the gasoline blending pool. But with the gasoline refining margin itself collapsing this week, such a blending move would be unattractive, according to market sources.

"It is difficult to find a home for naphtha really. I don't expect naphtha demand to be strong until gasoline rebounds from the prompt weakness," a Singapore-based oil analyst told OPIS.

Singapore 92 RON gasoline refining margin dropped to \$0.058/bbl on August 31, from \$10.232/bbl a week ago.

With summer driving season coming to an end, demand for gasoline in regional economies are heard to be lukewarm with many countries report healthy inventories, including Indonesia, largest gasoline importer in southeast Asia, market sources said.

Naphtha demand for cracker feedstock has been sluggish with

regional crackers are running on reduced rates over poor economics.

OPIS reported earlier that South Korea's Yeochun NCC Co. (YNCC) plans to keep running its three naphtha crackers in Yeosu at 80% in September, unchanged from August, because of margin concerns.

In Japan, ENEOS Corp. late last week shut down the larger of its two naphtha-fed crackers in Kawasaki, which could see the cracker offline for two to four weeks, according to market sources.

Taiwan's CPC Corp. also plans to reduce the operating rates at its two naphtha-fed crackers in Linyuan, Kaohsiung to 65% capacity in September from 80% in August, as OPIS reported.

In the meantime, CPC Corp issued a sell tender for 35,000 mt full range naphtha to be loaded over September 10 to 25 on FOB Kaohsiung basis.

--Reporting by Patrick Han, phan@opisnet.com; Editing by Carrie Ho, cho@opisnet.com

China Gas Completes Yanchang PDH Unit Construction

Jiangsu Yanchang China Gas Chemical Co. Ltd's new 600,000 mt/yr propane dehydrogenation (PDH) unit in Taixing city in the eastern Chinese province of Jiangsu has completed construction and is ready for trial run, according to a news release by the city's government on August 31.

"They are targeting to commission the PDH plant by end of this year," according to an industry source.

China Gas had earlier secured propane supply - which acts as the main feedstock for the PDH plant - via a term tender which was signed in end-2021, according to OPIS CMA records.

China Gas' subsidiary Petropower (Shanghai) Holdings had earlier signed an agreement with a subsidiary of Shaanxi Yanchang Petroleum to supply the latter propane for the PDH plant in Taixing, as reported earlier.

According to the agreement, Petropower will supply 720,000 mt/yr refrigerated propane to meet the requirements for the Taixing PDH project.

China Gas did not disclose further details about the project. But Petropower and Yanchang had earlier formed a joint venture (JV) to build a total 1.2 million mt/yr PDH capacity and 300,000 mt/yr polypropylene capacity at Taixing petrochemical park.

Petropower holds a 51% stake of the JV while Yanchang holds 49%, according to an environmental impact report of the project. Yanchang does not operate any other PDH unit, OPIS CMA data showed.

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Japan Could Save on Buying 20 LNG cargoes/Month With Nuclear Restart Plan

Japan could save on buying around 20 LNG cargoes each month by summer 2023 should Prime Minister (PM) Fumio Kishida's plan to revive more shuttered nuclear reactors is realized, LNG traders said.

An additional 10 reactors will need to be revived between now and that time if the PM's target of having a total of 17 nuclear reactors in use by then is implemented, the traders added, noting that each nuclear plant is roughly 1 GW in capacity.

Right now, the country has seven reactors in operations, three having passed safety reviews and could receive local governments' restart approvals soon, seven having passed safety reviews, and 10 still undergoing safety checks, according to the latest report on Japan's nuclear plant status on August 23 by the Agency for Natural Resources and Energy.

Kansai Electric's Mihama-3 reactor become the latest to rejoin the fleet after restarting this week following an unplanned maintenance last month due to water leaks, according to local Japanese media and a statement by the firm on August 29.

Japan - the world's second-largest LNG-consuming country in 2021 after China - had a total of 54 nuclear reactors, but most of these are still shut since the 2011 Fukushima disaster, during which a Tsunami caused by a 9.0-magnitude earthquake caused a meltdown at the prefecture's Daiichi nuclear power plant.

Public opinion was overwhelmingly against nuclear power after the accident, but this has started to shift this year as fuel and power prices soar following the start of the Ukraine war, traders said.

"Japanese public support's more than 60%, and it was the first time ever that support of nuclear power is starting to come over 50% after (the) Fukushima accident," said Nobuo Tanaka, the chair of the Innovation for Cool Earth Forum, in a video posted by U.S. news channel CNBC on August 17.

Despite this, analysts said that the rate of nuclear reactor restarts depends on plants passing safety reviews and on local communities agreeing to host the facilities without succumbing to a not-in-my-backyard (NIMBY) mentality.

"Public trust completely collapsed with Fukushima. The reopening of each nuclear plant needs the support of local governments and communities, as local governments can prevent plants from restarting," said Professor Haruko Satoh, Research Director of the IAFOR Research Centre of the Osaka School of International Public Policy.

"High energy prices following the Ukraine war may ease public opinion. I foresee more plants restarting, especially those that have been given the go-ahead by the Nuclear Regulation Authority and are not sitting on an earthquake fault line. But ultimately, local politics play a part in each case," she added.

Most of the restarts, however, will likely be on the western side of Japan's main island, away from earthquake fault lines that are next to the eastern side, analysts noted.

But these will not help much with power shortages on the more densely populated eastern side, as both sides of the island run on different electrical grid systems.

"The two grids run at different frequencies: the eastern one at 50Hz, and the western at 60 Hz. The frequency conversion capacity between the two zones, even with the recent addition of new HVDC connections, totals only 2,100 MW, limiting the amount of electricity that can be transmitted between both sides," said Dan Shulman, CEO of Tokyo-based energy consultancy Shulman Advisory.

Notwithstanding these limitations, any additional sources of power for the resource-poor country would still be much welcome, as Japanese utilities can swap LNG cargoes among themselves to improve optimization and gas-to-nuclear-switching, traders said.

Also, Japanese offtakers' troubles with Russia's 9.6 million mt/yr Sakhalin-2 LNG plant have brought home the need to diversify their power sources at a time when global gas and LNG supply is extremely tight and geopolitical alliances are complicating logistics.

On June 30, the Kremlin ordered the plant's ownership to be transferred to a Russian-government-owned entity, Sakhalinskaya Energija, putting the project's term buyers and existing stakeholders in a panic over their supply contracts and equity investments.

However, traders noted that recent developments largely point to term contracts being honored, helping the market breathe a sigh of relief. Some had earlier warned OPIS that any disruptions to Sakhalin-2's term LNG supply volumes, which are mostly booked by Japanese and South Korean end-users, will bring "chaos" to the Asian LNG markets.

Japan's top importer - utility and trading house Jera - confirmed to OPIS via email on August 29 that it had signed an updated Master Sales and Purchase Agreement (MSPA) with the new entity on August 25.

"Main terms are [the] same as those of the previous contract. We will not comment [on] further details due to confidentiality," said a Jera spokesperson.

Meanwhile, the Kremlin has confirmed that it was allowing the two Japanese stakeholders of Sakhalin-2, conglomerates Mitsui and Mitsubishi, to retain their stakes in the project under the new operator, Russian state media TASS reported this week.

All Japanese offtakers have either signed, or are on track to sign, updated MSPAs with Sakhalin-2 before their cargoes' scheduled loadings, two Japanese sources with knowledge of the matter said.

Failing to have a signed MSPA would prevent the buyers from getting their cargoes, traders warned.

--Reporting by Carrie Ho, cho@opisnet.com; Editing by Hanwei Wu, hwu@opisnet.com

India's HMEL Plans to Start Up 1.2 Mn mt/yr Dual-Feed Cracker in October

India's HPCL-Mittal Energy Ltd. (HMEL), operator of the 225,000 b/d Guru Gobind Singh Refinery in Bathinda, Punjab state, plans to commission its new dual-feed cracker in October, said a source familiar with the matter.

The cracker has a nameplate capacity of 1.2 million mt/yr of ethylene and 500,000 mt/yr of propylene and is designed to crack naphtha and gas.

New downstream polymers plants include a 1.2 million mt/yr polyethylene plant and a 500,000 mt/yr polypropylene unit.

At its Bathinda site, HMEL currently operates a 500,000 mt/yr PP plant that is fed by propylene produced at the refinery, the source

said.

HMEL is a joint venture between Hindustan Petroleum Corp. and Mittal Energy Investment Pte Ltd., Singapore.

--Reporting by Trisha Huang, thuang@opisnet.com; Editing by Hanwei Wu, hwu@opisnet.com

Keppel To Develop Singapore's First Hydrogen-Ready Power Plant

Singapore's Keppel Infrastructure plans to develop a 600 MW gas-fired power plant in the island nation after a financial investment decision (FID) was reached, the company said via a press release on August 30.

The Keppel Sakra Cogen Plant, to be located in the Sakra sector of Jurong Island, is estimated to cost S\$750 million (% 538m) and will be Singapore's hydrogen-ready power plant.

The advanced combined cycle gas turbine (CCGT) power plant will be running initially on natural gas as primary fuel, which is also designed to operate on fuels with 30% hydrogen content and has the capability of shifting to run entirely on hydrogen. The project will also produce steam, for use in industrial processes for energy and chemicals customers on Jurong Island, which houses the country's oil refineries and petrochemical complexes.

The project is expected to be completed in the first half of 2026 and will be the most efficient among the operating fleet in Singapore and will be able to save up to 220,000 mt per year of CO2 as compared to Singapore's average operating efficiency for equivalent power generated, Keppel said.

Keppel Infrastructure, through its wholly owned subsidiary Keppel Energy, has awarded an engineering, procurement, and construction (EPC) contract to a consortium comprising Mitsubishi Power Asia Pacific and Jurong Engineering for the construction of the plant.

Almost 40% of Singapore's carbon emissions are from the energy sector. The city state launched Green Plan 2030 in February 2021 which seeks to advance Singapore's national agenda on sustainable development with a key pillar focusing on decarbonizing electricity generation, Keppel added.

--Reporting by Patrick Han, phan@opisnet.com; Editing by Carrie Ho, cho@opisnet.com

Suez Canal Clears Blockage After Tanker Got Stuck Briefly

The Suez Canal, which was obstructed by an oil tanker that broke down, has been unblocked within hours, the Suez Canal Authority (SCA) confirmed on Thursday.

The rescue units and the SCA's five tugboats have successfully cleared, rescued and floated the 114,070 dwt 2016-built Aframax, the Affinity V, on Wednesday night after the oil tanker ran aground, said SCA Chairman Osama Rabie, in a press statement on September 1.

The oil tanker was stranded along the canal due to a technical failure of the ship's rudder that had caused the vessel to lose the ability to steer, the statement said.

The Affinity V was headed southbound of the Canal after loading a cargo from Sines, Portugal, with the Saudi Arabia's Red Sea port of Yanbu as its indicated discharge destination, said shipping analysts.

The impact of this incident is limited as it was resolved within five hours, unlike the previous blockage caused in same southern, single-line stretch of the by the 200,000dwt containership, the Ever Given, which ran aground in the Canal on March 23, 2021, disrupting global trade, they added.

Some 1,925 vessels transited the Suez Canal in April this year, according to the latest Suez Canal statistics from shipping agency Leth.

The Canal provides the shortest maritime route between Europe and India and is one of the world's most heavily used shipping lanes.

--Reporting by Thomas Cho, tcho@opisnet.com; Editing by Carrie Ho, cho@opisnet.com

QatarEnergy's Affiliates To Construct 1.2 MTPA Blue Ammonia Plant

QatarEnergy's affiliates, QatarEnergy Renewables Solutions and Qatar Fertiliser Company (QAFCO) signed agreements on Wednesday to construct a 1.2 million mt per annum (MTPA) blue ammonia production capacity facility, in Mesaieed Industrial city, said QatarEnergy in a press statement the same date.

The Ammonia-7 plant, which QatarEnergy claims to be the world's largest blue ammonia plant, is targeting to start operations in the first quarter of 2026 and will be operated by QAFCO as part of its integrated facilities.

Blue ammonia is produced when the carbon dioxide generated during conventional ammonia production, is captured, and stored. The product can then be used in power stations to produce low-carbon electricity, said QatarEnergy.

The project agreements, valued at around \$1 billion, cover the plant's engineering, procurement, and construction (EPC). The EPC contract was awarded to a consortium of ThssenKrupp and Consolidated Contractors Company (CCC), added QatarEnergy.

"We are also building on our unique position in the renewables and carbon capture and sequestration space, as well as on our ideal logistical capabilities and advantages to supply differentiated, low carbon products and fuels to the world," said Saad Sherida Al-Kaabi, President and CEO of QatarEnergy.

--Reporting by Thomas Cho, tcho@opisnet.com; Editing by Hanwei Wu, hwu@opisnet.com

ZIM Signs LNG Bunkering Agreement With Shell Worth Over \$1 Billion

International cargo shipping company Zim Integrated Shipping Services has signed a 10-year marine liquefied natural gas (LNG) sales and purchases agreement with Shell, according to a Zim press statement on August 31.

The agreement, valued at more than \$1 billion, will see the oil major supply

10 LNG-fueled vessels to be deployed on to Zim's Asia to US east coast (USEC) service route.

The ten 15,000 teu vessels are expected to enter service during 2023-2024 and will be transporting goods from China and South Korea to the USEC and the Caribbean, added Zim.

The shipping line expects LNG bunker fuel to emit around 20% less greenhouse gas (GHG) compared to conventional marine fuels.

By using LNG fuel on these ten container vessels, Zim estimated the GHG emissions savings to be the equivalent of having two zero-emissions vessels.

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