

# OILGRAM PRICE REPORT

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## China throughput to ease from 7-month highs as refineries set to go offline

- Six refineries to go offline in March-April
- PetroChina Feb run rates up 5 percentage points on month
- Shandong refiners to shut for maintenance from end-March

Singapore—China’s crude throughput in March is expected to ease from seven-month highs seen in February as refiners embark on a much-delayed maintenance spree after postponing them last year in the wake of COVID-19, a move that could put downward pressure on oil products availability.

About 50 million mt/year of refining capacity at six state-owned refineries—five from Sinopec and one from CNOOC—is expected to be shut over the March-April period, while May could also witness some maintenance, albeit at a relatively lower capacity level, latest industry data and information collected by S&P Global Platts showed.

As the heavy maintenance season kicks in, the March run rate is expected to ease from a seven-month high of 82.8% in February.

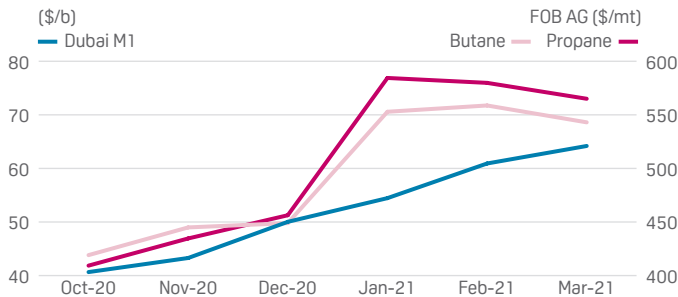
This could help ease the pressure on product export for some of Sinopec’s refineries from April onward, as planned exports for March are still high amid improving cracks in the region.

Sinopec’s Changling Petrochemical and Jinan Petrochemical was shut end-February for maintenance, with CNOOC’s Huizhou refinery expected to join from March 4. This new round of maintenance will be carried over into May, when two refiners of PetroChina, as well as Sinopec’s Cangzhou Petrochemical, will also join the bandwagon, taking another 18.5 million mt/year capacity offline.

“Many refineries postponed the maintenance plan in 2020 due to the COVID-19,” said an analyst.

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## MIDDLE EAST CRUDE CONTINUES TO FIRM AS LPGS MODERATE



Source: S&P Global Platts

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## NEWS HEADLINES

### US crude stocks expected higher as production rebounds, refinery outages linger

- Commercial crude stocks expected 1.3 million barrels higher
- Nearly 100% of shut in crude output restored
- Refinery utilization lingers below pre-storm levels

New York—US crude oil inventories likely climbed in the week ended Feb. 26 as crude production normalized but refinery runs remain stunted in the wake of severe winter weather in Texas earlier in the month, an S&P Global Platts analysis showed March 1.

### Crude retreats as market eyes OPEC+ quota increases, US supply return

- US stimulus bill advances to Senate
- OPEC+ likely to raise April output
- Nearly 100% of shut-in US crude output restored

New York—Crude oil futures settled lower following a volatile session March 1 amid expectations that OPEC would raise production quotas at its March 4 meeting.

### CERAWEEK: Jet fuel lagging global petroleum demand recovery

- Business travel to lag leisure: United
- Airlines use multi-pronged net-zero approach

As the impact of the coronavirus pandemic ebbs with the rollout of vaccines, global petroleum demand should return to 2019 levels by the end of this year, although jet fuel demand will lag that recovery, industry executives said March 1.

## MARKET ANALYSIS

### INTERNATIONAL CRUDE

- VLCC fixtures fail on North Sea-to-East run
- Chim Sao, Ruby premiums rise to 7-month high
- Nigeria becomes Turkey's second-biggest supplier

### Middle East OSP hikes expected

Middle East oil producers, including regional leader Saudi Arabia, are expected to hike official selling prices for their respective crude grades this month, although the final decision could revolve around the outcome of the key OPEC+ meet and demand cues from Asian economies, which continue to show mixed signals.

OSP differentials for April could see lighter grades raised by up to 50 cents/b from March while medium and heavier grades could see smaller changes, said market participants surveyed by S&P Global Platts.

"For Saudi grades, the lights may be up by 20-50 cents/b, medium unchanged and heavy cut by 10 cents/b. For ADNOC grades, the lights may be hiked by 50 cents/b and Upper Zakum by 15 cents/b," said another crude oil trader.

However, the real driver will be the outcome of the OPEC+ meeting scheduled for March 4 with an easing of supply cuts expected as oil prices rise to multi-month highs and improved COVID-19 vaccine administration rates bolsters demand outlook for the future, sources said.

"It's important to see [OPEC+] production levels first. If OPEC+ do not raise production then a hike in OSPs will not be reasonable," said a trader with a North Asian refinery.

As virus cases across the West ease and global crude stocks reduce further, oil prices have maintained their upward trajectory in recent weeks with the front-month cash Dubai assessment averaging \$60.86/b in February, a \$6.08/b increase month on month.

An increase in supplies by the OPEC+ meet is widely expected although the volume of supplies would be the deciding factor, traders said.

"All depends on the OPEC+ meet although theoretically OSPs should be hiked. Don't think they will cut supplies but depends how much they bring into the market," said a trader in Singapore.

While the OPEC+ meet's outcome is awaited, demand cues from Asia, specifically key regional economies of India, China, Japan and South Korea, will be important to drive buying activity for Middle East crudes.

"India is doing okay but not sure yet about China. Strict movement controls [are] in place, so product demand is low and inventories are high. Don't think they will be back for another month at least," said another trader with a North Asian refinery.

The cash Dubai premium over same-month Dubai futures spread – understood to be a key element in OSP calculations – rose to 69 cents/b in February from 48 cents/b in January, Platts data showed.

The uptick indicates that Middle East crude producers could raise their respective OSP differentials for April as compared to the March OSPs, sources said.

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## Lighter grade demand

Uptick in OSP differentials for lighter grades remains a strong possibility as buying preferences display a sharp uptick in volumes of lighter crude grades, traders said.

“Demand for lights has been healthy and [OSPs could be] up by 20 cents/b. Murban [trade activities were brisk] as the OSP was cheap,” said the second trader with the North Asian refinery.

“Medium [prices] should be up but considering demand, [the OSPs] may be maintained.”

Demand for lighter grades was evident as refiners China’s Rongsheng and Thailand’s IRPC bought 2 million barrels and 500,000 barrels of April-loading Murban crude, respectively.

Refining margins for light distillates surged in February with the second month 92 RON gasoline swap crack versus Dubai swap averaging \$6.42/b in the month, up from \$5.04/b in January, and the highest since February 2020 when it was \$7.48/b, Platts data showed.

While spot differentials for Murban and other lighter grades were trading at premiums, softening demand for medium and heavy grades lead to spot trade differentials flipping to discounts.

“Lights can go up by 10 cents/b as maximum demand was for Murban and Umm Lulu. Medium [grades] should roll over and heavy should drop as fuel oil cracks have been terrible,” said another trader in Singapore.

The second-month high sulfur fuel oil 380 CST swap crack to Dubai swap averaged minus \$3.89/b in February, compared with minus \$3.33/b in January, the lowest since May 2020 when it averaged minus \$4.21/b, Platts data showed.

## Middle East sours bullish

Benchmark cash Dubai surged amid simmering expectations about the outcome of the OPEC+ alliance’s upcoming meeting and the issuance of official selling prices by Middle East producers before trade for May-loading barrels commences.

S&P Global Platts assessed May cash Dubai at a premium of \$1.31/b to the same-month Dubai futures at close on March 1, hitting the highest level since June 29, 2020, when it was assessed at \$1.38/b.

April cash Oman was valued at a premium of \$1.32/b to front month Dubai futures.

The cash Dubai premium over same-month Dubai futures spread rose to an average of 69 cents/b in February from 48 cents/b in January, Platts data showed.

Substantial progress in combating the coronavirus pandemic through vaccine rollouts has resulted in a strengthening demand outlook for crude oil over the past few weeks, sources said.

Market participants are looking ahead to the March 4 OPEC+ meeting, during which the group will consider easing supply cuts.

Amid rising oil prices and a trajectory of recovery in global demand, the wider market expects a gradual rollback of OPEC+ production cuts.

“It’s hard to hold back [production] with the flat price at \$65,” said a trader in Singapore, adding that the extent of the rollback remains uncertain.

The focus also remains on the issuance of official selling prices by major oil producers. Considering firmer demand for lighter grades in the previous month, traders expect an increase in OSPs for lighter grades, while some market participants expect a rollover or cut in

OSPs for medium and heavy grades.

The Platts Market on Close assessment process on March 1 saw nine 25,000-barrel Dubai partials traded.

The Dubai partials were traded with BP, Reliance, Total and Unipet on the sell side and PetroChina, Koch, Lukoil and Gunvor on the buy side.

## Iran begins full output at Azar field

Iran has officially started full production at the 65,000 b/d Azar oil field, in the west of the country, straddling its border with Iraq, according to the project’s development director, speaking March 1 during a ceremony to mark the event.

The field, located in the western province of Ilam and adjoining the Badra field in Iraq, contains some 4.3 billion barrels of oil in place, of which 400 million barrels are exploitable over a 40-year span. The \$1.5 billion development, in the Anaran exploration block, has been beset by delays connected to the difficulty of finding international partners to join the project amid US sanctions on Iran.

Azar is being developed by the Sarvak Azar Engineering and Development Co. consortium set up by leading Iranian contractor Oil Industries and Engineering Co (OIEC) and the Oil Industry Pension Fund Investment Co. (OPIC), formed in 2012. It reached early production of 30,000 b/d in May 2017.

Iranian oil minister Bijan Zanganeh, who also spoke in the ceremony March 1, said Azar’s oil will be sent to export terminals or used domestically.

“So far, around 36 million barrels of oil have been extracted from this oil field and [its products] brought us back \$1.6 billion,” Zanganeh said.

“Also the associated gas will be used in the under-construction NGL 3100 plant. From there, a part of the gas will be injected into the national gas grid,” he added.

“Right now, we are in a good position in comparison with the neighbors,” Zanganeh said, pointing to current 400,000 b/d of oil production from the West Karun region.

Azar’s light oil has an API of around 33, Keyvan Yarahmadi, the field’s development director, said during the televised inauguration.

“The investment made in this field amounted to Eur1.257 billion... most of which was provided from the National Development Fund,” he said.

The director said negotiations are also underway to finalize a deal for development of the adjacent field Changouleh.

Front-end engineering and design work in the area started in 2008, with several international oil companies having been linked to the project at different times over the years.

## Iraq February federal exports climb

Iraq’s oil ministry said March 1 that its federal crude exports, excluding from the semi-autonomous Kurdish region, rose 3.2% in February to 2.96 million b/d, from 2.868 million b/d in January.

The total from OPEC’s second-biggest producer included 2.825 million b/d from southern terminals on the Persian Gulf, up 2% from January, and 135,000 b/d from Kirkuk shipped through the Turkish port of Ceyhan, up from 98,000 b/d in January, the data showed. Shipments of heavy Qayara oil from the southern port of Khor al-Zubair and via trucks to Jordan remain suspended.

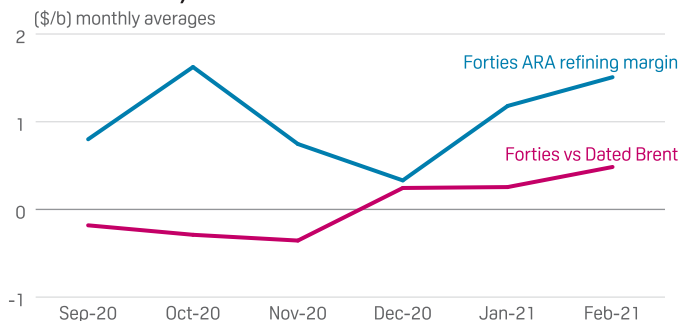
Iraq's production quota under the supply accord between OPEC and its allies is 3.857 million b/d for January-March. In January, the total exports came to 3.265 million b/d as a 0.8% rise in federally controlled exports was more than offset by a 10.2% decline in Kurdish exports.

The Basrah Medium grade introduced in January had shipments of 1 million b/d, or 35% of the total Gulf terminals exports, up from 32% in January. The Basrah Light grade remained most popular, with exports of 1.013 million b/d, while Basrah Heavy oil grade exports were 812,000 b/d.

Data also showed that stocks in the southern tank farm increased by 600,000 barrels during February to 4.2 million barrels.

According to the oil ministry, Iraq earned \$5.027 billion in oil revenue in February, up from \$4.739 billion in January. Its crude sold for an average of \$60.33/b, up from \$53.294/b in January.

### FORTIES MARGINS, PREMIUM BULLISH IN ARA



Margin data reflects the difference between a crude's netback and its spot price. Netbacks are based on crude yields, which are calculated by applying S&P Global Platts product price assessments to yield formulas designed by Turner, Mason & Co.

Source: S&P Global Platts

### North Sea-to-East VLCCs fail to materialize

North Sea crude oil continued to struggle finding buyers in the East despite low freight rates, with several fixtures reported having failed and cargoes having withdrawn on the VLCC route heading East.

The Maran Ariadne and the Antigone, charterers by ST Shipping and Litasco, were reported having failed amid lackluster buying demand.

A second ST cargo from Skaw was reported to have withdrawn without fixing on March 1, with market participants citing poor end-user demand and limited selling options.

"It is tempting to put a VLCC on subjects due to the cost efficiency and the low freight rates," a first VLCC broker said. "However, large parcels are struggling to sell East despite the cheap freight."

The last fixture reported on the North Sea-to-East run was reported at \$4.05 million by Equinor with the New Pioneer, and the Hound Point-to-East run was assessed at \$4.05 million on Feb. 26. This represents a 32.5% decrease year-on-year, when the route was assessed at \$6 million on Feb. 26, 2020.

"Forties and Johan Sverdrup are selling better into Asia," a second broker reported. "The two VLCC tankers that failed in the East were supposed to load at Skaw with primarily Urals grades."

While Forties and Johan Sverdrup typically clear to Asia, the grades had been seeing muted demand as a result of the refinery maintenance and turnaround season in the region.

Demand for end-March and April-loading North Sea barrels is expected to pick up as these would land in Asia after the turnaround season.

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## Urals demand slows

Russian Urals demand weakened March 1 on slow fundamentals and over-dependence on local demand weighed on differentials.

Tradable value for Northwest European Urals grades was heard around dated Brent minus \$2.10/b.

This came after Surgut tenders sold at higher differentials

Feb. 26, with traders suggesting an overvaluation as market indications failed to support those pricing levels.

Demand for Ural sour grades in Europe remained weak with limited local demand available and increased competition from alternative grades. "Not much has

changed in terms of fundamentals still [being] weak. There are unsold cargoes as early as March 10 and the problem is there is no demand. I offered a cargo below

Surgut tenders and had no luck," said one trader.

A PKN tender was also heard to have been awarded for March loading 12-16 with traders reporting a buying price around Dated Brent minus \$2.20/b.

In the Platts Market on Close assessment process, Trafigura offered a 100,000 mt cargo, basis CIF Rotterdam, loading March 11-15, down to Dated Brent minus

\$2.35/b, which was left outstanding at the end of the MOC.

The spread between Northwest European Urals crude and crude loading out of the Black Sea port of Novorossiisk was heard at 35-40 cents/b with traders highlighting low interest on Black Sea exports.

The lack of external demand has seen Urals' pricing differential fall to April lows with market expectations remaining weak.

Traders continued to point to eastern demand as the key driver of any improvement of values. "Dated strength [is] still not allowing for eastern arb," said the trader.

## CPC Blend sees support

Kazakhstan's CPC Blend was heard recovering as traders pointed to consolidation and support at dated Brent minus \$2.50-2.60/b, with offers reported at minus \$2.10/b.

Cargoes were also reported to have headed east as differentials for the sweet crude grade continued to trade at close to yearly lows.

Most sweet Mediterranean grades were heard to be available with outstanding March cargoes for CPC Blend as well as Azerbaijan's Azeri Light and Libya's Es Sider.

Russia's Siberian light grade was also heard weakening as Med demand slowed, with March loading cargoes up sharply on February.

In other news, Libya's National Oil Corp. reduced most of its official selling prices for its export grades in March from the previous month, the state producer said in an email to S&P Global Platts March 1. Ten of the 12 crude grades that the country's exports will see a 30 to 60 cents/b fall month on month, it said.

Both Libya's light and heavy grades will see some changes in the month with its main grade, Es Sider, seeing the biggest change. Es Sider will fall to a discount of \$2/b to Dated Brent, its lowest OSP level since November 2020. Amna grade will also see a fall of 50 cents/b to a discount of \$1.85/b to Dated Brent. The sweet El-Sharara grade will see a fall of 45 cents/b to a discount of 95 cents/b to Dated Brent. The NOC is now planning the development and expansion of the country's oil complex as Libya looks to return to stability.

## Angola's April loadings up slightly

Average crude loadings for Angola's finalized April schedule are 1.22 million b/d across 38 cargoes totaling 36.54 million barrels, slightly higher than the provisional program, according to a copy of the schedule seen by S&P Global Platts March 1.

In changes to the provisional schedule, one cargo of Mostarda was added and there were date changes for 23 cargoes across multiple grades.

The number of cargoes of CLOV, Mostarda, Nemba and Plutonio is set to increase month on month, while the number of Cabinda, Hungo and Kissanje is set to fall.

April loadings are set to increase 74,285 b/d on March. In March, 37 cargoes are set to load for a total of 35.45 million barrels. Sonangol – Angola's state oil company – is set to load 14 cargoes in April, up from 13 in the provisional schedule.

## Turkey's December imports tank 20.7% on year

Turkish crude imports in December fell sharply both year on year and month on month as refiners anticipated falling product demand with further restrictions in response to the second wave of COVID-19 infections on the cards, data from Turkey's energy regulator EPDK shows

Crude imports averaged 482,980 b/d in December, down 20.7% year on year and 23.2% from November, the data shows.

The sharp fall was caused as the bigger of Turkey's two refiners, Tupras, saw its own imports drop 40.4% month on month and 34.3% year on year to 275,319 b/d.

Tupras said in December that it would shut its 220,000 b/d Izmir refinery for maintenance during January and February, having apparently timed the closure to coincide with anticipated low product demand due to lockdown restrictions.

Imports by Turkey's other refiner, STAR, averaged 207,661 b/d in January, up 9.3% year on year and 24.4% from November when imports dropped sharply.

Monthly imports by both of Turkey's refiners varied during 2020 as they tried to balance fluctuating demand for different products.

## Rising Nigeria volumes

Iraq remained Turkey's main crude supplier in December, accounting for 24.0% of imports, down from 29.0% in November and and the 40.2% in December 2019.

Nigeria became Turkey's second-biggest supplier for the first time, accounting for 20.2% of imports, overtaking Kazakhstan from the previous month and Russia from a year earlier.

By volume, Iraq supplied 116,075 b/d, down 36.4% month on month and 52.6% year on year. Nigeria supplied 97,538 b/d, up sharply from 13,753 b/d in November and just 2,667 b/d in December 2019.

Imports from Russia, which has been among Turkey's biggest crude suppliers in recent years, averaged just 31,636 b/d, down 64.4% from November and 85.5% year on year, the data showed.

Otherwise December saw Turkey import crude from regular suppliers Norway, Saudi Arabia, Kazakhstan and Libya.

No imports were reported from Turkmenistan, which has been a regular supplier for several years, delivering volumes in eight months during 2020.

Turkey's refined product imports in December totaled 0.785 million mt, down 21.4% from November and 26.4% from December 2019, the data showed.

Diesel accounted for the majority of imports at 0.612 million mt, down 17.7% month on month and down 24.7% year on year.

The bulk of the diesel was supplied by Russia (221,253 mt), India (155,092 mt), Israel (108,424 mt) and Greece (86,624 mt).

Other imports included small volumes of fuel oil and marine diesel and 131,518 mt of "other" products believed to be naphtha imported as an intermediate product by Tupras, down 24.5% month on month and 32.3% year on year.

## Petronas raises MCO

State-owned Petronas has raised the Malaysian crude oil, or MCO, official selling price for a basket of crude grades loaded in February by \$7.83/b month on month to \$64.92/b, the company said in a notice March 1.

Last month, Petronas set the February MCO OSP differential at a premium of \$2.70/b to Platts Dated Brent crude assessments, up from \$2.25/b to Platts Dated Brent for January.

Dated Brent crude assessments averaged \$62.22/b in February, up \$7.38/b from January, S&P Global Platts data showed.

The MCO OSP alpha is the company's monthly adjustment factor that is based on the average premium or discount for Labuan, Miri Light, Kikeh and Kimanis spot cargoes traded on a Platts Dated Brent crude assessment basis, the average premium or discount of the grades as quoted by various price reporting agencies during the month, and the views of Petronas' customers on the price adjustment factor.

Malaysian crude grades that are not in the basket are set at a differential to the MCO OSP.

Last month, Petronas set the February price differential for Tapis at a discount of \$1.24/b against the MCO OSP, equivalent to \$63.68/b, according to the company's notice March 1.

## Vietnamese spot premiums at multi-month highs

Resilient fuel oil and middle distillate cracks have propelled Vietnamese crude oil cash premiums further north amid limited supply availability, as the number of offer tenders for April-loading barrels edged lower on the month, market sources told S&P Global Platts.

Spot premiums for Chim Sao and Ruby crude oil grades have risen by around 50 cents/b on the month to a range of between low-high \$2s/b against Platts Dated Brent crude assessments, FOB – the highest since September-loading barrels were traded in July, Platts data showed.

Vietnam's PetroVietnam Oil was heard to have awarded one 300,000 barrel cargo of Chim Sao crude for April 3-7 loading to oil major Shell at high \$2s/b to Platts Dated Brent crude assessments, on an FOB basis, according to traders.

The state-owned oil and gas company has also sold one 300,000-barrel cargo of Ruby crude for loading over April 11-18, also to Shell, at premium of low- to mid-\$2s/b to Platts Dated Brent crude assessments, FOB, through a tender that closed on Feb. 19, with validity till Feb. 26, traders said.

PV Oil last sold a 300,000-barrel cargo of Chim Sao crude for

loading over March 12-16 to an oil major at a premium of over \$2/b to Platts Dated Brent crude assessments, FOB, while a March 4-11 loading Ruby crude was last sold to Vietnam's Binh Son Refining at a premium of around \$2/b to Platts Dated Brent crude assessments, FOB.

Traders indicated that strong fuel oil cracks coupled with fewer Vietnamese crude cargoes offered in the spot market for April-loading have boosted premiums for these regional grades.

"The number of Vietnamese tenders for the April trading cycle may be lesser on the month which could support premiums [for Vietnamese crude grades]," said a Singapore-based crude oil trader.

In addition, the higher yield of residual fuel in Vietnamese crude oil grades, compared with Malaysian crudes, have made it more valuable to refiners as the strength for low sulfur fuel oil cracks surpassed the strength seen for middle distillates, traders said.

Second month marine fuel 0.5% swap crack versus Dubai swap averaged \$10.40/b for February, up from \$8.46/b for the whole of January – the highest since February 2020, Platts data showed.

Apart from Vietnam's Chim Sao and Ruby crude, Bunga Kekwa and Bunga Orkid crude oil grades, which have higher mercury content, were also heard to have traded at higher premiums.

PV Oil was heard to have sold 300,000 barrels of April 7-13 loading Bunga Kekwa cargo while Malaysia's Petronas was heard to have sold a similar sized cargo of Bunga Orkid for April 17-23 loading at a premium of low \$1s/b and a premium of low- to mid-\$2s/b to Platts Dated Brent assessments, FOB respectively. Both cargoes were heard sold to end-users in Thailand.

PV Oil was last heard to have sold 300,000 barrels of Bunga Orkid crude for March 11-17 loading to Petraco at a premium of around 50 cents/b to Dated Brent, according to a trade source.

## Malaysian premiums resilient

Spot premiums of Malaysian crude oil for April-loading continued to receive support from healthy middle distillate cracks and a shorter loading program, although competition from arbitrage barrels and a widening spread between Brent and Dubai crude oil benchmarks could have capped premiums of the largely middle distillate-rich crude oil grades from going much higher, traders said.

Traders indicated that an April-loading Kimanis cargo was sold to an end-user at a premium of around mid \$2s/b to Platts Dated Brent crude assessments, FOB, while Trafigura sold an April-loading Labuan cargo to Thailand at \$1.80/b to Platts Dated Brent crude assessments, FOB, according to sources.

In comparison, March-loading Kimanis cargoes were heard sold to both end-users and trading houses at premiums of below \$2/b to Platts Dated Brent crude assessments, FOB while March-loading Labuan crude cargoes were heard traded at premiums of between high \$1s/b to mid-\$2s/b to Dated Brent.

Cash premiums rise as gasoil swap crack versus Dubai crude swap averaged \$7.57/b in February, up from \$6.05/b in January and the highest since March 2020, when it averaged \$9.22/b, while jet fuel swap crack versus Dubai averaged at \$5.39/b in February – the highest since February 2020, Platts data showed.

Moreover, the market witnessed a slightly shorter loading program for Kimanis crude in April with seven cargoes scheduled for April loading, compared with nine the month before, sources said.

However, Malaysian crude oil grades continue to face competition from arbitrage West African crude cargoes, while rising benchmark Brent crude price erodes the competitiveness of the Brent-linked crude oil grades, traders said.

Brent-Dubai Exchange of Futures for Swap, a key measure of the relative strength of Brent-linked crudes versus Dubai-linked crudes, rose to a 15-month high of \$3.18/b on Feb. 23 and averaged at \$1.93/b for the whole of February, compared to 91 cents/b average in January, Platts data showed.

## AMERICAS CRUDE

- **US exports to Asia average lowest since Jan. 2019**
- **Exports out of LOOP lowest since April 2019**
- **US flows to China sharply lower as maintenance season nears**

### US flows to Asia fall to two year-low

US crude and condensate exports to Asia sunk to a two year low in February, as exports out of the Louisiana Offshore Oil Port, the only US port that can fully load a VLCC, collapsed following a record month in January, according to Kpler, a data intelligence company.

US crude and condensate flows to Asia averaged 777,191 b/d in February, down from nearly 1.72 million b/d in January and the lowest monthly average since January 2019, when US exports to Asia averaged 714,361 b/d, preliminary data from Kpler showed.

While US crude and condensate exports to the three largest Asian importers fell in February from January, flows to China slid to their lowest level since March, 2020, averaging 85,838 b/d in February, down from 390,277 b/d in January, according to Kpler data.

Chinese refineries are due to start heavy maintenance over the March-April period, with around 50 million mt/year of refining capacity at six state-owned firms expected to be shut, after some maintenance was postponed in 2020 following the corona virus pandemic.

Furthermore, despite an expected 667,000 b/d year-over-year increase in Chinese refinery runs in 2021, S&P Global Platts Analytics expects Chinese crude imports to increase just 72,000 b/d year-over-year in 2021, following heavy buying in 2020 that saw Chinese crude stocks building by around 350 million barrels, according to Platts Analytics.

While flow to China fell precipitously in February, US exports to South Korea and India, two major destinations for US crude exports, also decreased in February, though not as sharply. US exports to South Korea averaged 206,513 b/d in February, down from 420,274 b/d in January, while flows to India fell to 286,595 b/d in February, down from 483,972 b/d in January.

As an additional sign flows to Asia had fallen in February, exports of the LOOP collapsed in February to just 13,430 b/d, down from a monthly record of 455,036 b/d in January, and the lowest monthly average since April 2019, when no cargoes were exported out of LOOP for the month, according to Kpler.

Exports out of LOOP often go to destinations in Asia and tend to comprise more of medium sour grades such as Mars crude than light sweet grades.

The arbitrage incentive for Mars crude into China against Dubai crude averaged just 13 cents/b through February, down from a 60 cents/b incentive in January, according to the S&P Global Platts Crude Arbflo calculator.

For West Texas Intermediate from the Magellan East Houston terminal into Japan against local ESPO crude, the arbitrage incentive averaged minus \$1.11/b in February, down from a 40 cents/b incentive in January.

Still, even with tight arbitrage economics, export volumes are not expected to fall off greatly, according to one trader, who noted “so many players have sunk cost and volume just needs to hit the water.” Indeed, these sunk costs can keep export flows moving even when arbitrage opportunities are scant.

Looking ahead, S&P Global Platts Analytics expects US crude exports to range between 2 and 2.5 million b/d for most of 2021, with export volumes expected to “compress” following declines in US crude production, increasing refinery runs over the year – despite the recent fall on refinery runs following the deep Texas freeze, and falling inventories.

## GASOLINE

### NWE crack firms

The NWE market was slightly stronger March 1 as the market remained supported on export demand and the upcoming transition to summer-spec gasoline.

Sources have said the US Atlantic Coast and West Africa have been strong drivers of export demand. Similarly, bullish news surrounding the coronavirus vaccine rollout and return from lockdowns could further strengthen NWE market.

These forces have helped strengthen gasoline’s relationship to crude oil. The Northwest European front-month gasoline crack spread was assessed at \$9.80/b, up 50 cents/b on the day.

In the Mediterranean, sources said the market remained quiet. Lackluster buying interest had helped balance limited supplies, creating a thin sport market.

Elsewhere in the gasoline paper market, the March/April spread was assessed in a \$17/mt contango, while April/May was in a \$2.25/mt backwardation.

Meanwhile, the March Med/North gasoline differential – the spread between the March FOB Mediterranean 10 ppm cargo swap and the equivalent FOB Amsterdam-Rotterdam Eurobob barge – was assessed at \$6/mt, with April at minus \$5.75/mt.

In Asia, state-run Indian Oil Corp, was heard offering up to 37,000 mt of reformat for loading over March 10-16 from Paradip in a tender that also closes March 2, with same-day validity. IOC in a rare move last week, was heard to have sold 30,000 mt of 92 RON gasoline for loading over March 23-24 from Paradip.

According to market sources, the tender was concluded at a slight premium to the IOC formula, which takes the average of MOPS 92 RON gasoline assessments and Argus Singapore 92 RON gasoline assessments, on an FOB basis.

## DIESEL

### NWE Med/North spread narrows

The spread between CIF Mediterranean and CIF Northwest Europe ultra low sulfur diesel cargoes hit its lowest level in six months Feb. 26, with the Med assessed at a 25 cent/mt discount to Northwest Europe, when it typically prices at a premium.

The Mediterranean ULSD market weakened steadily throughout February, with traders reporting ample supply despite closed import arbitrages and little buying interest for cargoes as demand remained hampered by coronavirus restrictions.

CIF Med ULSD cargo premiums fell \$3.25/mt over the course of February, to be assessed at a \$2/mt premium to front-month ICE LSGO futures Feb. 26, while CIF NWE cargoes were assessed at \$2.25/mt Feb. 1 and Feb. 26.

Supply was heard to be particularly ample in the east of the region, while the western Mediterranean was better balanced due to some demand from Spain and Morocco in the absence of US Gulf Coast cargoes.

Looking to March, one trader said that demand “couldn’t be worse than in February,” when there was no rush to sell or buy and ample supply of regional barrels available.

March loading programs from the Black Sea are unlikely to provide any direction to the market, with exports from Tuapse set to be unchanged from February at 310,500 mt, according to a copy of the loading schedule seen by S&P Global Platts March 1.

The spread between CIF Med and CIF NWE ULSD cargoes was last assessed lower at minus 50 cents/mt Sept. 1, 2020.

### EUROPEAN MED-NORTH ULSD SPREAD TIGHTENS



Source: S&P Global Platts

US Midwest diesel markets continued to jump to begin the week, with Group 3 X grade reaching an over five-year high.

Group 3's diesel stocks remained low following recent subfreezing temperatures in much of the US, which has continued to bolster the market.

“Group is insane, inventories have just plummeted,” one Midwest trader said.

S&P Global Platts assessed X grade at the NYMEX April ULSD futures contract plus 17.25 cents/gal, up 6.50 cents/gal on the day.

This marks the strongest X grade has been since Nov. 13, 2015, when it was assessed at prompt-month futures plus 17.50 cents/gal.

Further north in Chicago, pipeline diesel rose to a four-month high on March 1. Platts assessed the market at April futures plus 8 cents/gal, up 2.25 cents/gal day on day. The market was last seen stronger on Nov. 9, 2020, when Platts assessed it at prompt-month futures plus 10.75 cents/gal.

Buckeye Complex ULSD rose 1.50 cents/gal to be assessed at April futures plus 8 cents/gal as well. BCX ULSD was last seen stronger on Nov. 10, 2020, when it was assessed at prompt-month futures plus 8.75 cents/gal.

Wolverine Pipeline ULSD was also assessed at April futures plus 8 cents/gal, up 2 cents/gal on the day.

On the Gulf Coast, diesel jumped on March 1, rising to regain ground lost late last week.

Platts assessed ULSD on the Gulf Coast at April futures minus 2 cents/gal, up 65 points/gal.

On the Atlantic Coast, diesel markets softened after reaching multimonth highs to end-February.

Platts assessed ULSD off the Colonial Pipeline at April futures plus 3.15 cents/gal, down 50 points/gal day on day.

ULSD in both the Buckeye Pipeline and barge fell 85 points/gal to be assessed at April futures minus 10 points/gal.

### Primorsk loadings to increase, ex-Tuapse steady

European markets were steady March 1 as new loading programs from Russian ports gave little direction to the market, with export volumes broadly stable on the month.

Monthly exports of ULSD from the Russian Black Sea port of Tuapse are set to be unchanged at 310,500 mt in March, according to a copy of the loading program seen by S&P Global Platts on the day, giving no direction to the Mediterranean market, which is currently slightly long due to limited demand, sources said.

In Northwest Europe, the Primorsk program is set to be around 3% higher on the month at 1.63 million mt in March, according to traders, some of whom thought the market may not be able to absorb all of the volumes, with suppliers already keen to shed length into traditional shorts such as Germany.

With no real change in demand for private road transport, traders were hoping for an uptick in demand from industry.

“We are hoping for and already starting to see a bit of agriculture demand, with the weather changing and farming season started,” one trader said, adding that this type of consumer is less sensitive to high flat prices, “so we see a boost there.”

ICE LSGO futures weakened slightly March 1, with the front-month contract down \$5.25/mt at \$526.50/mt.

The prompt spread remained in a 75 cents/mt contango, unchanged on the day.

In the barge market, there was little demand for ULSD barges loading in the Amsterdam-Rotterdam-Antwerp hub due to German refineries offering at competitive prices, while there were lots of offers at the hub, according to a second trader.



## MARINE FUEL

### S Korea's March supply similar to February

South Korea's 0.5% sulfur bunker fuel supply volume in March is expected to remain similar to February, at around 500,000 mt, industry sources told S&P Global Platts March 1.

The country's largest refiner SK Energy will supply similar volume of bunker fuel in March even though it is going to shut its vacuum residue desulfurization unit, a company source said.

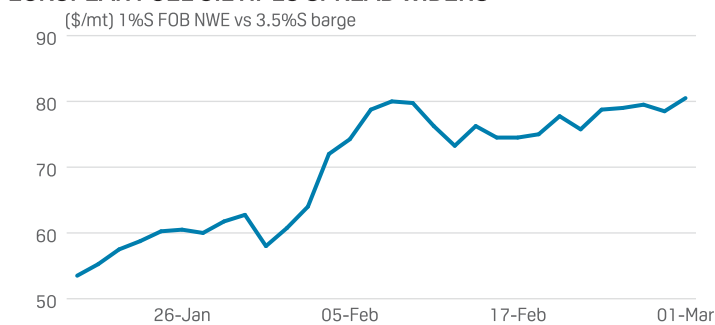
The company plans to shut its 40,000 b/d vacuum residue desulfurization unit at 840,000 b/d Ulsan refinery from March 19 to April 21 for maintenance, Platts reported previously.

SK Energy will cut production of bunker fuel with maximum 0.5% sulfur in March, but the company bought an MR-sized for March-arrival so that it can maintain the sales volume at around 200,000 mt, market sources said.

Other refiners are also likely to maintain their supply volumes, market sources said. Hyundai Oilbank will sell about 150,000 mt in March, while S-Oil's 0.5% sulfur bunker supply volume is about 100,000 mt for the month, the sources said.

Meanwhile, GS Caltex is going to supply about 50,000 mt of 0.5% sulfur bunker fuel in March, including 20,000 mt of imported fuel, said a company source.

### EUROPEAN FUEL OIL HI-LO SPREAD WIDENS



Source: S&P Global Platts

### Demand picking up

Bunker demand in South Korea has started to pick up after the Lunar New Year holiday, traders said.

"Before the Lunar New Year, demand was quiet. But after that it picked up a bit," said a bunker trader.

South Korea's bunker demand weakened in mid-February due to the Lunar New Year holiday and high prices.

The country's marine fuel 0.5%S delivered bunker premium to FOB Singapore 10 ppm sulfur gasoil rose to \$63.51/mt, the highest since Jan. 28, 2020, Platts data showed.

"China is taking demand [from South Korea]," said a bunker trader.

The premium fell to \$10.62/mt on Feb. 26, as a result of weaker demand, according to Platts data.

### Lanka Marine start supplying 0.5%S

Bunker supplier Lanka Marine Services (Pvt) Ltd. has launched supply of 0.5% sulfur fuel oil at the Port of Hambantota, company

officials told S&P Global Platts March 1.

The company's barge MT Kumana is to supply marine fuels at Hambantota.

"The product is stored at the HIPG (Hambantota International Port of Group (Pvt) Ltd) terminal," company officials said. "Cargo imports are done by Sinopec Sri Lanka with whom LMS has entered into a strategic partnership,"

Hambantota is located at the southeastern tip of Sri Lanka, 8-12 nautical miles from the major East-West shipping route.

The first supply of International Maritime Organization-compliant fuel, 1,500 mt of 0.5%S marine fuel, was done by barge MT Kumana to a crude oil tanker registered in the Marshall Islands, LMS added.

In related supply news, Sri Lanka has approved a \$20 billion refinery project at Hambantota. The announcement follows the inauguration of a smaller refinery complex at the port, which has backing from the Oman Oil Company.

## JET

### Global flying capacity up 7.7% on week

Global flying capacity increased 7.7% on the week to 57.17 million seats in the week starting March 1, driven by a jump in northeast and southeast Asia capacity, according to aviation data company OAG.

Global flying capacity was 46.5% below January 2020 levels.

In Western Europe, seat capacity improved by 4.3% week on week to 4.27 million seats, meaning the region was at 22.7% of the level in January 2020, OAG data also showed.

However, this small increase in Europe capacity masks wide disparities, with France's scheduled seat capacity dropping 6.1% on week to 27.6% of January 2020 level, while Germany's capacity jumped 10% on the week to 15.1% of the January 2020 level, the UK's capacity rose 6.3% on the week to 12% of the January 2020 level and Spanish capacity edged 2.9% higher to 23.6% of the January 2020 level.

"Bizarrely, the United Kingdom, despite the latest threats of two weeks in a Premier Inn for travellers returning from 'red list' countries, has crept back into the top twenty global markets with a week on week 6% capacity increase; much of which has come from easyJet adding back 8,000 seats and some more capacity from Tui," wrote OAG senior analyst John Grant in his weekly blog.

Among the biggest airline markets, the strongest week-on-week increase was seen in southeast Asia, with a 18% jump in scheduled seat capacity to 45.4% of January 2020 levels, while northeast Asia saw capacity rise 11% to 74.6% of the January 2020 level and North America's capacity ticked 6.4% higher to 59.7% of the January 2020 level.

"News of a possible date for unhindered international travel from the UK last Monday resulted in record levels of booking activity throughout the week, and hoteliers throughout Europe smiled at the thought of tourists returning with stored up cash to spend," OAG's Grant said. "We are still some ten weeks away from that freedom but the change in mindset is amazing, it's incredible what hope can do for people and the airline industry!" he added.

UK Prime Minister Boris Johnson unveiled on Feb. 22 plans for a progressive easing out of England's third lockdown, including a

review of international leisure travel restrictions in April for a potential reopening to some destinations from May 17 at the earliest, and the lifting of all social restrictions within England on June 21.

## Asia Pacific passenger traffic plunges

Asia Pacific air passenger traffic plunged 96.1% on the year in January, as the spread of new COVID-19 variants forced local governments to tighten border controls and travel restrictions, keeping flight operations depressed, data released by Association of Asia Pacific Airlines showed March 1.

According to the AAPA, only 1.3 million international passengers were carried by Asia Pacific airlines in January, a mere 3.9% of the 33.5 million recorded in the same month last year.

AAPA added that offered seat capacity was 12.1% of the January 2020 volume, while the international passenger load factor averaged 27% for the month, a significant 54 percentage point decline from the 81% achieved in the corresponding month last year, when traffic volumes were still relatively unaffected by the pandemic.

“Renewed efforts to contain COVID-19 through lockdowns and border restrictions have again affected international passenger demand, which remains close to a standstill,” AAPA Director General Subhas Menon said, adding that the uneven roll-out of vaccinations is delaying the full reopening of borders.

In contrast, a recovery in the global manufacturing sector has continued to lend support to the air cargo market.

In January 2021, air cargo demand – as measured in freight tonne kilometres – recorded a marginal increase of 0.3%, the first year-on-year growth in many months, partly boosted by higher demand for air shipments ahead of the Lunar New Year celebrations. AAPA also said that a decline in offered freight capacity, which fell 25% on the year as a result of a drop in passenger bellyhold space, boosted the international freight load factor to an average of 71.6%, an 18 percentage point increase compared to the year-ago period.

Looking ahead, Menon said the aviation industry and its stakeholders are working towards sustained resumption of air travel, which include contactless digitized tools and passenger facilitation protocols.

“The Asia Pacific aviation industry is committed to playing its part in the COVID-19 pandemic, through the carriage of time-sensitive cargo supplies especially vaccines, and the safe repatriation of residents,” Menon said.

According to the latest report by the International Air Travel Association on Feb. 24, 2021 has seen a weak start due to government-mandated travel restrictions, and that airlines are now not expected to be cash positive until 2022.

“With governments having tightening border restrictions, 2021 is shaping up to be a much tougher year than previously expected. Our best-case scenario sees airlines burning through \$75 billion in cash this year,” IATA added.

## Prices in limbo

In January, the FOB Singapore cash differential remained in negative territory and was assessed at a monthly average of minus 25 cents/b to the Mean of Platts Singapore jet fuel/kerosene assessment. This marked a decline of 11 cents/b, or 83.5%, month on month, S&P Global Platts data showed.

In the derivatives market, the M1/M2 timespread remained in a contango structure of minus 21 cents/b at the 0830 GMT Asian close Feb. 26. A contango structure indicates that jet fuel prices are weaker and unable to command higher prices at the prompt.

According to Platts data, the market structure was last seen in a backwardated structure on Jan. 31, 2020 at plus 48 cents/b.

## FEEDSTOCKS

### VGO loadings from Russia's Tuapse flab

Vacuum gasoil exports from the Russian Black Sea port of Tuapse will consist of four cargoes of 30,000 mt each in March, unchanged from February, according to a copy of the program seen by S&P Global Platts March 1.

The first cargo is to be loaded over March 2-3, the second over March 11-12, the third March 20-21 and the fourth March 29-30.

All four will be shared between Gunvor, Petrocas and Tupras, and the nominated vessel for all four cargoes is the Henrietta Maersk, or a substitute.

The Tuapse refinery, owned by state-controlled Rosneft, produces feedstock such as fuel oil, naphtha and VGO for export, rather than finished-grade products.

Cargoes of European high sulfur gasoil were higher last week in the S&P Global Platts Market on Close assessment process, despite refinery outages on the US Gulf Coast. In fact, refinery outages have strengthened refined product margins around the world, which may have led to increased demand for VGO.

Traders have suggested that domestic European demand for feedstock derivative products like gasoline and diesel may now be a more significant factor in determining VGO values than US demand.

### Thai PTT to shut olefins plant for maintenance

Thailand's PTT Global Chemical (PTTGC) plans to shut its Olefins plant 3 for maintenance in September 2021, the company said in a filing to the Stock Exchange of Thailand.

The plant, which has an ethylene production capacity of 385,000 mt/year, will be shut for 39 days and restart around end-October or early-November, the company said.

The company's olefins plants utilization rate averaged 104% in the fourth quarter of 2020, and for the whole year of 2020, the average utilization rate was 97%, down from 102% in 2019, the company said.

Its feedstock usage ratio was 82% gas, 18% naphtha.

In its business outlook for 2021, the company said it expects its olefins plants utilization rate to be around 94% of capacity due to the planned shutdown of Olefins plant 3.

PTTGC expects its petrochemical margins to improve following the recovery in global economy this year and forecasts a paraxylene-naphtha spread of \$200-\$250/mt in 2021, and benzene-naphtha spread of \$100-\$130/mt this year.

PTTGC operates four olefins plants with an annual olefins production capacity of 2.988 million mt.

The company earlier this month started up a new naphtha-fed steam cracker in Map Ta Phut, which has an ethylene production capacity of 500,000 mt/year and propylene capacity of 250,000 mt/year,

Platts reported previously.

This cracker, which uses naphtha and LPG as major feedstocks, will take its total olefins production capacity to 3.738 million mt/year.

## GAS LIQUIDS

### Aramco raises March CPs

Saudi Aramco set its March propane term contract price at \$625/mt, up \$20/mt from February, and butane CP at \$595/mt, up \$10/mt versus February, the company said Feb. 28.

The propane CP was set at the high end of traders' expectations of between \$590/mt and \$625/mt, though butane was set in the middle of expectations between \$590/mt and \$600/mt.

The March CPs are the ninth straight monthly increase for propane, and the eighth rise in a row for butane.

The March CP propane swap closed Feb. 26 at \$619/mt, with butane valued \$28/mt below that.

The higher March CPs came as Saudi Aramco announced acceptances of term LPG nominations for March loadings, with trade sources mixed on whether there were cancellations or delays and the volumes to be exported.

Some sources said there were no cuts or delays for March, estimating Saudi exports at above 550,000 mt, though not more than 600,000 mt. But others said there were cancellations of five to six cargoes, limiting total exports to around 520,000 mt.

Even at 600,000 mt, March exports are lower than before the voluntary Saudi Arabian crude production cuts, which shows there might have been cancellations to the nominations, trade sources said.

Saudi Aramco's LPG exports across the year were around 7.9 million to 8.1 million mt – or a monthly average of 667,000 mt – before it decided on the crude cuts, according to market estimates.

Sources said the mixed view on March acceptances could also be attributed to lifters and Saudi Aramco having agreed in advance on the volumes, even as acceptances of February nominations saw Aramco canceling cargoes nominated by seven to eight lifters, following Saudi Arabia's decision at the Jan. 5 OPEC+ meeting to cut oil output by 1 million b/d in both February and March.

Sources said overall Saudi Aramco's propane supply was tight, as the product is fed into the kingdom's petrochemical plants. But propane's tightness should ease from April, when the kingdom is expected to restore production, if it is confident that crude prices would not fall further, sources said.

Aramco had set the propane CP for March 2020 at \$430/mt and butane at \$480/mt, S&P Global Platts data showed.

Aramco's CPs – which set the price of propane and butane lifted from the Saudi Arabian ports of Yanbu, Ras Tanura and Ju'aymah under term supply contracts – are closely watched by the market as they tend to set a base level for pricing in most markets east of Suez.

### Sonatrach

Algeria's Sonatrach has released its LPG contract prices for March, with butane up \$25/mt month on month at \$535/mt and propane \$50/mt higher at \$545/mt, market sources said March 1.

Sonatrach mainly caters to LPG demand in the Mediterranean, but

also exports both on spot and contract basis to Northwest Europe and the Americas.

The company was not available to comment.

### Iran starts ethane recovery unit

Iran has launched a major petrochemical feedstock plant in the southern Bushehr province at the Persian Gulf, home to its massive petrochemical farms.

The \$970 million Kangan ethane recovery plant will receive 21 million mt of natural gas from phase 12 of the offshore South Pars gas field.

Kangan Petro Refinery Co.'s products include 1.75 million mt of ethane, 1 million mt of propane, 500,000 butane and 250,000 mt of pentane on an annual basis. The products can earn the company \$1 billion per year.

"In the current Iranian year (the past 11 months) until today, we have inaugurated 12 big petrochemical projects," President Hassan Rouhani said in a televised event.

"Today's inauguration is worth a little less than Eur1 billion ... in the next Iranian year, petrochemical production capacity will reach 100 million mt."

Iran exported \$31 billion worth of non-oil goods in the current Iranian year (ending March 20), a big part of which were petrochemicals and steel, Rouhani said.

"In these years that we were facing economic war and imposed by sanctions, one of the areas that helped us was the petrochemical industry," he said.

The project, with 65% home-made equipment, has used at least 95 Iranian companies to supply its requirements. Domestic contractors and companies have carried out 100% of design, engineering and commissioning of the project.

The main investor of the project is a subsidiary of Oil Industry Pension Fund.

Executive operations of KPRC started in 2016 to process enriched gas in the first phase. Kangan's phase two involves building an olefin unit and production of light and heavy polyethylene to go on stream in 2022. This phase has reached around 45% progress.

**New petchem plant**

Separately, Iran has started construction of a Eur3.4 billion (\$4.1 billion) petrochemical plant in the Pars Special Economic Energy that will receive 2.5 million mt of combined gas/liquid feedstock including 900,000 mt of ethane, 250,000 mt of propane, 350,000 mt of butane as well as 315,000 mt of C3+ and 691,000 mt of C5+ cuts.

The Kian Petrochemical Co. complex accommodates an olefin plant alongside heavy poly ethylene, propylene oxide, butadiene, benzene, ethylene benzene and styrene monomer.

"Kian's olefin plant will annually produce more than 2 million mt of various petrochemicals," managing director of Parsian Oil and Gas Development Group or POGDG Vahid Mahmoudi, said in the televised ceremony. POGDG owns 60% of the plant and the rest belongs to Petro Farhang Holding.

France's Axens has provided detailed studies and market-oriented conceptual design and Germany's Linde has carried out basic design and engineering of the olefin plant as well as design of processing units, Mahmoudi said.

The products would value \$2.9 billion per annum.

According to state television, in the first phase, the Kian plant will produce 1.26 million mt of ethylene, 327,000 mt of propylene, 202,000 mt of benzene, 177,000 mt of butadiene and 45,000 of mazut. In the second phase, 265,000 mt of ethyl benzene/styrene monomer, 150,000 mt of propylene oxide, 150,000 normal butanol, 100,000 mt of 2-ethylehexanol and 25,000 mt of isobutanol.

## TANKERS

### Med dirty Handysizes continue climb

Fixing activity was reported across all loading regions West of Suez on March 1, with rates reported steady across shipping sizes except for the Handysizes in the Mediterranean, which continued to move up.

Two fixtures were reported done at w210 on the Black Sea-to-Mediterranean run, and market participants expected the market to continue to move up in the week start Feb. 28. The Black Sea-to-Mediterranean run was assessed up w25 points to w215 on March 1 amid fresh fixing activity.

The Baltic-to-UK Continent run basis 30,000 mt was assessed down w2.5 to w172.5 with Repsol reported repeating last done levels with a Scorpio ship.

The Aframax market was reported holding at w95 on the cross-UK continent run with two fixtures reported done at that level. Litasco was reported looking out of the Baltic and having received three offers for its cargoes above w90.

The Mediterranean market dropped w12.5 points as tonnage lists lengthened and fresh fixing activity from UML tested the levels. The Blue Prince was reported on subjects with UML at w120 from Ceyhan, and the Ceyhan-to-Mediterranean run was assessed down w12.5 points at w120.

"They had a lot of offers and the market was expected to drop as cargo supply was no longer supporting the freight rates," a broker said.

Fresh cargo activity was reported on the Suezmax market in the Mediterranean and West Africa. The Chios I was reported on subjects with Chevron on a CPC-to-South Korea run, but the rate was not reported by cut off time. From Libya, Unipec was reported looking for a cargo set to load Mar. 15.

"There are many candidates for that journey with the Eastern ballasters," a second broker said.

The Mediterranean-to-East run was assessed down \$100,000 to \$2.5 million amid lengthened tonnage lists.

Freight rates on the VLCC West Africa-to-East run continue to rangebound between w34 and w35, and the West Africa-to-East run was assessed stable at w34.5. From the North Sea, ST was reported having withdrawn its cargo on the STS Skaw-to-East run amid lackluster Eastern demand.

"Forties and Johan Sverdrup are selling better into Asia," a third broker said. "The two VLCC tankers that failed in the East were supposed to load at Skaw with primarily Urals grades."

### East of Suez LR1 rates bearish

The East of Suez LR1 tanker rates were slightly lower March 1 due to a lack of demand, which has raised the prospects for a fresh uptick in supply.

Several market participants were on the sidelines with South Korea closed for a public holiday. Unless more demand comes, the LR1 rates are expected to be under a downward pressure again.

"The LR1 rates are a bit soft again while the LR2s are stable," said a broker in Singapore. The next LR1 fixture is expected to be at a lower rate while there is a hope for a higher LR2, the broker said. "It is really a strange market," he said.

Among the outstanding LR1 cargoes, Total is seeking tonnage for March 11 naphtha loading on the Persian Gulf-Japan route, sources said. In another requirement, Vitol is seeking tonnage for March 5 diesel loading on the Bahrain-South Africa route, sources said.

There is a possibility of Total using its own LR1 to cover this requirement, another broker in Singapore. "The cargo is still there in the market as it did not get much interest last week," said a chartering source. Total executives could not be immediately reached for comment.

"As it is the beginning of the week, the market is "cautiously bullish", said a source with an LR owner.

The new month has already begun, a lot of cargoes for March loading are still not been shown in the market, the source said. Market participants are waiting for someone to set the next level, the source said.

Among the fixtures heard, an LR2 relet, the Bw Despina was placed on subjects by ATC at \$1.35 million for March 10 diesel loading on the PG-UKC route, sources said.

In the MRs, the owners are pushing for higher rates due to the ongoing rise in bunker prices but not everyone is succeeding.

"The rates are getting firmer but the bunker prices are high and so all [gains] get erased," said a source with an owner. At least the freight has increased, or else there will be huge losses. Among the fixtures heard, a to-be-nominated Nanjing MR was placed on subjects by BP at w142.5 for mid-March loading on the Muara-Australia route, sources said.

In another fixture, BP has placed an MR on subjects at w140 for loading on the Singapore-Australia route, while Chevron has chartered a Maersk ship at w139 for March 16 loading on the same route, they said.

Earlier, BP had placed the Klara on subjects at w145 for March 9 diesel loading on the Australia-USWC route, with an option to discharge in USWC at \$900,000, they added. BP has also taken the High Tide for March 9 diesel loading on the Japan-Australia route, they said.

## NEWS

### China throughput to ease from 7-month highs as refineries set to go offline [...from page 1](#)

In February, the average run rate at the four state-owned oil majors—Sinopec, PetroChina, CNOOC and Sinochem—recovered to around 82.8%, from 80.3% a month earlier, according to Platts data.

The February run rate was 17 percentage points higher from 66.4% seen in February 2020, when most refineries cut crude throughput as the initial spread of COVID-19 started to take a toll on oil products demand.

### PetroChina run rates in February

Average run rates at PetroChina have increased by about five percentage points on the month to 75% in February. This was mainly driven by the restart of PetroChina's Yunnan Petrochemical, which lifted throughput to 770,000 mt in February, up 18% from January levels.

In addition, PetroChina's Sichuan Petrochemical also raised run rates by about five percentage points on the month to 85% in February. Six other refineries, mostly in North China, also lifted run rates marginally—by about one to three percentage points from the previous month.

The four state-run oil majors planned to process a combined 7.39 million b/d of crude oil in February, accounting for 82.8% of their nameplate capacity of 8.86 million b/d. In comparison, the four oil majors had processed 7.11 million b/d of crude in January, or 80.3% of their combined nameplate capacity.

CNOOC has started to cut crude throughput at its 10 million mt/year Phase 2 project from the last week of February to prepare for the overall shutdown, according to a company source. This has led to a drop of one percentage point in run rate from January levels.

Data from 39 refineries were collected in February, same as January. These include 20 Sinopec refineries, 17 PetroChina refineries, CNOOC's Huizhou Petrochemical and Sinochem's Quanzhou Petrochemical refinery.

### Independents keep run rates steady

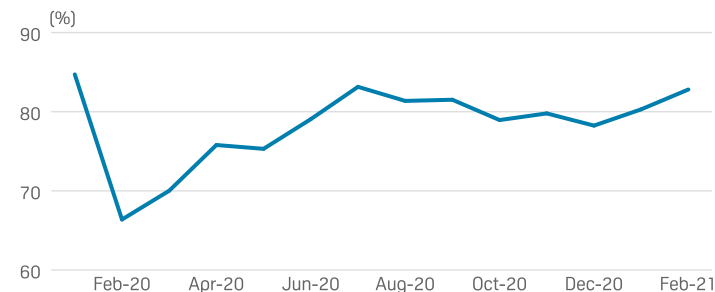
In contrast to state-owned oil majors, run rates at China's independent refineries are more or less stable. Run rates at China's two new greenfield refineries—Hengli Petrochemical (Dalian) Refinery and Zhejiang Petroleum & Chemical—have been broadly steady from January levels.

The 20 million mt/year Hengli refinery in Northeastern China has been operating at around 107%-108% capacity, with the ethylene unit running at around 110% capacity, according to a company source. ZPC's average utilization rate currently is around 70% at three of its CDUs.

Meanwhile, run rates at 45 small-sized private sector refineries in Shandong province have been more or less stable at around 73.8% in February, compared with 74.3% in January, according to local information provider JLC.

"Refining margins have improved a little bit compared with January, although production costs have increase due to higher crude prices," said a refinery source.

### RUN RATES AT CHINA'S STATE REFINERIES HAVE MAINTAINED UPWARD TREND IN EARLY 2021



Source: S&P Global Platts

### AVERAGE RUN RATES AT CHINA'S TOP REFINERS IN FEB 2021

	Feb-21	Feb-20	Jan-21	Jan-Feb 21	Jan-Feb 20
PetroChina	75%	66%	70%	72%	72%
Sinopec	86%	64%	85%	86%	77%
CNOOC	98%	86%	99%	98%	88%
Sinochem	100%	85%	101%	100%	85%
<b>Subtotal average</b>	<b>83%</b>	<b>66%</b>	<b>80%</b>	<b>81%</b>	<b>76%</b>
Hengli	107%	N/A	107%	N/A	N/A
ZPC	70%	N/A	70%	N/A	N/A
Shandong independents	74%	43.8%	74%	74%	54%

But run rates are likely to drop slightly from March, as ChemChina's Zhenghe Petrochemical has planned to shut for maintenance from March, while April would witness four more shutdowns, while May would witness one shutdown.

### State-owned refiners' scheduled maintenance starts in 2021

- PetroChina's 13 million mt/year Yunnan Petrochemical refinery restarted Jan. 25 following a near 50-day maintenance that began Dec. 5.
- Sinopec's Changling Petrochemical will be shut for a 55-day maintenance that began around Feb. 19.
- Sinopec's Jinan Petrochemical will shut the entire refinery for maintenance over late February-early April.
- Sinopec's Jiujiang Petrochemical will be shut for maintenance over March-April.
- CNOOC's Huizhou Petrochemical will shut the Phase 2 refinery of 10 million mt/year capacity for maintenance over March 4-April 22.
- Sinopec's Shanghai Petrochemical will shut a 6 million mt/year CDU and secondary units for maintenance over April-June, with a few secondary units starting in March.
- Sinopec's Cangzhou Petrochemical will shut the entire refinery for maintenance over May 10-June 30.
- Sinopec's Yanshan Petrochemical will be shut for maintenance over May-June.
- Sinopec's Yangtze Petrochemical will shut some secondary units for maintenance over March-April.
- PetroChina's Jilin Petrochemical will shut for maintenance over May-June.
- PetroChina's Fushun Petrochemical will be shut for an overall maintenance over June-July.
- Sinopec's Maoming Petrochemical will shut a 10 million mt/year CDU for maintenance over early-June until mid-July.
- Sinopec's Shijiazhuang Petrochemical will be shut for an overall maintenance over end-August until end-October.
- Sinopec's Guangzhou Petrochemical will shut a 8 million mt/year CDU for maintenance over mid-October-end November

— [Daisy Xu](#), [Sambit Mohanty](#)

### US crude stocks expected higher as production rebounds, refinery outages linger

- Commercial crude stocks expected 1.3 million barrels higher
- Nearly 100% of shut in crude output restored
- Refinery utilization lingers below pre-storm levels

*New York*—US crude oil inventories likely climbed in the week ended Feb. 26 as crude production normalized but refinery runs remain stunted in the wake of severe winter weather in Texas earlier in the

month, an S&P Global Platts analysis showed March 1.

Total commercial crude stocks likely climbed 1.3 million barrels to around 464.3 million barrels, analysts surveyed by Platts said. The build would put inventories 0.4% behind the five-year average of US Energy Information Administration data, opening the first deficit to the average since late March 2020.

Nearly 100% of the 4 million b/d of US crude production taken offline by severe winter weather last month had been restored as of March 1, S&P Global Platts Analytics data showed, as the return of seasonal temperatures thawed equipment and mitigated power grid disruptions.

US crude production is expected to average 10.7 million b/d during last week, according to Platts Analytics, up from a six-month low 9.7 million b/d averaged the week prior. Ahead of the storm, EIA data shows US production averaged around 10.8 million-11 million b/d.

In total, the winter storm trimmed February output by 825,000 b/d and full year 2021 output by 70,000 b/d, Platts Analytics data shows.

Blunting the crude build, US exports climbed to 2.64 million b/d last week, according to data from cFlow, Platts tradeflow software, up around 300,000 b/d from an EIA-reported 2.32 million b/d averaged the week prior.

But while producers were quick to restore lost output, regional refineries continue to see lingering impact from the storm.

Power outages and extreme low temperatures impacted all of Texas' 5.9 million b/d of refinery capacity last week, according to filings made with state environmental regulators, with as much as 4.4 million b/d of capacity fully offline Feb. 18.

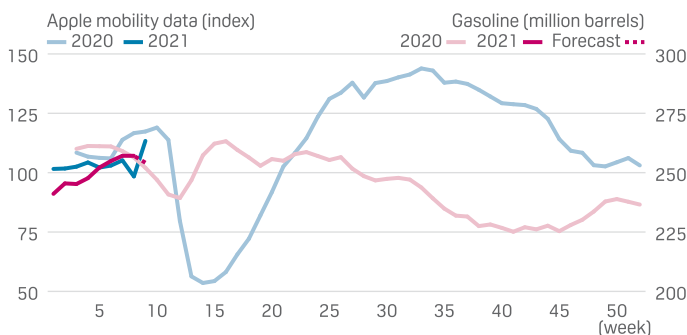
Operators had begun restarting more than 2.9 million b/d of refining capacity during the week ended Feb. 26, but a return to pre-storm capacity is likely to extend into mid-March, according to state filing data.

Total refinery utilization is expected to climb to around 72.6% of capacity, analysts said, up four percentage points from the week prior but still down 10.5 percentage points from pre-storm levels. At that level, runs would be nearly 17% behind normal.

Refined product inventories are expected to have declined amid the refinery slowdown.

Total gasoline stocks likely fell 2.9 million barrels to around 254.2 million barrels, analysts said, leaving storage levels around 0.5% above average. The expected draw would mark the largest one-week inventory decline since the week ended Sept. 18.

## WEEKLY US DRIVING ACTIVITY vs GASOLINE STOCKS



US driving activity based on Jan. 13 baseline

Source: Apple Mobility Index, US Energy Information Administration, S&P Global Platts

Gasoline stocks likely also saw pressure from an increase in driving demand. Apple mobility data shows US driving activity jumped nearly 15 percentage points last week to a 16-week high. Severe weather across much of the country had pushed the metric to the lowest since May during the week prior, but the rebound left demand just 3.4% behind year-ago levels.

Total distillate stocks likely drew 3.9 million barrels lower to 148.8 million barrels, analysts said. The expected draw would mark a sixth straight week of declining inventories and leave stocks just 1.1% above the five-year average, the narrowest supply overhang since mid-April.

— [Chris van Moessner](#)

## Crude retreats as market eyes OPEC+ quota increases, US supply return

- US stimulus bill advances to Senate
- OPEC+ likely to raise April output
- Nearly 100% of shut-in US crude output restored

*New York*—Crude oil futures settled lower following a volatile session March 1 amid expectations that OPEC would raise production quotas at its March 4 meeting.

NYMEX April WTI settled down 86 cents at \$60.64/b and ICE May Brent declined 73 cents to \$63.69/b.

Crude prices had traded higher overnight amid optimism that US fiscal relief would energize the US economic recovery, improving demand for oil and energy.

The US House of Representatives approved an expansive \$1.9 trillion COVID-19 stimulus package, which includes direct payments, unemployment benefits and funds for vaccination programs. The package is now pending approval by the US Senate.

But the rally stumbled in US trading amid increased focus on the March 4 OPEC+ meeting, which is expected to offer guidance on the alliance's production plans going forward.

NYMEX April RBOB settled down 76 point at \$1.9429/b and April ULSD declined 2.39 cents to \$1.8192/gal.

Market analysts generally expect the coalition to announce an increase in production from March levels, although with an added twist to what would usually be bearish news. The lofty demand sentiment at the moment is so strong that it is expected an increase in OPEC+ supply will likely have minimal impact on oil prices.

"The question at hand is how much should OPEC+ increase production in April," OANDA senior market analyst Edward Moya said in a note. "In addition to the Saudis ending their voluntary cut, April production could increase anywhere from 300,000 to 500,000 bpd."

"This is a live meeting, but most energy traders would likely welcome a pullback in crude prices. With an improving global COVID-19 vaccine outlook, the energy market is bracing for much higher prices by the end of the year," Moya added.

Adding to downward pressure, nearly 100% of the 4 million b/d of US crude production taken offline by severe winter weather last month had been restored as of March 1, S&P Global Platts Analytics data showed, as the return of seasonal temperatures thawed equipment and mitigated power grid disruptions.

US crude production is expected to average 10.7 million b/d during the week ended Feb. 26, according to Platts Analytics, up from a six-month low 9.7 million b/d averaged the week prior. In the weeks leading up to the storm, US Energy Information Administration data shows US production averaged around 10.8 million–11 million b/d.

Total commercial crude stocks are expected to have climbed 1.3 million barrels to around 464.3 million barrels in the week ended Feb. 26, analysts surveyed by S&P Global Platts said March 1.

— [Chris van Moessner](#)

## CERAWEEK: Jet fuel lagging global petroleum demand recovery

- **Business travel to lag leisure: United**
- **Airlines use multi-pronged net-zero approach**

As the impact of the coronavirus pandemic ebbs with the rollout of vaccines, global petroleum demand should return to 2019 levels by the end of this year, although jet fuel demand will lag that recovery, industry executives said March 1.

So far in 2021, demand for liquid petroleum volumes are down by about 9% from 2019 but expectations are for demand to be “restored more or less back to normal by the second half of this year,” said Shell CEO Ben van Beurden, speaking at a CERAWEEK by IHS Markit panel.

This is due in part to strong Asian demand and growing demand for gasoline and diesel.

“The biggest gap is jet,” he added,

While global demand for refined products is expected to grow by 5.9 million b/d in 2021 and 3.2 million b/d in 2022, jet fuel demand is not expected to return to 2019 levels until 2023, according to S&P Global Platts Analytics forecasts.

The budding recovery in jet fuel seen in late 2020 from May’s nadir has been squashed by tighter travel restrictions to prevent transmission of new strains of the coronavirus. This has reduced air travel, with Platts Analytics expecting 2021 jet demand to average just over 6 million b/d, or 23% below 2019’s average.

“We’ve taken to joking we were the first out and the last in,” said panelist Scott Kirby, United Airlines’ CEO, about the sluggish return of airline travel.

Kirby said revenues were down by 65%, but with the vaccination rollouts the “open question” is will there be a recovery in leisure air travel by the summer or the fall of 2021? He expects that demand for leisure flying will be “well into recovery by 2022.”

“There’s a lot of pent-up demand,” he said, adding that he expects the business travel recovery to take a bit longer.

This is partly because companies will continue to encourage virtual meetings as a way to keep expenses low. But that won’t last forever, he added.

“We are social animals. You can’t build relationships...where you get to know people and make a relationship,” he said.

“The first time they [a company] lose a sale on Zoom, they go back to in-person,” he said, adding that mandatory vaccines would go a long way to making flyers feel safer.

## The net-zero challenge

Both van Beurden and Kirby agreed the desire for net-zero carbon emissions will be a major driving force for company growth strategies going forward.

“Net-zero carbon emissions is what society wants,” van Beurden said. “And it’s the right thing to do. Especially if you want to be a significant and forceful player. You have to go where society wants to go.”

Shell, Europe’s largest oil and gas company, has stated previously it plans to be a net-zero emissions energy business by 2050, providing baselines which showed oil production peaked in 2019 and total carbon emissions peaked in 2018 at 1.7 gigatons.

“It’s a defining issue. It’s this generation’s moonshot,” said Kirby.

Kirby said United’s net-zero plan was many pronged, including a combination of sustainable aviation fuel, some form of mitigation, and carbon capture.

“But it’s not a 100% solution,” he added, noting that airlines as a group need to support initiatives to get to net-zero emissions.

— [Janet McGurty](#)

## Brazil’s Petrobras to increase diesel, gasoline prices by 5%, effective March 2

- **Latest increase as oil prices rise**
- **Price dispute led to CEO change**
- **Third, fourth increases in 2021**

*Rio de Janeiro*—Brazilian state-led oil company Petrobras increased domestic diesel, gasoline and LPG prices at the refinery gate, effective March 2, in a move that continued a string of price hikes to start 2021 as the company scrambles to maintain parity with imports amid rising oil prices, the company said March 1.

Petrobras boosted the price of wholesale diesel 5% to \$0.48/liter, or by about \$0.02/l, the company said. That was the fourth increase to domestic diesel prices since the start of 2021, according to Petrobras. In addition, gasoline was elevated 4.8% to \$0.46/l, or by \$0.02/l. That was the fifth increase to gasoline prices so far in 2021, the company said.

LPG prices, meanwhile, advanced \$0.03/kg to \$0.54/kg, or about \$7.09 for a 13-kilogram tank, Petrobras said. The 13-kilogram tanks are used by many Brazilians in rural and remote regions not served by traditional natural gas distribution networks to power cooking stoves.

The latest increases continued Petrobras’ attempt to keep domestic prices at parity with international imports, but will likely draw additional ire from President Jair Bolsonaro. While Bolsonaro has supported market-friendly policies and has worked to liberalize Latin America’s biggest economy, public outrage about high fuel prices from key constituents has led to a more populist tone in recent weeks.

Bolsonaro warned Petrobras of consequences after the company implemented a 14.7% increase to diesel and 10.2% hike to gasoline on Feb. 19. The president criticized Petrobras CEO Roberto Castello Branco for the price hikes and comments the executive made about independent truckers in late January.

Castello Branco blamed bad roads and too many trucks on the road for the group’s troubles, which he said wasn’t Petrobras’ problem.

Bolsonaro then nominated former Army Reserve General Joaquim

Silva e Luna to be CEO, effectively firing Castello Branco. Castello Branco's term was scheduled to end March 20, but could have been extended. Silva e Luna is currently having his credentials evaluated by Petrobras' internal governance procedures, but should be approved by the company's board later in March.

Silva e Luna is expected to roll back some of Petrobras' most-aggressive pricing techniques, with the executive saying in televised comments that he would strive for "balance" in refined-product pricing. Silva e Luna previously served as defense minister in 2016 and has been the Brazilian director at the Itaipu Binacional hydroelectric dam project since 2019.

The move raised concerns about a return to government meddling at the company, which came at a delicate time because Petrobras is in the process of selling eight of its 13 operated refineries under an antitrust agreement. The first refinery sales contract was signed in February, but issues over pricing could have a chilling effect on the sales process, industry officials said.

Petrobras was previously forced to sell expensive diesel and gasoline imports at a loss in the domestic market in 2011-2014. The ruling Workers' Party government, or PT, wouldn't allow Petrobras to pass along higher crude prices along to consumers at the pump for fear of stoking inflation. Analysts estimate that the policy cost Petrobras tens of billions of dollars in lost profits.

Import-parity pricing was expected to end the government interference.

Petrobras also faces pressure from third-party importers, which see arbitrage windows shuttered when Petrobras is selling diesel and gasoline at below-market rates. Importers sent a letter in January to the Justice Ministry's Antitrust Division, known as CADE, complaining about Petrobras' predatory pricing practices because it was selling domestic fuels at a discount to international prices.

CADE halted a previous investigation into Petrobras' pricing practices in 2019, when the company agreed to end its monopoly in the refining business, sell eight refineries and reduce its market share to 50%. Petrobras has until December 2021 to complete the sales.

— [Jeff Fick](#)

## Gas may come under India's unified tax regime ahead of gasoline, diesel

- Crude, gas, gasoil, gasoline, jet fuel still outside GST
- New Delhi keen to bring gas under GST to boost consumption
- Resistance from state governments a key roadblock

*Singapore*—India's aim to bring crude, transport fuels and gas under a unified tax regime has been met with stiff resistance from state governments, but gas could come under the tax umbrella earlier than other oil products, although the move won't be free of hurdles.

Nearly four years after the goods and services tax or GST came into effect, crude oil, natural gas, gasoline, gasoil and jet fuel are still outside its purview as state governments argue the central tax would hit their revenues, especially after the COVID-19 lockdown has already hurt income.

But the recent pledge from Indian Prime Minister Narendra Modi to bring gas under the GST has spurred a rally in the share prices of

gas companies in a country where gas accounts for only 6% of the country's energy mix, compared with a world average of around 25%.

"Bringing gas under GST would be a steppingstone in bringing the overall petroleum sector under the ambit of the GST," said Dharmakirti Joshi, chief economist at CRISIL, a unit of S&P Global. "But now because of COVID-19, everyone, both center and the states, is short of revenue, and petroleum is a good source of revenue. It will take some time to build a consensus."

GST is a unified indirect tax that aims to replace various taxes levied by the federal and provincial governments, such as the value added tax, or VAT.

Senior officials argued that states need to look at natural gas a bit differently from the rest of the petroleum products as its volumes are relatively smaller compared with gasoline and diesel, so the revenue loss would be relatively less.

"Looks like gas may come under the GST before transport fuels and crude," said a senior official at a multinational energy firm in India.

### Varying levels of taxes

VAT rates on natural gas in India can differ from 5% to 24.5% in different states and are subject to rebates for certain industries in each state.

In Gujarat, where the majority of the LNG terminals are located, gas incurs a 15% VAT, whereas Andhra Pradesh, the state from which ONGC and Reliance-BP will supply their KG-Basin gas production, has a VAT rate of 24.5%.

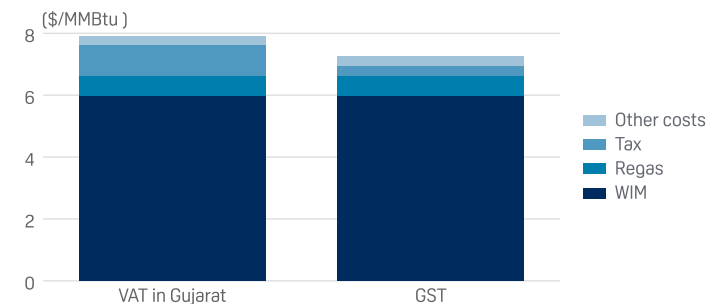
The government of Andhra Pradesh increased the rate of tax on natural gas from 14.5% to 24.5% in September 2020 to boost its revenue after the pandemic lockdown dried up its coffers.

A Reliance-BP domestic gas tender to supply gas produced from the KG-D6 basin at JKM minus 18 cents/MMBtu on an ex-Gadimoga basis would incur the higher VAT rate applicable in Andhra Pradesh at 24.5%. Based on the JKM price of \$6.275/MMBtu on Feb. 23, the VAT incurred would be around \$1.50/MMBtu.

If the GST rate was set at 5% for natural gas, the tax incurred would drop down to around 31 cents/MMBtu. However, companies that have procured gas through the tender for supplying to another end-user for consumption outside Andhra Pradesh can provide a C-form and pay a 2% central sales tax, or CST. VAT would be charged at the point of sale depending on the natural gas tax rate in each state.

"Gas under the purview of GST would be a big plus for Indian gas

### IMPLEMENTATION OF GST TO MAKE RLNG MORE AFFORDABLE IN INDIA



Note: WIM used for Feb. 23 assessment, GST rate assumed at 5%  
Source: S&P Global Platts



demand as it would bring down the cost for end-buyers,” and Indian RLNG buyer said. “Suppliers would also be able to apply for input tax credit and the complex VAT and CST regime would get simplified.”

Sumit Pokharna, vice president of Kotak Securities, said with gas being outside the GST, gas-based industries like fertilizers, power, refinery and petrochemicals do not get the benefit of tax credit of VAT paid on purchases of gas, resulting in a higher cost of production for industrial consumers.

Secondly, in the latest federal budget the government has highlighted plans to monetize pipeline assets of public sector undertakings like GAIL.

“If gas comes under GST, demand for natural gas will improve substantially, resulting in better valuations for pipeline assets,” Pokharna said.

### Tough task at hand

“VAT is levied by the state governments,” Pokharna said. “Inclusion of gas in GST might impact revenues of state governments; hence, resistance is coming from state governments.”

But oil and gas companies, both state-run and private, have highlighted that the move to keep gas and the four energy commodities out of the GST list has affected investments in infrastructure, as their input costs have risen.

While a downstream player pays GST on the procurement of a plant, machinery and services for the production of petroleum products, it has not been able to claim input tax credit against the excise duty and VAT paid on petrol, diesel and aviation turbine fuel, as these products are outside the ambit of the GST.

Currently, only LPG, naphtha, fuel oil and kerosene are under the GST.

“The central government will find it hard to convince the states for the inclusion of gas in the GST, but with Narendra Modi speaking about gas coming under the ambit of the GST, it has given more confidence to buyers,” an Indian end-user said.

— [Sambit Mohanty, Srijan Kanoj](#)

## REFINERY UPDATES

### Ras Lanuf, Libya

- Owner: National Oil Corporation, Libyan Emirates Oil Refining Company
- Overall capacity: 220,000 b/d
- Status: Shutdown

**Notes:** Libya’s National Oil Corporation has won an arbitration case against the Libyan Emirates Oil Refining Company, which could lead to the reopening of the Ras Lanuf refinery, the state-owned company said.

The refinery has been closed since 2013 due to the arbitration dispute.

NOC said the Paris Court of Appeal upheld the ICC arbitration decision against LERCO regarding the Ras Lanuf Refinery. The Paris Court confirmed that LERCO will have to pay NOC more than \$115 million plus interest.

“With interest calculated up to February 28, 2021, the amount that LERCO must pay under that award is over \$132 million,” NOC said. “NOC will take all necessary steps to enforce its rights under the award and the Court’s decision.”

Libya has a total refining capacity of 380,000 b/d, but has been running at a fraction of that capacity since the Ras Lanuf closure.

Source: Company

### Omsk, Russia

- Owner: Gazprom Neft
- Capacity: 21.4 million mt/year (428,000 b/d), of which 1 million mt/year is gas condensate

**Notes:** Gazprom Neft has started assembling equipment for the new diesel hydrotreater and dewaxer unit at its Omsk refinery, whose construction is due to be completed in 2021.

The unit will have 2.5 million mt/year of feedstock capacity and will allow the refinery to replace two outdated units.

Separately, the company said recently it has started assembly of electricity equipment at the catalytic cracker at Omsk refinery as part of the unit’s upgrade which aims at increasing the output of high octane components.

The company said previously it had completed installation of the upgraded L 35/11-600 catalytic reformer. Two new compressors have been installed and three have been upgraded. Work had been due for completion in 2020.

Gazprom Neft had also started testing the equipment of the deep processing complex at Omsk, currently under construction. The testing includes pressurization of heat exchangers and pumps. The hydrogen unit will be tested first, followed by the hydrocracker.

Once the testing is completed the complex could be launched in test mode. The 2 million mt/year complex will enable the refinery to increase the depth of processing and regulate the yields of gasoline, jet fuel and lubricants feedstock.

Construction is due for completion in 2021. Omsk has also completed the installation of its new delayed coker. The 2 million mt/year unit will help halt fuel oil output, increase coke production and the depth of processing to 97% and light products yield to 80%.

It will produce 38,700 mt/year of needle coke, which is used in the production of electrodes for the steel and aluminum industries. It is part of the deep processing complex at Omsk.

The new delayed coker unit and upgrades to its existing coker are set to be completed in 2021. Omsk has also completed the installation of the main equipment at the primary CDU-VDU processing complex.

The complex, with 8.4 million mt/year capacity, will be completed in 2021, and will allow the refinery to take six outdated units out of service. Separately, the refinery started a project to upgrade the AVT-10 primary processing complex, which has a capacity of 8.6 million mt/year.

The project is due to be completed by the end of 2021.

Source: Company

## Gelsenkirchen, Germany

- Owner: BP (100%)
- Overall capacity: 12 million mt/year (around 240,000 b/d)

**Notes:** A diesel hydrocracker at Germany's Gelsenkirchen refinery, which was offline in February, was back up and running, trading sources said March 1.

The company declined to comment.

The Scholven part of the refinery carried out maintenance into early January.

The refinery consists of the Horst and Scholven sites, with Horst representing around one-third of total capacity.

Source: Traders

## Rhineland, Germany

- Owner: Shell
- Overall capacity: 16 million mt/year (327,000 b/d)

**Notes:** Shell is planning to build the first commercial bio-PTL (power-to-liquid) at its Rheinland refinery in Germany, which will involve expanding its electrolyzer project at the site to 100 MW.

Construction for the new project (Refhyne II), which would produce 100,000 mt/year of synthetic kerosene and raw gasoline (naphtha) using green hydrogen generated in the electrolyzer as well as biomass (waste wood), could start in 2022, with a view to commercial operations beginning in 2025, Shell said Feb. 26.

Together with ITM Power and Linde, the company is currently commissioning what will be Europe's biggest polymer electrolyte membrane (PEM) electrolyzer at the site, a 10 MW unit.

In the expanded electrolyzer project, Refhyne II, ITM and Linde again are partnering Shell.

Germany's Rhineland investment project will generate hydrogen from electricity rather than natural gas. The refinery consists of the Wesseling (south) and Godorf (north) sites.

Source: Shell

## Lindsey, UK

- Owner: Prax Group
- Overall capacity: 108,000 b/d (5.4 million mt/yr)

**Notes:** Prax Group said it has successfully completed the acquisition of the UK's Lindsey refinery and its associated logistic assets in the UK.

In July, Total agreed to sell the 5.4 million mt/year (108,000 b/d) Lindsey refinery to fuel trading and marketing company Prax Group,

as the French oil major focuses on its integrated downstream assets and as the coronavirus added to uncertainty over long-term demand for fuel.

The acquisition includes the Finaline pipeline, which links the refinery with the Buncefield fuel terminal, and the Killinghome loading terminal, as well as shares in joint venture operations, Prax Group said. Those are Hertfordshire Oil Storage Ltd (60%), Associated Petroleum Terminals Ltd (50%), Crude Oil Terminals Ltd (50%), Humber Oil Terminals Trustee Ltd (50%) and Warwickshire Oil Storage Ltd (50%).

For UK-based Prax Group the acquisition provides an opportunity to integrate the refinery and its associated product flows "into the company's UK distribution and retail footprint, which operates under the Harvest Energy brand," Sanjeev Kumar, CEO of the Prax Group, said.

Source: company

## Falconara Marittima, Italy

- Owner: Anonima Petroli Italiana
- Overall capacity: 85,000 b/d
- Units affected: Entire refinery

**Notes:** Anonima Petroli Italiana's (API) 85,000 b/d refinery in the Italian coastal town of Falconara Marittima has returned to normal operations after having been placed offline in mid-January for routine maintenance works, according to sources.

The plant's operations started getting restarted last week after maintenance and upgrade works were completed, according to sources close to the refinery.

The plant had been offline since the first month of 2021 when the work started, though it continued shipping refined products it had in storage via tanker trucks while offline, as well as refined products coming into the complex from adjacent sea routes.

The refinery was not immediately available for comment.

The Falconara refinery had returned to full operations in March 2020 after a 40-day turnaround that began on Jan. 25 last year. The maintenance and upgrades carried out during the turnaround – the facility's regular five-year outage – involved all of the refinery's main units.

The refinery was also placed offline in April to offset a decline in demand for refined products in Italy caused by the coronavirus pandemic.

Falconara Marittima, API's core asset, is a small-scale thermal cracking refinery with some hydrocracking capacity.

Source: Sources close to the refinery

## PRODUCT PRICE ASSESSMENTS

## ASIA, MAR 1

		Mid	Change
<b>Singapore (PGA page 2002)</b>			
<b>(\$/barrel)</b>			
Naphtha	PAAAP00	66.16-66.20	66.180 +0.740
Jet kerosene	PJABF00	68.41-68.45	68.430 -0.220
Gasoil	POABC00	71.26-71.30	71.280 -0.180
Gasoil 10 ppm	AAOV000	71.26-71.30	71.280 -0.180
Gasoil 50 ppm	AAPPF00	71.10-71.14	71.120 -0.160
Gasoil 0.05% S	AAFEX00	70.09-70.13	70.110 -0.110
Gasoil 0.25% S	AACUE00	69.82-69.86	69.840 -0.110
Gasoil 50 ppm disc/prem	AAPP000	-0.26--0.22	-0.240 -0.080
Mogas 92 unl	PGAAY00	71.37-71.41	71.390 0.000
Mogas 95 unl	PGAEX00	72.79-72.83	72.810 -0.300
Mogas 97 unl	PGAMS00	74.26-74.30	74.280 -0.360
CFR Naphtha	AAOV000		64.470 +0.140
Naphtha pap. (bal month)	AAPLD00	64.98-65.02	65.000 +5.800
Naphtha pap. (Apr)	PAAAQ00	63.93-63.97	63.950 -0.850
Naphtha pap. (May)	PAAAR00	63.08-63.12	63.100 -0.650
Kerosene pap. (bal month)	AAPLE00	68.75-68.79	68.770 +4.520
Kerosene pap. (Apr)	PJABS00	69.07-69.11	69.090 +0.160
Kerosene pap. (May)	PJABT00	69.20-69.24	69.220 +0.080
Gasoil pap. (bal month)	AAPLF00	71.35-71.39	71.37 +3.890
Gasoil pap. (Apr)	POAFC00	71.33-71.37	71.350 -0.100
Gasoil pap. (May)	POAFG00	71.19-71.23	71.210 -0.170
<b>(\$/mt)</b>			
FO 180 CST 2%	PUAXS00	391.90-391.94	391.920 +0.190
HSFO 180 CST	PUADV00	383.28-383.32	383.300 +0.190
180 CST disc/premium	AAGZF00	0.73-0.77	0.750 0.000

## CHINA, MAR 1 (PGA page 2010)

		Mid	Change
<b>(\$/mt)</b>			
<b>South China FOB</b>			
Unl 92 RON	AAICW00	594.50-598.50	596.500 +0.750
<b>South China, C&amp;F</b>			
Jet kerosene	PJABQ00	550.00-554.00	552.000 -1.250
Gasoil	POAFA00	531.00-535.00	533.000 -1.000
<b>Hong Kong</b>			
Fuel oil 380 CST	PUAER00	401.50-402.50	402.000 0.000

## FUJAIRAH, FOB, MAR 1 (PGA page 2018)

		Mid	Change
<b>(\$/mt)</b>			
Naphtha	NFJSA00	598.900	+4.020
HSFO 380 CST	AFUJQ00	367.570	-1.850
<b>(\$/barrel)</b>			
Gasoline 95 unleaded	AFUJA00	74.510	+0.130
Gasoline 92 unleaded	RFJFS00	72.090	+0.040
Kerosene	AFUJF00	68.080	-0.010
Gasoil 10 ppm	AFUJP00	70.410	-0.090
Gasoil	AFUJK00	70.410	-0.090

		Mid	Change
<b>Singapore (continued)(PGA pages 2002 &amp; 2655)</b>			
<b>(\$/mt)</b>			
HSFO 380 CST	PPXDK00	378.57-378.61	378.590 +0.990
HSFO 180 CST pap. (bal month)	AAPML00	383.13-383.17	383.15 +21.300
HSFO 180 CST pap. (Apr)	PUAXZ00	380.83-380.87	380.850 -1.900
HSFO 180 CST pap. (May)	PUAYF00	378.78-378.82	378.800 -1.550
MTBE	PHALF00	682.00-684.00	683.000 0.000
<b>C&amp;F Japan (PGA page 2006)</b>			
<b>(\$/barrel)</b>			
Jet kerosene	PJAAN00	70.31-70.35	70.330 -0.180
Mogas unl	PGACW00	73.39-73.43	73.410 +0.040
<b>(\$/mt)</b>			
Naphtha	PAAAD00	599.50-604.75	602.125 +2.250
Nph 2nd 1/2 Apr	PAAAE00	609.00-609.50	609.250 +3.000
Nph 1st 1/2 May	PAAAF00	604.25-604.75	604.500 +2.250
Nph 2nd 1/2 May	PAAAG00	599.50-600.00	599.750 +2.250
<b>FOB Japan</b>			
<b>(\$/barrel)</b>			
Gasoil	POJAP00		70.410 -0.130
<b>C+F Australia (PGA page 2004)</b>			
<b>(\$/barrel)</b>			
Mogas 92 unl	AACZF00	74.17-74.21	74.190 +0.060
Mogas 95 unl	AACZH00	75.59-75.63	75.610 -0.240
Jet kerosene	AAFIV00	71.42-71.46	71.440 -0.150
Gasoil 10 ppm	AAQUD00	74.45-74.49	74.470 -0.110

## ARAB GULF, FOB, MAR 1 (PGA page 2004)

		Mid	Change
<b>(\$/mt)</b>			
Naphtha	PAAAA00	577.26-582.51	579.885 +2.620
Naphtha LR2	AAIDA00	582.00-587.25	584.625 +1.900
HSFO 180 CST	PUABE00	373.18-373.22	373.200 -0.070
HSFO 380 CST	AAIDC00	368.47-368.51	368.490 +0.730
<b>(\$/barrel)</b>			
95 RON unleaded	AAICY00	70.50-70.54	70.520 -0.300
92 RON unleaded	AAGJA00		69.100 0.000
Kerosene	PJAAA00	66.76-66.80	66.780 -0.200
Gasoil 10 ppm	AAIDT00	69.51-69.55	69.530 -0.160
Gasoil 0.05% S	AAFEZ00	69.21-69.25	69.230 -0.160
Gasoil 0.25% S	AACUA00	68.76-68.80	68.780 -0.160
Gasoil	POAAT00	69.51-69.55	69.530 -0.160

## ASIA PRODUCT PREMIUM/DISCOUNT ASSESSMENTS

Mar 1		Mid	Change
<b>MOP* Singapore (PGA page 2002)</b>			
<b>(\$/barrel)</b>			
Jet	PJACU00	-0.44/-0.40	-0.420 -0.110
Gasoil 0.25% S	AACQI00	-1.54/-1.50	-1.520 -0.030
Gasoil	POAIC00	-0.10/-0.06	-0.080 -0.100
CFR Naphtha	AAOV000		-0.250 +0.050
<b>(\$/mt)</b>			
380 CST	PPXDL00	1.07/1.11	1.090 +0.840
<b>MOP* Arab Gulf (PGA page 2004)</b>			
<b>(\$/barrel)</b>			
Jet	PJACV00	0.78/0.82	0.800 +0.050
Gasoil 10 ppm	AAIDU00	0.78/0.82	0.800 -0.050
Gasoil 0.25% S	AACUC00	0.03/0.07	0.050 -0.050
Gasoil	POAID00	0.78/0.82	0.800 -0.050
380 CST**	PPXDM00	-4.73/-4.69	-4.710 +0.800
<b>(\$/mt)</b>			
HSFO 180 CST	AAAXA00	6.98/7.02	7.000 -1.000
HSFO 380 CST	AAAXB00	1.98/2.02	2.000 -1.000
<b>MOP* Japan (PGA page 2006)</b>			
<b>(\$/barrel)</b>			
Naphtha	PAADI00	11.25/11.75	11.500 +1.250
<b>MOP* West India (PGA page 2012)</b>			
<b>(\$/mt)</b>			
Gasoline (92 RON)	AARBQ00		594.160 0.000
Gasoline (95 RON)	AAQWI00		598.940 -2.520
Naphtha	AAQWK00		582.960 +2.250
Jet kero	AAQWM00		527.940 -1.740
Gasoil (10 ppm)	AAQWO00		530.490 -1.380
Gasoil (500 ppm)	AAQWQ00		509.660 -0.820
Gasoil (2500 ppm)	AAQWS00		507.650 -0.820
<b>(\$/barrel)</b>			
Gasoline (92 RON)	AARBP00		69.900 0.000
Gasoline (95 RON)	AAQWH00		71.300 -0.300
Naphtha	AAQWJ00		64.770 +0.250
Jet kero	AAQWL00		66.830 -0.220
Gasoil (10 ppm)	AAQWN00		69.620 -0.180
Gasoil (500 ppm)	AAQWP00		68.410 -0.110
Gasoil (2500 ppm)	AAQWR00		68.140 -0.110

\*Mean of Platts. \*\*=Differential to FOB Arab Gulf HSFO 180 CST.

## PLATTS INDEX, MAR 1 (PGA page 115)

		Mid	Change
Platts Jet Fuel Index	PJGL000	189.14	-2.160

The Platts Jet Fuel Index is calculated using daily assessments of Jet fuel spot prices in relevant regional centers. These values are compared with average spot prices in the base period (Index value of year 2000 = 100%) to generate a percentage figure reflecting the overall rise or fall in markets compared to the base period.

## PRODUCT PRICE ASSESSMENTS

## EUROPEAN BULK, MAR 1

(\$/mt)		Mid	Change		Mid	Change
<a href="#">(PGA page 1114)</a>						
<b>Cargoes FOB Med basis Italy</b>			<b>Cargoes CIF Med basis Genoa/Lavera</b>			
Prem unl 10 ppm	<a href="#">AAWZA00</a>	600.50-601.00	600.750	-2.500	<a href="#">AAWZB00</a>	609.00-609.50 609.250 -3.500
Naphtha physical	<a href="#">PAAA100</a>	560.25-560.75	560.500	-3.000	<a href="#">PAAAH00</a>	571.75-572.25 572.000 -4.250
Jet av. fuel	<a href="#">AAIDL00</a>	522.25-522.75	522.500	-3.250	<a href="#">AAZBN00</a>	537.25-537.75 537.500 -5.000
ULSD 10 ppm	<a href="#">AAWY00</a>	518.25-518.75	518.500	-3.750	<a href="#">AAWYZ00</a>	528.75-529.25 529.000 -4.750
Gasoil 0.1%	<a href="#">AAVJ100</a>	508.75-509.25	509.000	-6.000	<a href="#">AAVJ300</a>	519.75-520.25 520.000 -7.250
1% fuel oil	<a href="#">PUAAK00</a>	438.75-439.25	439.000	-2.000	<a href="#">PUAAJ00</a>	451.25-451.75 451.500 -0.500
3.5% fuel oil	<a href="#">PUAAZ00</a>	355.00-355.50	355.250	+0.500	<a href="#">PUAAY00</a>	367.25-367.75 367.500 +2.000
<a href="#">(PGA page 1110)</a>						
<b>Cargoes FOB NWE</b>			<b>Cargoes CIF NWE basis ARA</b>			
Gasoline 10 ppm					<a href="#">AAXF000</a>	618.00-618.50 618.250 +2.750
Naphtha swaps					<a href="#">PAAA100</a>	570.00-570.50 570.250 -11.250
Naphtha physical					<a href="#">PAAAL00</a>	580.25-580.75 580.500 -5.000
Jet kerosene	<a href="#">PJAUV00</a>	530.50-531.00	530.750	-4.500	<a href="#">PJAUV00</a>	538.75-539.25 539.000 -5.000
ULSD 10 ppm	<a href="#">AAVBF00</a>	518.50-519.00	518.750	-4.750	<a href="#">AAVBG00</a>	528.50-529.00 528.750 -5.250
Diesel 10 ppm NWE	<a href="#">AAWZD00</a>	519.75-520.25	520.000	-5.250	<a href="#">AAWZC00</a>	530.25-530.75 530.500 -5.500
Diesel 10 ppm UK					<a href="#">AAVBH00</a>	531.25-531.75 531.500 -5.250
Diesel 10 ppm UK cargoes					<a href="#">AUKDA00</a>	532.000 -5.250
CIF NWE - original (French) spec						
Gasoil 0.1%	<a href="#">AAWR000</a>	509.75-510.25	510.000	-4.750	<a href="#">AAWWS00</a>	522.50-523.00 522.750 -5.250
1% fuel oil	<a href="#">PUAAM00</a>	433.25-433.75	433.500	-0.250	<a href="#">PUAAL00</a>	443.50-444.00 443.750 -0.250
3.5% fuel oil	<a href="#">PUABB00</a>	348.00-348.50	348.250	-2.000	<a href="#">PUABA00</a>	361.50-362.00 361.750 -2.250

[\(PGA pages 1112 & 1380\)](#)

<b>Barges FOB Rotterdam</b>						
98 RON unl	<a href="#">AAKOD00</a>	638.00-638.50	638.250	+2.750		
Prem unl	<a href="#">PGABM00</a>	611.50-612.00	611.750	+0.250		
Reformate	<a href="#">AAXPM00</a>		621.250	+2.750		
Eurobob	<a href="#">AAQZV00</a>	601.00-601.50	601.250	+2.750		
E10 Eurobob	<a href="#">AGEFA00</a>		605.500	+2.000		
Naphtha physical	<a href="#">PAAAM00</a>	576.25-576.75	576.500	-5.000		
Jet kerosene	<a href="#">PJABA00</a>	540.50-541.00	540.750	-5.500		
Diesel 10 ppm*	<a href="#">AAJUS00</a>	524.50-525.00	524.750	-4.750		
Gasoil 50 ppm	<a href="#">AAUQC00</a>	520.75-521.25	521.000	-4.750		
Gasoil 0.1%*	<a href="#">AAWY000</a>	513.75-514.25	514.000	-5.000		
DMA MGO 0.1%*	<a href="#">LGARD00</a>		523.000	+0.750		
1% fuel oil	<a href="#">PUAAP00</a>	432.00-432.50	432.250	-0.250		
3.5% fuel oil	<a href="#">PUABC00</a>	363.00-363.50	363.250	-2.250		
3.5% 500 CST fuel oil	<a href="#">PUAGN00</a>	361.00-361.50	361.250	-2.250		
380 CST	<a href="#">PUAYW00</a>	385.50-386.50	386.000	+1.000		

\*FOB Amsterdam-Rotterdam-Antwerp.

## WEST AFRICA PRODUCTS (\$/mt), MAR 1

		Mid	Change
<b>West Africa cargoes</b> <a href="#">(PGA page 1122)</a>			
<b>FOB NWE</b>			
Gasoline	<a href="#">AAKUV00</a>	612.000	-3.000
<b>CIF West Africa</b>			
Gasoline	<a href="#">AGNWC00</a>	630.250	-3.000
<b>FOB STS West Africa</b>			
Gasoil 0.3%	<a href="#">AGNWD00</a>	530.500	-5.250

RENEWABLE FUELS (\$/mt), MAR 1 [\(PGA pages 1414, 483 and 2414\)](#)

		Mid	Change
<b>Northwest Europe</b>			
SAF	<a href="#">BJNWA00</a>	1859.969	+0.649
HVO	<a href="#">HVNWA00</a>	1711.793	+0.198
<b>USWC</b>			
SAF w/ credits	<a href="#">ASAF000</a>	1709.411	+2.295
SAF w/o credits	<a href="#">ASAFB00</a>	322.500	-13.301
RD w/ credits	<a href="#">ARDFA00</a>	1616.430	+1.376
RD w/o credits	<a href="#">ARDFB00</a>	66.390	-15.665
<b>Southeast Asia</b>			
SAF	<a href="#">ASFAA00</a>	1725.620	-18.820
HVO	<a href="#">HVSAB00</a>	1585.970	-16.250

## PLATTS EURO DENOMINATED PRODUCT ASSESSMENTS

Mar 1		Mid	Change
<b>Cargoes CIF NWE/basis ARA</b> <a href="#">(PGA page 1116)</a>			
Nap phy	<a href="#">AAQCE00</a>	481.34-481.75	481.543 -2.701
Jet	<a href="#">AAQCF00</a>	446.91-447.33	447.117 -2.804
<b>Cargoes FOB NWE</b> <a href="#">(PGA page 1116)</a>			
1%	<a href="#">AAQCG00</a>	359.39-359.81	359.602 +0.864
<b>Barges FOB Rotterdam</b> <a href="#">(PGA page 1118)</a>			
Prem unl	<a href="#">AAQCH00</a>	507.26-507.67	507.466 +1.718
10 ppm*	<a href="#">AAQCI00</a>	435.09-435.50	435.297 -2.632
Gasoil 0.1%*	<a href="#">AAWY000</a>	426.17-426.59	426.379 -2.866
DMA MGO*	<a href="#">LGARE00</a>		433.845 +1.912
3.50%	<a href="#">AAQCK00</a>	301.12-301.54	301.327 -0.964
3.50% 500 CST	<a href="#">PUAG000</a>	299.46-299.88	299.668 -0.969
		Mid	Change
<b>Cargoes CIF West Africa</b> <a href="#">(PGA page 1116)</a>			
Gasoline	<a href="#">AANWC00</a>	522.812	-0.925
<b>Cargoes FOB NWE West Africa</b> <a href="#">(PGA page 1116)</a>			
Gasoline	<a href="#">AGNWA00</a>	507.673	-0.970
<b>Cargoes FOB STS West Africa</b> <a href="#">(PGA page 1116)</a>			
Gasoil 0.3%	<a href="#">AGNWE00</a>	440.066	-3.032

Euro/US\$ forex rate: 1.2055. Platts Euro denominated European and US product assessments are based on market values and a Euro/US\$ forex rate at 4:30 PM local London time. \*FOB Amsterdam-Rotterdam-Antwerp.

## EUROPEAN FEEDSTOCKS AND BLENDSTOCKS

		Mid	Change
<b>CIF Northwest Europe cargo</b> <a href="#">(PGF page 1760)</a>			
VGO 0.5-0.6%	<a href="#">AAHMZ00</a>	477.00-478.00	477.500 -1.750
VGO 2%	<a href="#">AAHND00</a>	470.25-471.25	470.750 -1.750
<b>FOB Northwest Europe cargo</b> <a href="#">(PGF page 1760)</a>			
VGO 0.5-0.6%	<a href="#">AAHMX00</a>	463.50-464.50	464.000 -1.250
VGO 2%	<a href="#">AAHNB00</a>	456.50-457.50	457.000 -1.500
Straight Run 0.5-0.7%	<a href="#">PKABA00</a>	460.00-461.00	460.500 -1.250
<b>FOB Black Sea cargo</b> <a href="#">(PGF page 1760)</a>			
VGO 0.8%	<a href="#">ABBAD00</a>	452.250	-3.500
VGO 2%	<a href="#">ABBAC00</a>	445.500	-3.250
<b>CIF Mediterranean cargo</b> <a href="#">(PGF page 1760)</a>			
Straight Run 0.5-0.7%	<a href="#">AAJNT00</a>	470.750	-0.250
VGO 0.8%	<a href="#">ABBAB00</a>	467.750	-1.250
VGO 2%	<a href="#">ABBAA00</a>	460.750	-1.500
<b>FOB Rotterdam barge</b> <a href="#">(PGF page 1760)</a>			
MTBE*	<a href="#">PHALA00</a>	680.75-681.25	681.000 +4.250
VGO 0.5-0.6%	<a href="#">AAHNF00</a>	453.75-454.75	454.250 +2.000
VGO 2%	<a href="#">AAHNI00</a>	447.00-448.00	447.500 +2.000

\*FOB Amsterdam-Rotterdam-Antwerp.

## PRODUCT PRICE ASSESSMENTS

## NEW YORK, MAR 1 (PGA page 152)

		Cargo (¢/gal)	Mid	Change	RVP	Barge (¢/gal)	Mid	Change	RVP	Differentials to NYMEX	Mid	Change	
Unl 87	AAMHG00	191.74–191.84	191.790	+1.290	AAMHGRV 15.0								
CBOB						AAWBL00	185.69–185.79	185.740	-0.760	AAWBLRV 15.0	AANYX14	-8.550	0.000
Prem CBOB						AAWLC00	196.64–196.74	196.690	-0.310	AAWLCRV 13.5	AANYX16	2.400	+0.450
Unl RBOB	AAVKS00	187.19–187.29	187.240	-0.760	AAVKSrv 15.0	AAMGV00	185.69–185.79	185.740	-0.760	AAMGVRV 15.0	AANYX15	-8.550	0.000
Prem RBOB						AAMGY00	196.64–196.74	196.690	-0.310	AAMGYRV 13.5	AANYX17	2.400	+0.450
Jet fuel						PJAAW00	166.37–166.47	166.420	-4.390		ADIGA00	-15.500	-2.000
LS jet kero						PJABJ00	185.37–185.47	185.420	-2.390		ADIHA00	3.500	0.000
ULS kero						AAVTI00	192.12–192.22	192.170	-2.390		ADJKH00	10.250	0.000
No. 2						POAEG00	163.62–163.72	163.670	-2.390		ADIAO00	-18.250	0.000
ULSD						AATGX00	181.77–181.87	181.820	-3.240		ADIZA00	-0.100	-0.850
ULS heating oil						AAXPX00		169.420	-3.140		ADIAQ00	-12.500	-0.750
		Cargo ex-duty (¢/gal)*			RVP								
Unl 87	AASAA00	176.61–176.71	176.660	+1.070	AASAArv 15.0								
Unl RBOB	AASAF00	172.09–172.19	172.140	-0.970	AASAFrv 15.0								
		(\$/barrel)								Differential vs 1s strip(\$/barrel)			
No. 6 0.3% S hi pr	PUAAE00	78.25–78.27	78.260	-1.100		AAUGA00	13.67–13.69	13.680					
No. 6 0.3% S lo pr	PUAAB00	78.25–78.27	78.260	-1.100		AAUGB00	13.67–13.69	13.680					
No. 6 0.7% S max	PUAAH00	68.38–68.40	68.390	-0.950		AAUGC00	3.80–3.82	3.810					
No. 6 1% S max	PUAAO00	64.33–64.35	64.340	-0.630		AAUGD00	-0.25–0.23	-0.240					
No. 6 1% S max 1s strip	AAUGG00	64.57–64.59	64.580	-1.410									
USAC HSFO	PUAAX00	56.30–56.32	56.310	-0.750		AAUGF00	-8.28–8.26	-8.270					
No. 6.1 S max pap bal M	AARZS00	64.50–64.60	64.55	+0.150									
No. 6 1.0% S pap 1st M	PUAXD00	63.90–64.00	63.950	-1.950									
No. 6 1.0% S pap 2nd M	PUAXF00	63.35–63.45	63.400	-1.900									
No. 6 1.0% S pap qtrly	PUAXG00	63.35–63.45	63.400	-1.370									

\*These assessments reflect gasoline cargoes sold on a delivered, ex-duty basis New York, excluding import duty and import taxes/fees.

## USAC CPL LINDEN\*, MAR 1 (PGA page 410)

(¢/gal)		Mid	Change	Differentials to NYMEX	Change	Cycle	RVP	
Unl 87	ACXPW00	190.090	+1.290	AANYX40	-4.200	+2.050	ACRQWCV 11	ACRQWRV 13.5
CBOB	ABXPW00	188.840	+1.290	AANYX41	-5.450	+2.050	ABRQWCV 11	ABRQWRV 14.5
RBOB	ADXPW00	189.090	+1.290	AANYX42	-5.200	+2.050	ADRQWCV 11	ADRQWRV 13.5
Jet kero 54	AAXPV00	166.420	-4.640	ADIJA00	-15.500	-2.250	AAXPVCY 11	
ULS heating oil	AAXPU00	170.670	-2.890	ADIAR00	-11.250	-0.500	AAXPUCY 10	
ULSD	AAXPW00	185.070	-2.890	ADLAA00	3.150	-0.500	AAXPWCY 10	

\*Assessments reflect shipments on the next full pipeline cycle after the prompt cycle

## PRODUCT PRICE ASSESSMENTS

## U.S. BUCKEYE PIPELINE, MAR 1 (PGA page 310)

(¢/gal)		Mid	Change	RVP	Differentials to NYMEX	Change
Unl RBOB	AAMHB00	185.69-185.79	185.740	-0.760	AAMHBRV 15.0 AANYX35	-8.550 0.000
Prem RBOB	AAMHZ00	196.64-196.74	196.690	-0.310	AAMHZRV 13.5 AANYX36	2.400 +0.450
CBOB	AAPSY00	185.69-185.79	185.740	-0.760	AAPSYRV 15.0 AANYX33	-8.550 0.000
CBOB prem	AAPSZ00	196.64-196.74	196.690	-0.310	AAPSZRV 13.5 AANYX34	2.400 +0.450
ULSD	AATHF00	181.77-181.87	181.820	-3.240	ADIYA00	-0.100 -0.850
Jet fuel	AAJNL00	166.37-166.47	166.420	-4.390	ADIEA00	-15.500 -2.000
LS jet/kero	AAJNN00	185.37-185.47	185.420	-2.390	ADIFA00	3.500 0.000

RVP

## Laurel

Unl CBOB	AAUAS00	186.44-186.54	186.490	-0.760	AAUASRV 15.0 AANYX29	-7.800 0.000
Prem CBOB	AAUAT00	197.39-197.49	197.440	-0.310	AAUATRV 13.5 AANYX30	3.150 +0.450

All RVP references are after ethanol

## CHICAGO PIPELINE, MAR 1 (PGA page 160)

(¢/gal)		Mid	Change	RVP	Differentials to NYMEX	Change
Unleaded 87	PGACR00	181.49-181.59	181.540	-0.760	PGACRRV 13.5 AANYX98	-12.750 0.000
Unleaded 89	PGAAX00	188.59-188.69	188.640	-0.760	PGAAXRV 13.5	
Prem. unl 91	PPASQ00	199.24-199.34	199.290	-0.760	PPASQRV 13.5 AANY100	5.000 0.000
CBOB	AAREL00	180.49-180.59	180.540	-0.760	AARELRV 13.5 AANY101	-13.750 0.000
PBOB	AAUEU00	202.49-202.59	202.540	-0.760	AAUEURV 13.5 AANY103	8.250 0.000
RBOB	PPARH00	183.74-183.84	183.790	-0.760	PPARHRV 13.5 AANY102	-10.500 0.000
Jet fuel	PJAAF00	178.12-178.22	178.170	-2.390	ADILA00	-3.750 0.000
ULS No. 1	PJACD00	209.87-209.97	209.920	-0.140		
ULSD	AATHA00	189.87-189.97	189.920	-0.140	ADLAI00	8.000 +2.250

## CHICAGO BUCKEYE COMPLEX, MAR 1 (PGA page 160)

(¢/gal)		Mid	Change	RVP	Differentials to NYMEX	Change
CBOB	ACBAA00	183.790	-0.760	ACBAARV 13.5 ACBAB00	-10.500 0.000	
RBOB	ACBAC00	183.790	-0.760	ACBACRV 13.5 ACBAD00	-10.500 0.000	
ULSD	ACBAE00	189.920	-0.890		ACBAF00 8.000 +1.500	

## CHICAGO WOLVERINE PIPELINE, MAR 1 (PGA page 160)

(¢/gal)		Mid	Change	RVP	Differentials to NYMEX	Change
CBOB	AGCWA00	180.540	-0.760	AGCWERV 13.5 AGCWB00	-13.750 0.000	
ULSD	AGCWC00	189.920	-0.390		AGCWD00 8.000 +2.000	

## GROUP THREE, MAR 1 (PGA page 160)

(¢/gal)		Mid	Change	RVP	Differentials to NYMEX	Change
Sub-octane	AAIX00	196.49-196.59	196.540	+1.490	AAIXRV 8.5 AANYX01	2.250 +2.250
Prem. unleaded	PGABD00	221.74-221.84	221.790	+1.490	PGABDRV 8.5 AANYX02	27.500 +2.250
ULSD	AATHB00	199.12-199.22	199.170	+4.110	ADLAB00	17.250 +6.500
Jet fuel	PJAAI00	176.62-176.72	176.670	-4.640	ADIKAO0	-5.250 -2.250
No. 1	PJACB00	222.87-222.97	222.920	+4.110		

## ATLANTIC RESID/CONTRACT CARGOES POSTED PRICES, MAR 1 (PGA page 564)

(\$/barrel)		No. 4 Fuel
Global		
Boston 0.5%	PRALB00	98.30
Boston 1.0%	PRALD00	93.40
		No. 6 Fuel
Boston 0.5%	PRAMN00	96.60
Boston 1.0%	PRAMD00	85.60

Source: Global Montello Group Corp.

## MARINE FUEL (PGA page 30)

		\$/mt	Change
0.5% FOB Singapore cargo	AMFSA00	498.990	-4.770
0.5% FOB Fujairah cargo	AMFFA00	496.130	-2.980
0.5% FOB Rotterdam barge	PUMFD00	470.500	-4.750
0.5% FOB US Gulf Coast barge	AUGMB00	479.750	-4.750
0.5% Divd US Atlantic Coast barge	AUAMB00	482.500	-6.750
0.5% FOB Mediterranean cargo	MFFMM00	472.000	-6.000
0.5% CIF Mediterranean cargo	MFCMM00	483.000	-4.500
		\$/barrel	
0.5% FOB US Gulf Coast barge	AUGMA00	75.550	-0.750
0.5% Divd US Atlantic Coast barge	AUAMA00	75.980	-1.070
		vs FO 380 MOPS strip (\$/mt)	
0.5% FOB Singapore cargo	AMOPA00	121.490	-4.920
		vs MF 0.5% MOPS strip (\$/mt)	
0.5% FOB Singapore cargo	FOFSB00	2.250	-0.330
0.5% FOB Singapore Bal mo	FOFS000	497.450	+16.950
0.5% FOB Singapore M1	FOFS001	494.750	-7.000
0.5% FOB Singapore M2	FOFS002	492.250	-6.000
0.5% FOB Singapore MOPS Strip	FOFSA00	496.740	-4.440

## PRODUCT PRICE ASSESSMENTS

## U.S. GULF COAST, MAR 1

		Mid	Change		Mid	Change			Mid	Change					
<b>Houston (PGA page 156)</b>															
		<b>Pipeline (¢/gal)</b>			<b>Differential to NYMEX</b>			<b>Cycle</b>	<b>RVP</b>	<b>Waterborne (¢/gal)</b>			<b>RVP</b>		
Unl 87	PGACT00	187.44-187.54	187.490	+2.440	AANY105	-6.800	+3.200	PGACTCY 15	PGACTRV 11.5	PGACU00	189.44-189.54	189.490	+2.440	PGACURV 11.5	
Unl 89	PGAAY00	190.24-190.34	190.290	+2.120				PGAAYCY 15	PGAAYRV 11.5	PGAAZ00	192.24-192.34	192.290	+2.120	PGAAZRV 11.5	
Prem unl 93	PGAJB00	194.44-194.54	194.490	+1.640	AANYX76	0.200	+2.400	PGAJBCY 15	PGAJBRV 11.5	PGAIX00	196.44-196.54	196.490	+1.640	PGAIXRV 11.5	
CBOB 87	AARQV00	184.94-185.04	184.990	+2.440	AANYX77	-9.300	+3.200	AARQUCY 15	AARQURV 12.5	AAWES00	186.94-187.04	186.990	+2.440	AAWESRV 12.5	
CBOB 93	AARQV00	190.94-191.04	190.990	+2.440	AANYX78	0.200	+2.400	AARQVCY 15	AARQVRV 12.5						
RBOB 83.7	AAMFB00	187.44-187.54	187.490	+2.440	AANYX79	-6.800	+3.200	AAMFBCY 15	AAMFBRV 11.5						
RBOB 91.4	AAMNG00	199.24-199.34	199.290	+4.740	AANYX80	5.000	+5.500	AAMNGCY 15	AAMNGRV 11.5						
Jet/kero 54	PJABO00	164.62-164.72	164.670	-2.640	ADIAS00	-17.250	-0.250	PJABOCY 16		PJABM00	166.12-166.22	166.170	-2.640		
Jet/kero 55	PJABP00	165.12-165.22	165.170	-2.640	ADIAZ00	-16.750	-0.250	PJABPCY 16		PJABN00	166.62-166.72	166.670	-2.640		
ULS Kero	AAVTL00	171.62-171.72	171.670	-2.640	ADICA00	-10.250	-0.250	AAVTLCY 16		AAVTK00	173.12-173.22	173.170	-2.640		
ULSD	AATGY00	179.87-179.97	179.920	-1.740	ADIQA00	-2.000	+0.650	AATGYCY 15		AATGZ00	181.12-181.22	181.170	-1.740		
No. 2	POAED00	163.62-163.72	163.670	-2.390	ADIAA00	-18.250	0.000	POAEDCY 15		POAEE00	168.12-168.22	168.170	-2.390		
ULS Heating Oil	AAXFD00	167.27-167.37	167.320	-1.990	ADIAI00	-14.600	+0.400	AAXFDCY 15							
		<b>Waterborne vs prompt pipeline (¢/gal)</b>													
Jet Spread	AUSGL00		1.500	0.000											
ULSD Spread	AUSGN00		1.250	0.000											
No. 2 Spread	AUSGM00		4.500	0.000											
		<b>FOB Cargo (¢/gal)</b>			<b>FOB Cargo (\$/mt)</b>										
Export ULSD	AAXRV00		166.280	-2.910	AAXRW00	520.290	-9.110								
		<b>FOB Cargo vs forward pipe strip (¢/gal)</b>													
ULSD Mexico	AUSGH00		1.500	0.000											
ULSD Brazil	AUSGA00		1.750	0.000											
ULSD EN590	AUSGB00		2.000	0.000											
Jet A	AUSGC00		1.500	0.000											
Jet A-1	AUSGD00		2.000	0.000											
		<b>Colonial Pipeline Gasoline Line Space (¢/gal)</b>						<b>Cycle</b>							
Line 1	AAXTA00		-0.800	0.000				AAXTACY 15							
Line 3	AAXTB00		0.000	0.000				AAXTBCY 15							
Line 1+3	AAXTC00		-0.800	0.000				AAXTCCY 15							
		<b>Colonial Pipeline Distillates Line Space (¢/gal)</b>													
Line 2	AAXTD00		-0.550	0.000				AAXTDCY 15							
Line 3	AAXTE00		0.000	0.000				AAXTECY 15							
Line 2+3	AAXTG00		-0.550	0.000				AAXTGCY 15							
		<b>(\$/barrel)</b>			<b>Differential vs USGC HSFO strip (\$/barrel)</b>					<b>USGC HSFO Strip (\$/barrel)</b>					
Slurry Oil	PPAPW00	65.27-65.29	65.280	+0.200	AAUGS00	10.73-10.75	10.740	+0.950							
No. 6 1.0% S 6 API	PUAAI00	65.45-65.47	65.460	-1.100	AAUGT00	10.91-10.93	10.920	-0.350							
USGC HSFO	PUAFZ00	55.27-55.29	55.280	+0.200	AAUGU00	0.73-0.75	0.740	+0.950		AAUGW00	54.53-54.550	54.540	-0.750		
RMG 380	PUBDM00	55.27-55.29	55.280	+0.200	AAUGV00	0.73-0.75	0.740	+0.950							
USGC HSFO swap BalMo(Mar)	AARZT00	54.50-54.60	54.55	+0.600											
USGC HSFO swap M1(Apr)	PUAXJ00	54.60-54.70	54.650	-0.650											
USGC HSFO swap M2(May)	PUAXL00	54.25-54.35	54.300	-1.050											
USGC HSFO swap Q1(Q2 21)	PUAXN00	54.20-54.30	54.250	-0.680											
<b>(PGA page 330)</b>															
		<b>USGC RVP Adjustments (¢/gal)</b>													
CBOB -1 psi	AGLOB00		1.000	+0.500											
Prem CBOB -1 psi	AGLOC00		1.000	+0.500											
CBOB +1 psi	AGLOA00		-1.400	0.000											
Prem CBOB +1 psi	AGHOA00		-1.500	0.000											

## PRODUCT PRICE ASSESSMENTS

## U.S. GULF COAST

		Mid	Change		Mid	Change		Mid	Change	
<a href="#">(PGF page 760)</a>										
		Waterborne (¢/gal)			Diff vs USGC waterborne 87 (¢/gal)					
FOB Naphtha Cargo	AAXJP00	146.20-146.30	146.250	-1.250						
FOB Naphtha Cargo (\$/mt)	AAXJU00	552.70-552.80	552.750	-4.750						
Naphtha USGC vs Naphtha MOPJ (\$/mt)	ANAPD00		-14.250	+7.250						
DAP LSR Naphtha Parcel	AAXQK00		145.750	-1.250						
DAP LSR Naphtha Parcel (\$/mt)	AAXQM00		584.460	-5.010						
DAP LSR Naphtha Parcel diff**	AAXQN00		5.000	+2.000						
Naphtha barge	AALPG00	170.44-170.54	170.490	+2.440	AASGZ00		-19.000			
Heavy naphtha barge	AALPI00	173.44-173.54	173.490	+2.440	AASHD00		-16.000			
MTBE	PHAKX00	191.40-191.50	191.450	-9.440						
								Diff vs USGC pipeline 87 (¢/gal)		
Alkylate*	AAXBAA00	197.950	+1.700	AAFIE00	8.000	0.000	AAXB00	10.000	0.000	
Raffinate*	AAXB00	169.950	+1.700	AAJMU00	-20.000	0.000	AAXB00	-18.000	0.000	
Reformate*	AAXBC00	217.950	+1.700	AAJMV00	28.000	0.000	AAXBF00	30.000	0.000	

LSR = Light Straight Run. \*=DAP barge. \*\*= Diff to Mont Belvieu non-Targa natural gasoline.

Note: Platts line space assessments reflect the physical trade of gasoline or distillates at two locations agreed upon by the parties along the Colonial Pipeline between Pasadena, Texas, and Linden, New Jersey. The assessments represent the premium or discount paid by a buyer while taking refined product off the line at one location while giving product to the seller at another.

U.S. GULF COAST PIPELINE CYCLES, MAR 1 [\(PGA page 156\)](#)

(¢/gal)		Pipeline	Mid		Cycle	RVP		Pipeline	Mid		Cycle	RVP	
<b>Gasoline</b>													
Unl-87	AAELC00	187.44-187.54	187.490	AAELCCY	15	AAELCRV	11.5	ULSD	AAUJW00	179.42-179.52	179.470	AAUJWCY	16
Unl-87	AAELD00	186.69-186.79	186.740	AAELDCY	16	AAELDRV	11.5	ULSD	AAUJX00	178.92-179.02	178.970	AAUJXCY	17
Unl-87	AAELE00	188.44-188.54	188.490	AAELECY	17	AAELERV	9.0	ULSD	AAUJY00	178.42-178.52	178.470	AAUJYCY	18
Unl-87	AAELF00	187.69-187.79	187.740	AAELFCY	18	AAELFRV	9.0	ULSD	AAUJZ00	177.92-178.02	177.970	AAUJZCY	19
Unl-87	AAELG00	186.94-187.04	186.990	AAELGCV	19	AAELGRV	9.0	ULSD	AAUKD00	177.42-177.52	177.470	AAUKDCY	20
Unl-87	AAELH00	186.19-186.29	186.240	AAELHCY	20	AAELHRV	9.0	No. 2	AAELW00	163.62-163.72	163.670	AAELWCY	15
CBOB 87	AARQW00		184.240	AARQWCY	16	AARQWRV	12.5	ULS heating oil	AAXFJ00	167.27-167.37	167.320	AAXFJCY	15
CBOB 87	AARQX00		185.990	AARQXCY	17	AARQXRV	10.0	ULS heating oil	AAXFK00	166.82-166.92	166.870	AAXFKCY	16
CBOB 87	AARQY00		185.240	AARQYCY	18	AARQYRV	10.0	ULS heating oil	AAXFL00	166.32-166.42	166.370	AAXFLCY	17
CBOB 87	AARQZ00		184.490	AARQZCY	19	AARQZRV	10.0	ULS heating oil	AAXFM00	165.82-165.92	165.870	AAXFMCY	18
CBOB 87	AARQA00		183.740	AARQACY	20	AARQARV	10.0	ULS heating oil	AAXFN00	165.32-165.42	165.370	AAXFNCY	19
								ULS heating oil	AAXFP00	164.82-164.92	164.870	AAXFPCY	20
<b>Distillates</b>								<b>Forward pipeline strip</b>					
Jet kero	AAELQ00	164.62-164.72	164.670	AAELQCY	16			ULSD 15-30 Day	AUSGI00		177.270		
Jet kero	AAELR00	164.12-164.22	164.170	AAELRCY	17			ULSD 21-35 Day	AUSGJ00		176.960		
Jet kero	AAELS00	163.62-163.72	163.670	AAELSCY	18			ULSD 7-21 Day	AUSGK00		177.710		
Jet kero	AAELT00	163.52-163.62	163.570	AAELTCY	19			Jet Fuel 15-30 Day	AUSGE00		163.350		
Jet kero	AAELU00	163.42-163.52	163.470	AAELUCY	20			Jet Fuel 21-35 Day	AUSGF00		163.300		
Jet kero	AAELV00	163.32-163.42	163.370	AAELVCY	21			Jet Fuel 7-21 Day	AUSGG00		163.430		
ULSD	AAUJV00	179.87-179.97	179.920	AAUJVCY	15								



## PRODUCT PRICE ASSESSMENTS

## WEST COAST PIPELINE, MAR 1 (PGA page 158)

			Mid	Change		RVP			Mid	Change
<b>California</b>										
(¢/gal)		<u>Los Angeles</u>						<u>Differential to NYMEX</u>		
Unl 84	AAUHA00	198.24-198.34	198.290	-2.010	AAUHARV	10.0	AANYX84		4.000	-1.250
Prem unl 90	PGABG00	215.74-215.84	215.790	-2.010	PGABGRV	10.0	AANYX85		21.500	-1.250
CARBOB	AAKYJ00	199.24-199.34	199.290	-2.010	AAKYJRV	6.0	AANVX00	4.95/5.05	5.000	-1.250
CARBOB prem	AAKYL00	216.74-216.84	216.790	-2.010	AAKYLRV	6.0	AANYX86		22.500	-1.250
Jet fuel	PJAAP00	170.87-170.97	170.920	-2.390			AANYV00	-11.05/-10.95	-11.000	0.000
ULS (EPA) diesel	POAET00	193.37-193.47	193.420	-1.390			AANVZ00	11.45/11.55	11.500	+1.000
CARB diesel	POAAK00	191.62-191.72	191.670	-2.140			AANWA00	9.70/9.80	9.750	+0.250
								<u>Differential to RBOB frontline</u>		
CARBOB paper 1-mo							AAKYR00	1.95/2.05	2.000	-1.000
CARBOB paper 2-mo							AAKYS00	2.25/2.30	2.250	+0.250
<b>San Francisco</b>										
(¢/gal)		<u>San Francisco</u>						<u>Differential to NYMEX</u>		
Unl 84	PGADG00	195.99-196.09	196.040	-0.760	PGADGRV	13.5	AANYX87		1.750	0.000
Prem unl 90	PGABO00	213.99-214.09	214.040	-0.760	PGABORV	13.5	AANYX88		19.750	0.000
CARBOB unl	AAKYN00	195.99-196.09	196.040	-0.760	AAKYNRV	6.0	AANYX89		1.750	0.000
CARBOB prem	AAKYP00	213.99-214.09	214.040	-0.760	AAKYPRV	6.0	AANYX90		19.750	0.000
Jet Fuel	PJABC00	170.87-170.97	170.920	-2.390			ADINA00		-11.000	0.000
ULS (EPA) diesel	POAEY00	182.87-182.97	182.920	-1.390			ADLAE00		1.000	+1.000
CARB diesel	POAAL00	182.87-182.97	182.920	-1.390			ADLAF00		1.000	+1.000
<b>Other West</b>										
(¢/gal)		<u>Phoenix</u>						<u>Differential to NYMEX</u>		
CBG/RBOB unl	AADDP00	200.99-201.09(a)	201.040	-2.010	AADDPRV	8.0	AANYX91		6.750	-1.250
CBG/RBOB prem	PPXDJ00	208.99-209.09(b)	209.040	-2.010	PPXDJRV	8.0	AANYX92		14.750	-1.250
<b>Northwest</b>										
(¢/gal)		<u>Seattle</u>						<u>Differential to NYMEX</u>		
Unl 84	AAXJE00	192.49-192.59	192.540	-0.760	AAXJERV	15.0	AANYX93		-1.750	0.000
Prem unl 90	AAXJF00	211.49-211.59	211.540	-0.760	AAXJFRV	15.0	AANYX94		17.250	0.000
Jet fuel	PJABB00	170.87-170.97	170.920	-2.390			ADIOA00		-11.000	0.000
ULS (EPA) diesel	AAUEX00	184.72-184.82	184.770	-0.640			ADLAH00		-1.150	0.000
(¢/gal)		<u>Portland</u>						<u>Differential to NYMEX</u>		
Unl 84	AAXJC00	192.49-192.59	192.540	-0.760	AAXJCRV	13.5	AANYX95		-1.750	0.000
Prem unl 90	AAXJD00	211.49-211.59	211.540	-0.760	AAXJDRV	13.5	AANYX96		17.250	0.000
ULS (EPA) diesel	AAUEY00	185.87-185.97	185.920	-0.640			ADLAG00		4.000	+1.750

(a)=84 octane; (b)=90 octane

## WEST COAST WATERBORNE, MAR 1 (PGA page 158)

(¢/gal)			Mid	Change
Unl 87	PGADI00	198.24-198.34	198.290	-2.010
Jet fuel	PJABI00	169.87-169.97	169.920	-2.390

## PRODUCT PRICE ASSESSMENTS

## LATIN AMERICA, FOB, MAR 1 (PGA page 164)

			\$/barrel	Mid	Change		
<b>Argentina</b>							
ULSD CIF	AAXWZ00			73.050	-1.560		
<b>Colombia</b>							
FO 1.75% S FOB	PPAR000	56.54-56.56		56.550	-0.740		
Diluent Naphtha Ex-Ship	AAXYB00			60.580	-0.760		
<b>Ecuador</b>							
FO 2.2% S FOB	PPASL00	52.54-52.56		52.550	-0.740		
RON 93 CIF	AAXYC00			75.200	-0.220		
ULSD CIF	AAXWF00			72.560	-1.220		
<b>Peru</b>							
Naphtha FOB	PAAAS00	68.13-68.15		68.140	-0.180		
FO 1.6% S FOB	PPARK00	54.24-54.26		54.250	-0.740		
Natural Gasoline FOB	AAXWD00			57.360	-0.520		
ULSD CIF	AAXWY00			72.810	-1.220		
							<b>Peso/liter Change</b>
<b>Mexico cargo</b>							
Gasoline CIF Eastern Mexico	AAXWA00			73.750	-0.270	AATFH00	9.560 -0.190
Gasoline CIF Rosarito	AATFA00			76.280	-0.340	AATFK00	9.890 -0.200
Gasoline CIF Lazaro Cardenas	AATFD00			75.810	-0.340	AATFN00	9.830 -0.200
ULSD CIF Eastern Mexico	AAXWE00			70.190	-1.220	AATFI00	9.100 -0.300
ULSD CIF Rosarito	AATFB00			72.090	-0.670	AATFL00	9.350 -0.230
ULSD CIF Lazaro Cardenas	AATFE00			72.320	-0.970	AATFO00	9.380 -0.270
Jet CIF Eastern Mexico	AATFG00			69.800	-1.080	AATFJ00	9.050 -0.280
Jet CIF Rosarito	AATFC00			72.560	-1.050	AATFM00	9.410 -0.280
Jet CIF Lazaro Cardenas	AATFF00			72.050	-1.060	AATFP00	9.340 -0.290

## CARIBBEAN CARGOES, FOB, MAR 1 (PGA page 162)

			Mid	Change
<b>Jet kerosene</b>				
		\$/mt		
Jet kerosene	PJAAD00	554.16-554.22	554.190	-8.540
<b>Jet kerosene</b>				
		c/gal		
Jet kerosene	PJAAD10	165.42-165.44	165.430	-2.550
<b>No. 6 2.0% S</b>				
		\$/barrel		
No. 6 2.0% S	PUAAS00	55.26-55.28	55.270	-0.450

## TRINIDAD PRODUCT POSTINGS (PGA page 466)

Effective date 24Feb21

		c/gal
Mogas 92 RON Unleaded	PPRAE00	223.00
Mogas 95 RON Unleaded	PPRAF00	228.00
Dual Purpose Kerosene	PPRAB00	196.00
Gasoil 45 Cetane 0.1%S	PPRAC00	197.00
<b>Bunker C Fuel Oil</b>		
		\$/b
Bunker C Fuel Oil	PPRAA00	66.00

Source: Paria

## GAS LIQUIDS (c/gal), MAR 1 (PGA page 780)

			Mid	Change
<b>Mont Belvieu</b>				
Ethane/propane	PMUDA05	17.575-17.675	17.625	-0.125
Ethane purity	PMUDB05	22.575-22.675	22.625	-0.125
Ethane mo. 2	AAWUC00	22.700-22.800	22.750	-0.125
Propane	PMAAY00	96.950-97.050	97.000	+2.250
Propane LST	PMABQ00	96.325-96.425	96.375	+1.750
Propane mo. 2	AAWUD00	96.950-97.050	97.000	+2.250
Propane mo. 2 LST	AAWUE00	95.950-96.050	96.000	+1.750
Normal butane non-LST	PMAAI00	104.200-104.300	104.250	+2.500
Butane LST	PMABR00	105.450-105.550	105.500	+4.000
N-Butane mo. 2	AAWUF00	97.200-97.300	97.250	-4.500
Isobutane	PMAAB00	104.200-104.300	104.250	+0.750
Natural gasoline LST	AAIVF00	141.450-141.550	141.500	-2.750
Natural Targa	PMABW05	141.200-141.300	141.250	-2.750
Natural non-Targa	PMABY05	140.700-140.800	140.750	-3.250
Nat gasoline mo. 2 non-Targa	AAWUG00	138.200-138.300	138.250	-2.500
<b>Conway</b>				
Ethane/propane	PMAA000	25.450-25.550	25.500	-8.500
Propane	PMAAT00	91.950-92.050	92.000	-13.000
Normal butane non-LST	PMAAD00	93.950-94.050	94.000	-3.000
Isobutane	PMAAA00	121.950-122.050	122.000	+2.000
Natural gasoline	PMAAQ00	139.450-139.550	139.500	-1.750
<b>Other hubs</b>				
Hattiesburg propane	AALBC00	98.950-99.050	99.000	-6.000
<b>(\$/mt)</b>				
Waterborne FOB USGC propane	AAXIM00	491.140-491.160	491.150	+0.210
FOB USGC propane vs. Mt Belvieu	AAXIO00	18.230-18.250	18.240	0.000
VLGC freight rates Houston to NWE	AAXIQ00	36.990-37.010	37.000	0.000
VLGC freight rates Houston to Japan	AAXIS00	66.990-67.010	67.000	0.000
<b>(c/gal)</b>				
Waterborne FOB USGC propane	AAXIN00	94.260-94.280	94.270	+0.040
FOB USGC propane vs. Mt Belvieu	AAXIP00	3.450-3.550	3.500	0.000
VLGC freight rates Houston to NWE	AAXIR00	7.050-7.150	7.100	0.000
VLGC freight rates Houston to Japan	AAXIT00	12.850-12.870	12.860	0.000

## PRODUCT PRICE ASSESSMENTS

## EUROPEAN MONTHLY AVERAGES, FEBRUARY 2021

(\$/mt)		Mid	Change		Mid	Change
<a href="#">(PGA page 1115)</a>						
	<b>Cargoes FOB Med basis Italy</b>				<b>Cargoes CIF Med basis Genoa/Lavera</b>	
Prem unl 10 ppm	<a href="#">AAWZA03</a>	561.488-561.988	561.738	+65.975	<a href="#">AAWZB03</a>	571.325-571.825 571.575 +68.437
Naphtha physical*	<a href="#">PAAAI03</a>	532.300-532.800	532.550	+49.612	<a href="#">PAAAH03</a>	545.675-546.175 545.925 +52.925
Jet av. fuel	<a href="#">AAIDM00</a>	503.325-503.825	503.575	+48.812	<a href="#">AAZBN03</a>	520.688-521.188 520.938 +52.900
10ppm ULSD	<a href="#">AAWY03</a>	498.638-499.138	498.888	+54.225	<a href="#">AAWYZ03</a>	510.625-511.125 510.875 +56.900
Gasoil 0.1%	<a href="#">AAVJI03</a>	489.450-489.950	489.700	+49.900	<a href="#">AAVJJ03</a>	502.138-502.638 502.388 +52.500
1% fuel oil	<a href="#">PUAAK03</a>	419.088-419.588	419.338	+55.663	<a href="#">PUAAJ03</a>	426.900-427.400 427.150 +57.450
3.5% fuel oil	<a href="#">PUAAZ03</a>	340.188-340.688	340.438	+26.538	<a href="#">PUAA03</a>	347.875-348.375 348.125 +28.212

\*Naphtha FOB Med is basis East Med

[\(PGA page 1111\)](#)

	<b>Cargoes FOB NWE</b>			<b>Cargoes CIF NWE basis ARA</b>		
Gasoline 10 ppm				<a href="#">AAXFQ03</a>	566.438-566.938	566.688 +65.350
Naphtha physical				<a href="#">PAAAL03</a>	555.088-555.588	555.338 +54.875
Naphtha swaps				<a href="#">PAAAJ00</a>	545.688-546.188	545.938 +52.113
Jet kerosene	<a href="#">PJAAV03</a>	513.638-514.138	513.888	+52.425	<a href="#">PJAAU03</a>	522.188-522.688 522.438 +52.900
10ppm ULSD	<a href="#">AAVBF03</a>	499.350-499.850	499.600	+58.300	<a href="#">AAVBG03</a>	509.363-509.863 509.613 +58.863
Diesel 10 ppm NWE	<a href="#">AAWZD03</a>	500.750-501.250	501.000	+58.425	<a href="#">AAWZC03</a>	511.200-511.700 511.450 +59.000
Diesel 10 ppm UK				<a href="#">AAVBH03</a>	512.775-513.275	513.025 +57.512
Diesel 10ppm UK cargoes CIF NWE – original (French) spec	<a href="#">AUKDA03</a>		512.763	+59.000		
Gasoil 0.1%	<a href="#">AAYWR03</a>	490.400-490.900	490.650	+53.487	<a href="#">AAYWS03</a>	503.488-503.988 503.738 +54.188
1% fuel oil	<a href="#">PUAAM03</a>	412.588-413.088	412.838	+55.738	<a href="#">PUAAL03</a>	420.850-421.350 421.100 +57.062
3.5% fuel oil	<a href="#">PUABB03</a>	333.913-334.413	334.163	+34.100	<a href="#">PUABA03</a>	345.025-345.525 345.275 +35.775
0.5%-0.7% straight run	<a href="#">PKABA03</a>	434.925-435.925	435.425	+50.925		

[\(PGA pages 1113 & 1381\)](#)

	<b>Barges FOB Rotterdam</b>		
98 RON unl	<a href="#">AAKOE00</a>	588.338-588.838	588.588 +64.250
Prem unl	<a href="#">PGABM03</a>	561.713-562.213	561.963 +68.975
Eurobob	<a href="#">AAQZV03</a>	551.338-551.838	551.588 +64.250
MTBE*	<a href="#">PHBFZ03</a>	607.400-607.900	607.650 +75.662
Naphtha physical	<a href="#">PAAAM03</a>	551.088-551.588	551.338 +54.875
Jet kerosene	<a href="#">PJABA03</a>	522.125-522.625	522.375 +56.412
Diesel 10 ppm*	<a href="#">AAJUW00</a>	504.950-505.450	505.200 +58.012
Gasoil 50 ppm	<a href="#">AAUQC03</a>	500.313-500.813	500.563 +55.363
Gasoil 0.1%*	<a href="#">AAYWT03</a>	496.975-497.475	497.225 +56.012
1% fuel oil	<a href="#">PUAAP03</a>	411.338-411.838	411.588 +55.013
3.5% fuel oil	<a href="#">PUABC03</a>	346.525-347.025	346.775 +35.712
3.5% 500 CST fuel oil	<a href="#">PUAGN03</a>	344.525-345.025	344.775 +35.750
380 CST	<a href="#">PUAYW03</a>	359.450-360.450	359.950 +36.500

\*FOB Amsterdam-Rotterdam-Antwerp



## CRUDE PRICE ASSESSMENTS

## INTERNATIONAL, MAR 1

(\$/barrel)		Mid	Change
(PGA page 2210)			
Dubai (May)	PCAA00	64.18-64.20	64.190 -0.090
Dubai (Jun)	PCAAU00	63.47-63.49	63.480 -0.650
Dubai (Jul)	PCAAV00	62.87-62.89	62.880 -0.790
MEC (May)	AAWSA00	64.18-64.20	64.190 -0.090
MEC (Jun)	AAWSB00	63.47-63.49	63.480 -0.650
MEC (Jul)	AAWSC00	62.87-62.89	62.880 -0.790
Oman (May)	PCABS00	64.19-64.21	64.200 -0.090
Oman (Jun)	AAHZF00	63.48-63.50	63.490 -0.650
Oman (Jul)	AAHZH00	62.88-62.90	62.890 -0.790
Oman cash/OSP (May)	PCABT00	-0.05-0.01	-0.030 -3.410
(PGA page 1212)			
Brent (DTD)	PCAAS00	65.62-65.63	65.625 -0.295
DTD NSL	AAOFD00	65.62-65.63	65.625 -0.295
Dated Brent (CIF)	PCAKM00		66.290 -0.175
Brent (May)	PCAAQ00	65.08-65.10	65.090 -0.970
Brent (Jun)	PCAAAR00	64.33-64.35	64.340 -1.030
Brent (Jul)	PCARR00		63.630 -1.080
North Sea Basket	AAGIZ00	65.77-65.79	65.780 -0.305
(PGA page 218)			
Brent/WTI 1st	AALAU00	3.57/3.59	3.580 -0.160
Brent/WTI 2nd	AALAV00	3.28/3.30	3.290 -0.040
Brent/WTI 3rd	AALAY00		3.170 0.000
Brent EFP (May)	AAGVX00	0.21/0.23	0.220 +0.250
Brent EFP (Jun)	AAGVY00	0.19/0.21	0.200 -0.050
Brent EFP (Jul)	AAMVY00		0.200 -0.060
<b>Swaps (PGA page 2658)</b>			
Dubai (Apr)	AAHBM00	63.46-63.50	63.480 -0.650
Dubai (May)	AAHBN00	62.86-62.90	62.880 -0.790
Dubai (Jun)	AAHBO00	62.18-62.22	62.200 -0.930
MOG (Apr)	AAHZP00	63.47-63.51	63.490 -0.650
MOG (May)	AAHZR00	62.87-62.91	62.890 -0.790
MOG (Jun)	AAHZT00	62.19-62.23	62.210 -0.930
Oman/Dubai Swap (Apr)	AAIHJ00	-0.01/0.03	0.010 0.000
Oman/Dubai Swap (May)	AAIHL00	-0.01/0.03	0.010 0.000
Oman/Dubai Swap (Jun)	AAIHN00	-0.01/0.03	0.010 0.000

## ASIA (\$/barrel), MAR 1 (PGA page 2210)

		Mid	Change
Brent (May)	PCAJG00	65.78-65.82	65.800 -0.800
Brent (Jun)	PCAJI00	65.08-65.12	65.100 -0.610
Brent (Jul)	PCAJ000		64.390 -0.720
Brent (DTD)	AAXPG00		66.350 +0.325
Brent/Dubai	AAJMS00	1.60/1.62	1.610 -0.710
WTI (Apr)	AAFFU00	62.57-62.61	62.590 -0.380
WTI (May)	AAFFW00	62.32-62.36	62.340 -0.300
WTI (Jun)	AAFFY00	61.82-61.86	61.840 -0.270

## NORTH SEA, MAR 1 (PGA page 1212)

(\$/barrel)		Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Dated Brent Diff				AAXEZ00	0.71/0.73	0.720 0.000
BNB	AAVJA00	65.69-65.71	65.700 -0.305	AAVJB00	0.79/0.80	0.795 -0.010
Forties	PCADJ00	65.70-65.72	65.710 -0.320	AAGWZ00	0.80/0.81	0.805 -0.025
Oseberg	PCAEU00	65.90-65.91	65.905 -0.295	AAGXF00	0.99/1.01	1.000 0.000
Ekofisk	PCADT00	65.80-65.82	65.810 -0.290	AAGXB00	0.90/0.91	0.905 +0.005
Troll	AAWEX00	66.05-66.06	66.055 -0.300	AAWEY00	1.14/1.16	1.150 -0.005
Statfjord	PCAEE00	65.25-65.26	65.255 -0.295	AAGXD00	0.34/0.36	0.350 0.000
Flotta Gold	PCACZ00	64.00-64.01	64.005 -0.245	AAGXH00	-0.91/-0.89	-0.900 +0.050
Duc	AAWEZ00	65.45-65.46	65.455 -0.245	AAWFL00	0.54/0.56	0.550 +0.050
Grane Blend	PCALA00		64.555 -0.245	PCALB00		-0.350 +0.050
Johan Sverdrup	AJSVA00		64.105 -0.245	AJSVB00		-0.800 +0.050
Statfjord (CIF)	AASAS00	66.18-66.19	66.185 -0.295	AASAT00	1.29/1.31	1.300 0.000
Gullfaks (CIF)	AASAU00	66.08-66.09	66.085 -0.295	AASAV00	1.19/1.21	1.200 0.000
Alvheim (CIF)	ALVHA00		66.535 -0.295	ALVHB00		1.650 0.000
Asgard (CIF)	ASGCA00		64.735 -0.245	ASGCB00		-0.150 +0.050
North Sea Dated Strip	AAKWH00	64.90-64.91	64.905 -0.295			
(\$/barrel)				<b>Spread vs fwd CIF Dated Brent</b>		
Dated Brent (CIF)	AAVJG00		66.290 -0.175	AAVJF00		1.405 +0.120
BNB (CIF)	PCAKP00		66.800 -0.305	AAVJC00		1.915 -0.010
Forties (CIF)	PCAKR00		66.345 -0.120	AAHX000		1.460 +0.175
Oseberg (CIF)	PCAKT00		66.640 -0.295	AAHXD00		1.755 0.000
Ekofisk (CIF)	PCAKV00		66.455 -0.290	AAHXB00		1.570 +0.005
Troll (CIF)	AAXJO00		66.795 -0.295	AAXJN00		1.910 0.000
North Sea CIF Dated Strip	AAHXE00		64.885 -0.295			

## WEST AFRICA, MAR 1 (PGA pages 1230 and 1232)

(\$/barrel)		Mid	Change	Spread vs fwd DTD Brent	Mid	Change
<b>Nigeria</b>						
Bonny Light	PCAIC00	63.78-63.81	63.795 -0.375	AAGXL00	-0.46/-0.44	-0.450 0.000
Qua Iboe	PCAI000	63.68-63.71	63.695 -0.375	AAGXN00	-0.56/-0.54	-0.550 0.000
Forcados	PCABC00	63.83-63.86	63.845 -0.375	AAGXP00	-0.41/-0.39	-0.400 0.000
Agbani	AAQZB00	62.93-62.96	62.945 -0.375	AAQZC00	-1.31/-1.29	-1.300 0.000
Escravos	AAEIZ00	63.78-63.81	63.795 -0.375	AAGXR00	-0.46/-0.44	-0.450 0.000
Brass River	AAEJB00	63.58-63.61	63.595 -0.375	AAGXV00	-0.66/-0.64	-0.650 0.000
Akpo	PCNGA00	62.88-62.91	62.895 -0.375	PCNGB00	-1.36/-1.34	-1.350 0.000
Bonga	PCNGC00	63.83-63.86	63.845 -0.375	PCNGD00	-0.41/-0.39	-0.400 0.000
Usan	AAXUQ00		63.995 -0.375	AAXUR00		-0.250 0.000
Erha	AAXU000		64.045 -0.375	AAXUP00		-0.200 0.000
Egina	AFONA00		64.395 -0.375	AFONB00		0.150 0.000
<b>Angola</b>						
Cabinda	PCAFD00	64.08-64.11	64.095 -0.425	AAGXT00	-0.16/-0.14	-0.150 -0.050
Nemba	AAQYZ00	63.23-63.26	63.245 -0.425	AAQZA00	-1.01/-0.99	-1.000 -0.050
Dalia	AAQYX00	64.18-64.21	64.195 -0.425	AAQYY00	-0.06/-0.04	-0.050 -0.050
Girassol	AASNL00	64.58-64.61	64.595 -0.425	AASJD00	0.34/0.36	0.350 -0.050
Hungo	AASLJ00	63.73-63.76	63.745 -0.425	AASJF00	-0.51/-0.49	-0.500 -0.050
Kissanje	AASLK00	64.18-64.21	64.195 -0.425	AASJE00	-0.06/-0.04	-0.050 -0.050
Pazflor	PCNGG00	64.38-64.41	64.395 -0.425	PCNGH00	0.14/0.16	0.150 -0.050
Plutonio	PCNGI00	63.83-63.86	63.845 -0.425	PCNGJ00	-0.41/-0.39	-0.400 -0.050
<b>Ghana</b>						
Jubilee	AAXUS00		63.995 -0.375	AAXUT00		-0.250 0.000
<b>Republic of Congo</b>						
Djeno	PCNGE00	63.33-63.36	63.345 -0.425	PCNGF00	-0.91/-0.89	-0.900 -0.050
<b>Chad</b>						
Doba	AAXUU00		65.295 -0.375	AAXUV00		1.050 0.000
30-60 Day Dtd strip	AAXRK00	64.24-64.25	64.245 -0.375			

## CRUDE PRICE ASSESSMENTS

## LONDON, MAR 1 (PGA page 1214)

(\$/barrel)		Brent CFD	Mid	Change		Dated Swap	Mid	Change
1wk (Jun)	PCAKA00	1.08/1.10	1.090	+0.840	AAJNV00	65.42/65.44	65.430	-0.190
2wk (Jun)	PCAKC00	0.77/0.79	0.780	+0.750	AAJOS00	65.11/65.13	65.120	-0.280
3wk (Jun)	PCAKE00	0.59/0.61	0.600	+0.750	AAJOU00	64.93/64.95	64.940	-0.280
4wk (Jun)	PCAKG00	0.58/0.60	0.590	+0.870	AAJOW00	64.92/64.94	64.930	-0.160
5wk (Jun)	AAGLU00	0.34/0.36	0.350	+0.730	AAJPC00	64.68/64.70	64.690	-0.300
6wk (Jun)	AAGLV00	0.21/0.23	0.220	+0.720	AAJPE00	64.55/64.57	64.560	-0.310
7wk (Jun)	AALCZ00	0.05/0.07	0.060	+0.710	AALAW00	64.39/64.41	64.400	-0.320
8wk (Jun)	AALDA00	-0.12/-0.10	-0.110	+0.690	AALAX00	64.22/64.24	64.230	-0.340

## MEDITERRANEAN, MAR 1 (PGA pages 1220, 1222, 1234)

(\$/barrel)			Mid	Change		Spread vs fwd DTD Brent	Mid	Change
Med Dtd Strip	AALDF00	64.90-64.92	64.910	-0.290				
BTC Dtd Strip	AAUFI00	64.85-64.86	64.855	-0.305				
15-45 Day Dtd Strip	AALGM00	64.70-64.72	64.710	-0.325				
Urals (Rdam)	PCAFW00	62.57-62.61	62.590	-0.510	AAGXJ00	-2.33/-2.31	-2.320	-0.220
Urals (Med)	PCACE00	63.04-63.08	63.060	-0.540	AAGXX00	-1.86/-1.84	-1.850	-0.250
Urals (Ex-Baltic)	AAGZT00	61.65-61.68	61.665	-0.510	AAHPJ00	-3.25/-3.24	-3.245	-0.220
Urals FOB Novo Suez	AAGZS00	62.01-62.05	62.030	-0.515	AAHPH00	-2.89/-2.87	-2.880	-0.225
Urals FOB Novo Afra	AAOTH00	61.24-61.28	61.260	-0.295	AAOTI00	-3.66/-3.64	-3.650	-0.005
Urals (Primorsk)	AAVWH00	61.62-61.66	61.640	-0.510	AAWVI00	-3.28/-3.26	-3.270	-0.220
Urals (RCMB)	AALIN00	63.76-63.79	63.775	-0.545				
Iranian Light FOB Kharg Island (Med)	AILKA00		63.170	-0.300	AILKB00		-1.740	-0.010
Iranian Heavy FOB Kharg Island (Med)	AIHKA00		61.620	-0.300	AIHKB00		-3.290	-0.010
Es Sider	PCACO00	63.34-63.38	63.360	-0.290	AAGYH00	-1.56/-1.54	-1.550	0.000
Siberian Lt	AAGZJ00	63.79-63.83	63.810	-0.390	AAHPK00	-1.11/-1.09	-1.100	-0.100
Saharan Bld	AAGZY00	64.49-64.53	64.510	-0.290	AAHPN00	-0.41/-0.39	-0.400	0.000
Azeri Lt	AAGZX00	65.64-65.67	65.655	-0.305	AAHPM00	0.79/0.81	0.800	0.000
Azeri Lt FOB Ceyhan Suez	AAUFM00	65.02-65.04	65.030	-0.330	AAUFN00	0.17/0.18	0.175	-0.025
Azeri Lt FOB Ceyhan Afra	AAUFL00	64.57-64.60	64.585	-0.195	AAUFL00	-0.28/-0.26	-0.270	+0.110
Azeri Lt FOB Supsa	AATHM00	63.97-64.00	63.985	-0.075	AATHN00	-0.88/-0.86	-0.870	+0.230
BTC FOB Ceyhan	AAUJH00	64.80-64.82	64.810	-0.260	AAUJL00	-0.05/-0.04	-0.045	+0.045
Suez Blend	PCACA00	60.20-60.23	60.215	-0.460	AAGYD00	-4.70/-4.69	-4.695	-0.170
Kirkuk	AAEJD00	63.89-63.93	63.910	-0.440	AAGYF00	-1.01/-0.99	-1.000	-0.150
Syrian Lt	AAHMM00	64.20-64.23	64.215	-0.195	AALOU00	-0.70/-0.69	-0.695	+0.095
Syrian Hvy	AAHMN00	59.37-59.40	59.385	-0.445	AALOV00	-5.53/-5.52	-5.525	-0.155
CPC Blend CIF	AAGZU00	62.34-62.38	62.360	-0.240	AAHPL00	-2.56/-2.54	-2.550	+0.050
CPC Blend FOB Suez	AALVX00	61.44-61.47	61.455	-0.215	AALVZ00	-3.46/-3.45	-3.455	+0.075
CPC Blend FOB Afra	AAOFV00	60.76-60.79	60.775	-0.025	AAOFW00	-4.14/-4.13	-4.135	+0.265
<a href="#">(PPE page 1616)</a>								
Urals Med CFD (Mar)	AAMDU00	-1.12/-1.10	-1.110	0.000	CPC Blend CFD (Mar)	AAOFX00	-2.000	0.000
Urals Med CFD (Apr)	AAMEA00	-0.91/-0.89	-0.900	0.000	CPC Blend CFD (Apr)	AAOFY00	-1.700	-0.250
Urals Med CFD (May)	UMCM003	-0.91/-0.89	-0.900	0.000	CPC Blend CFD (May)	AAOFZ00	-1.700	-0.250
Urals NWE CFD (Mar)	UNCM001	-1.71/-1.69	-1.700	-0.100				
Urals NWE CFD (Apr)	UNCM002	-1.71/-1.69	-1.700	-0.100				
Urals NWE CFD (May)	UNCM003	-1.46/-1.44	-1.450	-0.100				

## CANADA, MAR 1 (PGA page 230)

(\$/barrel)			Mid	Change
33-63 Day Dated Strip	AALEJ00	64.18-64.19	64.185	-0.375
Terra Nova	AAJUH00	64.07-64.10	64.085	-0.375
Hibernia	AAJKK00	64.22-64.25	64.235	-0.375
White Rose	AAVJX00	64.97-65.00	64.985	-0.375
		<b>Spread vs fwd DTD Brent</b>	<b>Mid</b>	<b>Change</b>
Terra Nova	AAJUJ00	-0.11/-0.09	-0.100	0.000
Hibernia	AAJKM00	0.04/0.06	0.050	0.000
White Rose	AAVJY00	0.79/0.81	0.800	0.000

## PLATTS EURO DENOMINATED CRUDE OIL ASSESSMENTS (€/barrel) (PGA page 1252)

Mar 1			Mid	Change
Dated Brent	AAPYR00	54.43-54.44	54.435	-0.085
Dated Brent (CIF)	PCAKN00		54.990	+0.019
Urals (Mediterranean)	AAPYS00	52.29-52.33	52.310	-0.290
WTI (Apr)	AAPYT00	51.22-51.23	51.225	-0.315
WTI MEH (Apr)	AAYSAA00		52.468	-0.315
Mars (Apr)	AAPYU00	50.84-50.86	50.850	-0.320

Euro/US\$ forex rate: 1.205. Platts Euro denominated crude oil assessments are based on market values and a Euro/US\$ forex rate at 4:30 PM local London time.

### CRUDE PRICE ASSESSMENTS

#### UNITED STATES (\$/barrel), MAR 1 (PGA pages 210, 214 & 230)

		Mid	Change
Platts AGS	AGSAA00	62.060	-0.810
WTI (Apr)	PCACG00	60.63-60.65	-0.860
WTI (May)	PCACH00	60.41-60.43	-0.810
WTI (Jun)	AAGT00	59.95-59.97	-0.780
WTI EFP (Apr)	AAGVT00	-0.01/0.01	0.000
WTI EFP (May)	AAGVU00	-0.01/0.01	0.000
WTI EFP (Jun)	AAGVV00	-0.01/0.01	0.000
Light Houston Sweet	AAXEW00	62.090	-0.910
Light Houston Sweet M2	AAVRY00	61.820	-0.860
LOOP Sour (Apr)	AALSM01	60.190	-0.760
LOOP Sour (May)	AALSM02	59.970	-0.710
LOOP Sour (Jun)	AALSM03	59.510	-0.680
Eagle Ford Marker	AAVAJ00	62.650	-0.820
Mars (Apr)	AAMBR00	60.28-60.30	-0.760
Mars (May)	AAMBU00	60.06-60.08	-0.710
Mars (Jun)	AAMBX00	59.60-59.62	-0.680
Mars/WTI (Apr)	AAGWH00	-0.36/-0.34	+0.100
Mars/WTI (May)	AAKTH00	-0.36/-0.34	+0.100
Mars/WTI (Jun)	AAMBO00	-0.36/-0.34	+0.100
LOOP/WTI (Apr)	AALOM01	-0.450	+0.100
LOOP/WTI (May)	AALOM02	-0.450	+0.100
LOOP/WTI (Jun)	AALOM03	-0.450	+0.100
LOOP/Mars (Apr)	AALPM01	-0.100	0.000
LOOP/Mars (May)	AALPM02	-0.100	0.000
LOOP/Mars (Jun)	AALPM03	-0.100	0.000
Dated Brent	AAQB00	64.33-64.35	-1.520
P-Plus WTI	PCACI00	3.77/3.79	-0.060
P-5 WTI	AAFN00	57.390	-0.650
WTI-Delta	AAEJK00	0.39/0.41	-0.060
Kern River	PCABJ00	62.11-62.13	-2.040

#### US DOMESTIC CRUDE ASSESSMENTS LONDON CLOSE

(PGA page 1240)

		\$/barrel	Mid	Change
WTI (Apr)	AAQAR00	61.74-61.76	61.750	-0.570
WTI (May)	AAQAT00	61.50-61.52	61.510	-0.530
WTI (Jun)	AAQAV00	61.04-61.06	61.050	-0.490
WTI MEH (Apr)	AAVZR00		63.250	-0.570
WTI MEH (May)	AAXYD00		62.960	-0.530
LLS (Apr)	AAQBB00	63.89-63.91	63.900	-0.570
LLS (May)	AAQBD00	63.45-63.47	63.460	-0.680
Mars (Apr)	AAQAX00	61.29-61.31	61.300	-0.570
Mars (May)	AAQAZ00	61.15-61.17	61.160	-0.430
		Spread	Mid	Change
WTI (Apr)	AAQAS00	-0.01/0.01	0.00	0.000
WTI (May)	AAQAU00	-0.01/0.01	0.000	0.000
WTI (Jun)	AAQAW00	-0.01/0.01	0.000	0.000
WTI MEH (Apr)	AAVTA00		1.500	0.000
WTI MEH (May)	AAVWA00		1.450	0.000
LLS (Apr)	AAQBC00	2.14/2.16	2.150	0.000
LLS (May)	AAQBE00	1.94/1.96	1.950	1.950
Mars (Apr)	AAQAY00	-0.46/-0.44	-0.450	0.000
Mars (May)	AAQBA00	-0.36/-0.34	-0.350	+0.100

			Mid	Change	Spread vs WTI	Mid	Change	
WTI Midland	PCACJ00	61.58-61.60	61.590	-0.910	AGGVZ00	0.94/0.96	0.950	-0.050
WTI Midland (2nd month)	AAVZA00		61.370	-0.860	AAVXF00		0.950	-0.050
LLS (1st month)	PCABN00	62.78-62.80	62.790	-0.860	AGWH00	2.14/2.16	2.150	0.000
LLS (2nd month)	AAURC00	62.36-62.38	62.370	-0.960	AAURD00	1.94/1.96	1.950	-0.150
HLS (1st month)	PCABD00	63.18-63.20	63.190	-0.860	AAVWP00	2.54/2.56	2.550	0.000
HLS (2nd month)	AAURE00	62.76-62.78	62.770	-0.960	AAURF00	2.34/2.36	2.350	-0.150
WTS (1st month)	PCACK00	61.28-61.30	61.290	-0.910	AAVWB00	0.64/0.66	0.650	-0.050
WTS (2nd month)	AAURG00	61.06-61.08	61.070	-0.860	AAURH00	0.64/0.66	0.650	-0.050
WTI MEH	AAVYG00		62.090	-0.910	AAVRY00		1.450	-0.050
WTI MEH (2nd month)	AAVXE00		61.820	-0.860	AAVYA00		1.400	-0.050
Poseidon	AABHK00	59.53-59.55	59.540	-0.760	AAVWL00	-1.11/-1.09	-1.100	+0.100
Eugene Island	PCAF00	60.63-60.65	60.640	-0.760	AAVWD00	-0.01/0.01	0.000	+0.100
Thunder Horse Blend	AAWZK00	60.83-60.85	60.840	-0.760	AAVWZ00	0.19/0.21	0.200	+0.100
Wyoming Sweet	PCACM00	59.33-59.35	59.340	-0.710	AAVWF00	-1.31/-1.29	-1.300	+0.150
Basrah Light	AAEJH00	63.80-63.82	63.810	-0.670	AAVWG00	3.38/3.40	3.390	+0.140
Bonito	PCAI00	60.63-60.65	60.640	-0.760	AAVWV00	-0.01/0.01	0.000	+0.100
SGC	AASO00	59.58-59.60	59.590	-0.760	AASO00	-1.06/-1.04	-1.050	+0.100

			Mid	Change	Spread vs NYMEX WTI CMA	Mid	Change	
ANS (Cal)	PCAAD00	63.26-63.30	63.280	-0.740	AAVWX00	3.03/3.05	3.040	+0.060
WCS ex-Cushing	AAVWY00	56.48-56.50	56.490	-0.650	AAVWZ00	-3.76/-3.74	-3.750	+0.150
WCS ex-Nederland	AAVYA00		57.690	-0.650	AAVXA00		-2.550	+0.150
Bakken Williston	AAVPP00		59.290	-0.400	AAVXR00		-0.950	+0.400
Bakken Guernsey	AAVRR00	59.33-59.35	59.340	-0.700	AAVWV00	-0.91/-0.89	-0.900	+0.100
Bakken Clearbrook	AAVRL00	61.13-61.15	61.140	-0.650	AAVWR00	0.89/0.91	0.900	+0.150
Bakken USGC Pipe	ABAKA00		61.990	-0.900	ABAKB00		1.750	-0.100
Americas Crude Marker (Apr)	AAVHN00	59.53-59.55	59.540	-0.760				
Americas Crude Marker (May)	AAVHO00	59.31-59.33	59.320	-0.710				
Americas Crude Marker (Jun)	AAVHP00	58.85-58.87	58.860	-0.680				
Thums	PCACD00	63.74-63.76	63.750	-2.040				
Line 63	PCABM00	66.73-66.77	66.750	-0.860				
P-Plus Line 63	PCAFV00	2.39/2.41	2.400	0.000				

			Mid	Change	Spread vs Eagle Ford Yield	Mid	Change
Eagle Ford postings avg.	AAVAH00		57.830	-0.730	AAVAI00	-4.820	+0.090
		FOB USGC					
Platts AGS	AGSAA00		62.060	-0.810			
Bakken	ABAKC00		61.860	-0.810			
Eagle Ford Crude	AAVAT00		61.280	-0.810			
Eagle Ford Condensate	AAVAP00		60.330	-0.810			
WTI	AAVBA00		62.060	-0.810			
		FOB USGC Spread vs Dated Brent Strip					
Platts AGS	AGSAB00		-1.360	+0.740			
Bakken	ABAKE00		-1.560	+0.740			
Eagle Ford Crude	AEFCA00		-2.140	+0.740			
Eagle Ford Condensate	AEFCE00		-3.090	+0.740			
WTI	AWTUA00		-1.360	+0.740			

#### US CRUDE ASSESSMENTS SINGAPORE CLOSE

(PGA page 2208)

		Mid	Change
LOOP Sour (Apr)	AAZDA00	62.040	-0.580
LOOP Sour (May)	AAZDB00	61.790	-0.500
LLS (Apr)	AAZDC00	64.740	-0.380
LLS (May)	AAZDD00	64.440	-0.040
Southern Green Canyon	AAZDE00	61.440	-0.580
WTI MEH (Apr)	AAZDF00	64.090	-0.380
WTI MEH (May)	AAZDG00	63.790	-0.040

**CRUDE PRICE ASSESSMENTS**

**CANADIAN SPOT CRUDE ASSESSMENTS, MAR 1**

(PGA pages 230 & 232)		C\$/cu m	Mid	Change
Lloyd Blend	AALRM00	392.304-392.463	392.384	-11.638
Mixed Sweet	AALRT00	463.552-463.712	463.632	-3.543
Light Sour Blend	AALRZ00	459.174-459.333	459.254	-5.923
Midale	AAUCD00	452.009-452.169	452.089	-5.893
Condensates	AALSH00	486.638-486.798	486.718	-8.437
Syncrude Sweet Prem.	AASOL00	477.882-478.041	477.961	-3.604
WCS	AAPP000	388.324-388.483	388.403	-11.622
Cold Lake	AASZY00	387.528-387.687	387.607	-11.618

		\$/barrel	Mid	Change
Lloyd Blend	AALRK00	49.280-49.300	49.290	-1.250
Mixed Sweet	AALRR00	58.230-58.250	58.240	-0.200
Light Sour Blend	AALRX00	57.680-57.700	57.690	-0.500
Midale	AAUCC00	56.780-56.800	56.790	-0.500
Condensates	AALSF00	61.130-61.150	61.140	-0.800
Syncrude Sweet Prem.	AASOK00	60.030-60.050	60.040	-0.200
WCS	AAPPN00	48.780-48.800	48.790	-1.250
Cold Lake	AASZX00	48.680-48.700	48.690	-1.250

**Spread vs Canada Basis**

Lloyd Blend	AALRP00	-10.960/-10.940	-10.950	-0.450
Mixed Sweet	AALRV00	-2.010/-1.990	-2.000	+0.600
Light Sour Blend	AALSD00	-2.560/-2.540	-2.550	+0.300
Midale	AAUCE00	-3.460/-3.440	-3.450	+0.300
Condensates	AALSJ00	0.890/0.910	0.900	0.000
Syncrude Sweet Prem.	AASOM00	-0.210/-0.190	-0.200	+0.600
WCS	AAPP000	-11.460/-11.440	-11.450	-0.450
Cold Lake	AASZZ00	-11.560/-11.540	-11.550	-0.450

\*Canada Basis: See explanation at <http://www.platts.com/>

**DELIVERED-ASIA SPOT CRUDE ASSESSMENTS (\$/barrel) (PGA page 2238)**

US Delivered-Asia Spot Crudes		Mid	Change		Diff to Dubai		Diff to Asian Dated Brent
				Mid	Change	Mid	Change
WTI Midland (DES Singapore)	WTMSA00	65.150	-1.030	WTMSD00	2.950	-0.100	WTMSB00 1.460 -0.160
WTI Midland (DES Yeosu)	WTMYA00	65.650	-1.030	WTMYD00	3.450	-0.100	WTMYB00 1.960 -0.160

**Brazil Delivered-Asia Spot Crudes**

Tupi (DES Qingdao)	LUQDA00	66.050	-0.730	LUQDD00	3.850	+0.200	LUQDB00 2.360 +0.140
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**LATIN AMERICA CRUDE (\$/barrel), MAR 1 (PGA page 280)**

		FOB Crude	Mid	Change		Diff to WTI strip	Diff to Futures Brent strip	Diff to Dated Brent strip
Oriente	PCADE00	59.65-59.69	59.670	-0.835	PCAGU00	-0.650	AAXBH00 -3.240	AAXBH00 -3.370
Vasconia	PCAGI00	60.44-60.48	60.460	-0.760	PCAGR00	0.140	AAXCB00 -2.450	AAXBN00 -2.580
Roncador	AAQTL00	59.64-59.68	59.660	-0.760	AAQTK00	-0.660	AAXBT00 -3.250	AAXAY00 -3.380
Escalante	PCAGC00	64.39-64.43	64.410	-0.060	PCAG000	4.090	AAXBS00 1.500	AAXAX00 1.370
Loreto	PCAGH00	58.75-58.79	58.770	-0.835	PCAGQ00	-1.550	AAXBV00 -4.140	AAXBG00 -4.270
Mesa 30	AAITB00	60.49-60.53	60.510	-0.710	AAITH00	0.190	AAXCC00 -2.400	AAXB000 -2.530
Santa Barbara	AAITD00	62.80-62.84	62.820	-0.835	AAITJ00	2.500	AAXBU00 -0.090	AAXAZ00 -0.220
Marlim	AAITF00	59.69-59.73	59.710	-0.760	AAITL00	-0.610	AAXBY00 -3.200	AAXBJ00 -3.330
Napo	AAMCA00	57.65-57.69	57.670	-0.835	AAMCD00	-2.650	AAXBX00 -5.240	AAXBI00 -5.370
Castilla Blend	AAVEQ00	58.94-58.98	58.960	-0.760	AAVEQ01	-1.360	AAXBZ00 -3.950	AAXBK00 -4.080
Magdalena	AAWFR00	57.34-57.38	57.360	-0.760	AAWF500	-2.960	AAXCA00 -5.550	AAXBL00 -5.680
Liza	ALIZA00		62.810	-0.510	ALIZD00	2.490	ALIZC00 -0.100	ALIZB00 -0.230
Latin America WTI strip	AAXB000		60.320	-0.835				
Latin America Futures Brent strip	AAXBQ00		62.910	-0.810				
Latin America Dated Brent strip	AAXBR00		63.040	-0.810				

**DAILY OPEC BASKET PRICE (\$/barrel) (PGA page 207)**

26Feb	AAEUQ00	64.370	Change	-1.050
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The daily OPEC basket price represents an index of the following 11 grades: Algeria's Saharan Blend, Indonesia's Minas, Iranian Heavy, Iraq's Basra Light, Kuwait's Export, Libya's Es Sider, Nigeria's Bonny Light, Qatar's Marine, Saudi Arabia's Arab Light, Murban of the UAE and Venezuela's BCF 17.

**CRUDE OIL POSTINGS**

US (\$/barrel) (PGA page 250)	Effective date		Effective date		Effective date		Effective date	
		<b>Plains</b>		<b>Shell</b>		<b>Sunoco</b>	<b>Valero</b>	
WTI	PSADF09	57.12*	01 MAR 21	PSADI09	57.30*	01 MAR 21	PSADG09 58.00* 26 FEB 21	PSACS09 57.25* 01 MAR 21
WTS	PSAED09	56.12	01 MAR 21	PSAEG09	57.64	01 MAR 21	PSAEE09 53.00 26 FEB 21	
LLS	PSAM009	55.62	01 MAR 21	PSAMQ09	55.62	01 MAR 21	PSAMP09 56.50 26 FEB 21	PSATF09 59.38 01 MAR 21
Ok. Swt.	PSUS191	57.12	01 MAR 21	PSANX09	57.05	01 MAR 21	PSANW09 58.00 26 FEB 21	
Kansas	PSAPL09	47.47	01 MAR 21	PSUS112	49.78	01 MAR 21		PSAPE09 56.25 01 MAR 21
Wyo. Swt	PSAQZ09	54.22	01 MAR 21					
Eugene Island	AALBB00	52.62	01 MAR 21					
Eagle Ford						PSUS100 58.00 26 FEB 21		
Eagle Fd Cond						PSUS110 57.00 26 FEB 21		
		<b>Phillips66</b>		<b>FlintHls</b>			<b>Coffey</b>	
WTI	PSACP09	57.26*	01 MAR 21	AAUQN00	57.00	01 MAR 21	PSUS066 57.25 01 MAR 21	
WTS	PSADO09	57.12	01 MAR 21					
LLS	PSAMC09	56.01	01 MAR 21					
Ok. Swt	PSASL09	57.06	01 MAR 21				PSUS064 57.00 01 MAR 21	
Kansas							PSUS060 51.00 01 MAR 21	
Wyo. Swt.				PSUS264 54.25 01 MAR 21				
Wyo. Sr.				PSUS261 47.75 01 MAR 21				

\*P-5 WTI is a crude oil postings-based index as of 5:30 p.m. local New York time. Posted prices by the following companies are used in the index: Phillips66, Plains, Sunoco, Shell, and Valero. Postings available at presstime. Companies listed are representative of key crude oil purchasers.



**SPOT TANKER RATES, MAR 1**

Route							
From	To		Size (mt)	WS			Rate (\$/mt)
<b>Clean</b>							
<a href="#">(PGT page 1910)</a>							
Med	UKC	PFADCSZ	30k	PFADC10	150.00	TCABA00	16.62
Med	USAC	PFACWSZ	37k	PFACW10	115.00	TCABC00	18.12
Med	Med	PFADBSZ	30k	PFADB10	140.00	TCAAY00	7.70
UKC	UKC	PFALYSZ	22k	PFALY00	163.75	TCABV00	8.60
UKC	USAC	PFAMASZ	37k	PFAMA00	112.50	TCABX00	14.85
UKC	USGC	PFAMBSZ	37k	PFAMB00	107.50	TCACA00	19.45
BSea	Med	PFABXSZ	30k	PFABX00	150.00	TCAAP00	15.86
<a href="#">(PGT page 2920)</a>							
AG	India	PFABMSZ	35k	PFABM10	170.00	TCAAF00	11.87
AG	Japan	PFABNSZ	35k	PFABN10	115.00	TCAAH00	24.22
Sing	Japan	PFAEBSZ	30k	PFAEB10	140.00	TCABP00	14.55
Sing	HK	PFAKWSZ	30k	PFAKW10	340.00*	TCADI00	11.33
<a href="#">(PGT page 2922)</a>							
AG	Japan	PFAEYSZ	55k	PFAEY10	91.00	TCAAI00	19.16
AG	Japan	PFAMTSZ	75k	PFAMT00	75.00	TCAAJ00	15.80
<b>Dirty</b>							
<a href="#">(PGT page 1962)</a>							
Carib	USGC	PFANZSZ	50k	PFANZ00	147.50	TDABA00	13.41
Carib	USAC	PFALTSZ	70k	PFALT10	145.00	TDAAY00	13.73
<a href="#">(PGT page 1960)</a>							
Med	Med	PFAJPSZ	80k	PFAJP10	120.00	TDABL00	9.49
Med	USGC	PFAJOSZ	80k	PFAJ010	80.00	TDABU00	15.51
UKC	UKC	PFAKDSZ	80k	PFAKD10	95.00	TDACD00	6.49
UKC	USAC	PFAKESZ	80k	PFAKE10	65.00	TDACG00	8.98
<a href="#">(PGT page 1970)</a>							
WAF	USGC	PFAIASZ	130k	PFAIA10	50.00	TDACV00	9.89
UKC	USGC	PFAHNSZ	135k	PFAHN10	45.00	TDACH00	8.17
Med	USGC	PFAHGSZ	135k	PFAHG10	45.00	TDABS00	8.73
<a href="#">(PGT page 2970)</a>							
AG	Asia	PFAJDSZ	80k	PFAJD10	80.00	TDAAC00	13.71
<a href="#">(PGT page 2980)</a>							
AG	Asia	PFAOCSZ	270k	PFAOC00	30.50	TDAAB00	6.04
AG	USGC	PFAOGSZ	280k	PFAOG00	18.50	TDAAN00	6.87

\*values are in lumpsum

**PLATTS FUTURES ASSESSMENTS SINGAPORE MOC, MAR 1** [\(PGA page 703\)](#)

NYMEX RBOB (¢/gal)			NYMEX NY ULSD (¢/gal)		
Apr	XNRBA01	198.200	Apr	XNH0A01	186.970
May	XNRBA02	197.030	May	XNH0A02	186.230
Jun	XNRBA03	195.080	Jun	XNH0A03	185.610

**PLATTS FUTURES ASSESSMENTS, MAR 1**

NYMEX light sweet crude (\$/barrel) <a href="#">(PGA page 701)</a>		
<b>CME 2:30 PM ET settlement</b>		
Apr	AAWS001	60.640
May	AAWS002	60.420
Jun	AAWS003	59.960
Jul	AAWS004	59.380
<b>Platts 2:30 PM ET futures assessment</b>		
Apr	NYCRM01	60.550
May	NYCRM02	60.320
Jun	NYCRM03	59.850
Jul	NYCRM04	59.250
<b>CME 2:30 PM vs Platts 2:30 PM spread</b>		
Apr	AAWD001	0.090
May	AAWD002	0.100
Jun	AAWD003	0.110
Jul	AAWD004	0.130
<b>NYMEX RBOB (¢/gal) <a href="#">(PGA page 701)</a></b>		
<b>CME 2:30 PM ET settlement</b>		
Apr	AARS001	194.290
May	AARS002	193.330
Jun	AARS003	191.440
<b>Platts 2:30 PM ET futures assessment</b>		
Apr	NYRBM01	194.080
May	NYRBM02	193.080
Jun	NYRBM03	191.170
<b>CME 2:30 PM vs Platts 2:30 PM spread</b>		
Apr	AARD001	0.210
May	AARD002	0.250
Jun	AARD003	0.270
<b>NYMEX NY ULSD (¢/gal) <a href="#">(PGA page 701)</a></b>		
<b>CME 2:30 PM ET settlement</b>		
Apr	AAHS001	181.920
May	AAHS002	181.140
Jun	AAHS003	180.540
<b>Platts 2:30 PM ET futures assessment</b>		
Apr	NYHOM01	181.670
May	NYHOM02	180.890
Jun	NYHOM03	180.290
<b>CME 2:30 PM vs Platts 2:30 PM spread</b>		
Apr	AAHD001	0.250
May	AAHD002	0.250
Jun	AAHD003	0.250
<b>ICE Brent crude (\$/barrel) <a href="#">(PGA page 703)</a></b>		
<b>Platts 2:30 PM ET futures assessment</b>		
May	AAQB000	63.580
Jun	AAQB000	62.920
Jul	AAZZ000	62.240
Aug	AAVAL00	61.640

## FUTURES SETTLEMENTS, MAR 1

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>NYMEX Light sweet crude (\$/barrel) (PGA page 705)</b>								
Apr 21	NMCL001	60.64	-0.86	59.96	62.92	433827	424066	
May 21	NMCL002	60.42	-0.81	59.77	62.67	142066	284806	
Jun 21	NMCL003	59.96	-0.78	59.34	62.17	114922	271186	
Jul 21	NMCL004	59.38	-0.74	58.81	61.54	39366	164951	
Total	NMCL000					871908		XNCLP00 13002

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>NYMEX NY ULSD (\$/gal) (PGA page 705)</b>								
Apr 21	NMHO001	1.8192	-0.0373	1.8007	1.8779	64833	136975	
May 21	NMHO002	1.8114	-0.0317	1.7940	1.8695	42433	66560	
Jun 21	NMHO003	1.8054	-0.0295	1.7887	1.8619	26081	71004	
Jul 21	NMHO004	1.8016	-0.0273	1.7865	1.8586	6814	21383	
Total	NMHO000					146632		XNHOP00 9230

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)</b>								
Apr 21	NMRB001	1.9429	+0.0659	1.9178	1.9890	61987	130192	
May 21	NMRB002	1.9333	-0.0172	1.9093	1.9793	44780	75865	
Jun 21	NMRB003	1.9144	-0.0273	1.8916	1.9562	27575	64805	
Jul 21	NMRB004	1.892	-0.0343	1.8699	1.9323	9751	29568	
Total	NMRB000					158347		XNRBP00 14323

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>NYMEX Natural Gas (\$/MMBtu) (PGA page 705)</b>								
Apr 21	NMNG001	2.777	+0.01	2.724	2.809	71791	180082	
May 21	NMNG002	2.818	+0.01	2.766	2.841	30780	212242	
Jun 21	NMNG003	2.872	+0.01	2.823	2.893	16052	77143	
Jul 21	NMNG004	2.929	+0.01	2.881	2.948	15920	70130	
Total	NMNG000					185438		XNNGP00 2650

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>DME Oman crude (\$/barrel)** (PGA pages 702 &amp; 2710)</b>								
May 21 Asia	XDOA001	64.23	+0.14			1452		
May 21	DMOQ001	62.64	-1.45	62.64	64.32	198	101	
Jun 21	DMOQ002	61.99	-1.51	61.99	61.99	0	0	
Jul 21	DMOQ003	61.35	-1.46	61.35	61.35	0	0	
Aug 21	DMOQ004	60.70	-1.42	60.70	60.70	0	0	
Total	DMOQ000					198		XDOQP00 993

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>ICE Brent (\$/barrel) (PGA page 704)</b>								
May 21	ICLL001	63.69	-2.44	63.19	65.93	76	693406	
Jun 21	ICLL002	63.02	-1.40	62.51	65.20	16	359402	
Jul 21	ICLL003	62.33	-1.40	61.82	64.48	70456	219438	
Aug 21	ICLL004	61.76	-1.28	61.26	63.87	39423	119821	
Total	ICLL000					830098		XILLP00 24738

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>ICE BWAVE (Brent weighted futures average)(\$/barrel) (PGA page 704)</b>								
May 21	XIBW001	66.17						
Jun 21	XIBW002	65.13						
BWAVE data refer to previous day.								

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>ICE WTI (\$/barrel) (PGA page 704)</b>								
Apr 21	ICIC001	60.64	-0.86	59.99	62.92	3	48590	
May 21	ICIC002	60.42	-0.81	59.81	62.64	2	45714	
Jun 21	ICIC003	59.96	-0.78	59.40	62.08	6	71246	
Jul 21	ICIC004	59.38	-0.74	58.95	61.45	29621	25373	
Total	ICIC000					205109		XIICP00 5789

		Settlement	Change	Low	High	Volume*	Open interest	PNT***
<b>ICE low sulfur Gasoil (\$/mt) (PGA page 704)</b>								
Mar 21	ICLO001	526.75	-5.25	513.00	537.25	8	117386	
Apr 21	ICLO002	527.75	-5.00	514.25	537.75	87951	173425	
May 21	ICLO003	528.25	-4.75	514.75	538.00	32446	103891	
Jun 21	ICLO004	528.00	-4.00	514.50	537.00	31255	103997	
Total	ICLO000					337508		XILOP00 5690

\*Volume, open interest and PNT reflect prior trading day. PNT reflect volume for Privately Negotiated Trades or off-exchange.  
\*\*Oman settlements are Post Close settlements. \*\*\*Privately Negotiated Trade values found on PGA page 710

Source: CQG

## DUBAI STRUCTURE STRENGTHENS



Source: S&P Global Platts

## FIVE-DAY ROLLING AVERAGES, FIVE DAYS ENDING MARCH 1

		Conversion		
Naphtha (PGA page 34)				
		\$/barrel		¢/gal
Singapore	PAAAP00	65.58–65.62	(/42)	156.14–156.24
		\$/mt		¢/gal
Japan C/F	PAAAD00	598.20–603.35	(/3.78)	158.25–159.62
Arab Gulf	PAAAA00	576.08–581.23	(/3.78)	152.40–153.76
CIF NWE physical	PAAAL00	587.05–587.55	(/3.78)	155.30–155.44
Rotterdam barge	PAAAM00	583.05–583.55	(/3.78)	154.25–154.38
FOB Med	PAAAI00	563.05–563.55	(/3.78)	148.96–149.09
CIF Genoa	PAAAH00	577.15–577.65	(/3.78)	152.69–152.82
		¢/gal		\$/mt
US Gulf FOB cargo	AAXJP00	146.75–146.85	(*3.54669)	554.80–554.90
US Gulf DAP LSR parcel	AAXQK00	146.30	(*4.0083)	586.41

## Jet Kerosene (PGA page 35)

Jet Kerosene (PGA page 35)				
		\$/mt		¢/gal
CIF NWE cargo	PJAAU00	547.05–547.55	(/7.89)	165.08–165.23
Rotterdam barge	PJABA00	548.65–549.15	(/7.89)	165.57–165.72
FOB Med	AAIDL00	527.30–527.80	(/7.89)	159.12–159.27
CIF Genoa	AAZBN00	545.55–546.05	(/7.89)	164.63–164.78
Carib cargo	PJAAD00	572.14–572.20	(/7.7)	177.13–177.15
		¢/gal		\$/mt
US Gulf water	PJABM00	171.27–171.37	(*42)	567.56–567.89
US Gulf pipe	PJABO00	169.77–169.87	(*42)	562.59–562.92
NY barge	PJAAW00	171.90–172.00	(*42)	567.28–567.61
LA pipeline	PJAAP00	174.02–174.12	(*42)	555.13–555.45
Group 3	PJAAI00	182.65–182.75	(*42)	605.28–605.61
Chicago	PJAAF00	180.93–181.03	(*42)	599.57–599.90

## Crude Oil, FOB Source

Crude Oil, FOB Source				
		\$/barrel		
West Texas Int	PCACG00	62.09–62.11		
NYMEX Crude	XNCL001	62.28		
Mars	AMBR00	61.76–61.78		
Brent (DTD)	PCAS00	66.01–66.03		
Brent (First month)	PCAAQ00	66.19–66.21		
Dubai (First Month)	PCAA00	64.02–64.04		
Oman (First Month)	PCABS00	64.04–64.06		
Urals CIF med	PCACE00	63.51–63.55		
WTI Posting Plus	PCACI00	3.58–3.60		

## Gasoline, U.S. Market (PGA page 36)

		Unleaded		Premium
Gasoline, U.S. Market (PGA page 36)				
		¢/gal		
US Gulf water	PGACU00	188.59–188.69	PGAIX00	196.71–196.81
US Gulf pipe	PGACT00	186.59–186.69	PGAJB00	194.71–194.81
Group 3			PGABD00	214.05–214.15
LA Pipeline			PGABG00	213.25–213.35
SF Pipeline	PGADG00	198.75–198.85	PGABO00	216.75–216.85
Chicago	PGACR00	183.48–183.58	PPASQ00	201.23–201.33
NYMEX Unl	XNRB001	187.30		

		Conversion		
Gasoline, Intl. Market				
		Prem (\$/mt)		¢/gal
R'dam Barge Prem unl	PGABM00	608.55–609.05	(/3.51)	173.38–173.52
		\$/barrel		¢/gal
Singapore	POABC00	71.61–71.65	(/42)	170.51–170.60
Arab Gulf	POAAT00	69.87–69.91	(/42)	166.37–166.46
		\$/mt		¢/gal
0.1 CIF ARA	AAYWS00	530.70–531.20	(/3.133)	169.55–169.71
50 ppm Rotterdam barge	AAUQC00	528.55–529.05	(/3.133)	168.87–169.03
0.1 Rotterdam barge	AAYWT00	521.85–522.35	(/3.133)	166.73–166.88
0.1 FOB NWE	AAYWR00	517.55–518.05	(/3.133)	165.35–165.51
0.1 CIF Med	AAVJJ00	529.25–529.75	(/3.133)	169.09–169.25

## (PGA page 33)

Gasoi/Heating Oil (PGA page 32)				
		¢/gal		\$/barrel
L.A. LS diesel	POAET00	197.97–198.07	(*3.07)	607.77–608.08
S.F. LS diesel	POAEY00	186.57–186.67	(*3.07)	572.78–573.08
		¢/gal		\$/mt
NY barge	POAEG00	168.45–168.55	(*3.15)	530.63–530.95
US Gulf water	POAEE00	172.62–172.72	(*3.08)	531.68–531.98
US Gulf pipe	POAED00	168.12–168.22	(*3.08)	517.82–518.12
NYMEX NY ULSD	XNH001	187.96	(*3.08)	592.07

## Low Sulfur Resid Fuel Oil (PGA page 38)

Low Sulfur Resid Fuel Oil (PGA page 38)				
		\$/mt		\$/barrel
CIF ARA 1%	PUAAL00	444.85–445.35	(/6.35)	70.06–70.13
Rot bar 1%	PUAAP00	433.35–433.85	(/6.35)	68.24–68.32
NWE FOB 1%	PUAAM00	434.60–435.10	(/6.35)	68.44–68.52
Med FOB 1%	PUAAK00	441.40–441.90	(/6.35)	69.51–69.59
		\$/barrel		\$/mt
NY Cargo .3% HP	PUAAE00	80.18–80.20	(*6.7)	537.18–537.31
NY Cargo .3% LP	PUAAB00	80.18–80.20	(*6.7)	537.18–537.31
NY Cargo .7% Max	PUAAH00	70.06–70.08	(*6.5)	455.36–455.49
NY Cargo 1% Max	PUAAO00	65.57–65.59	(*6.5)	426.19–426.32
US Gulf 1%	PUAAI00	67.05–67.07	(*6.11)	423.76–423.88

## Hi Sulfur Resid Fuel Oil (PGA page 39)

Hi Sulfur Resid Fuel Oil (PGA page 39)				
		\$/mt		\$/barrel
Singapore 180	PUADV00	382.49–382.53	(/6.35)	60.23–60.24
Singapore 380	PPXDK00	377.19–377.23	(/6.35)	59.40–59.41
Arab Gulf 180	PUBAE00	373.08–373.12	(/6.35)	58.75–58.76
CIF ARA 3.5%	PUBAA00	364.10–364.60	(/6.35)	57.34–57.42
NWE FOB 3.5%	PUBBB00	350.50–351.00	(/6.35)	55.20–55.28
Med FOB 3.5%	PUAAZ00	356.65–357.15	(/6.35)	56.17–56.24
CIF Med 3.5%	PUAAY00	367.55–368.05	(/6.35)	57.88–57.96
		\$/barrel		\$/mt
USAC HSFO	PUAAX00	57.64–57.66	(*6.35)	365.99–366.12
USGC HSFO	PUAFZ00	55.85–55.87	(*6.35)	354.65–354.77
Carib 2.0%	PUAAS00	56.35–56.37	(*6.4)	360.64–360.77



