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## Energy Futures

### ICE LS GASOIL SETTLE (\$/mt)

MONTH	PRICE	CHANGE
February	557.00	-10.50
March	557.75	-10.00
April	557.25	-10.00

### ICE BRENT 16:30 UK MARKER (\$/bbl)

MONTH	PRICE	CHANGE
March	59.93	-0.27

### ICE BRENT SETTLE (\$/bbl)

MONTH	PRICE	CHANGE
March	60.64	1.65
April	60.78	1.60
May	61.01	1.57

### NATURAL GAS (\$/mmBtu)

MONTH	PRICE	CHANGE
February	3.501	-0.090
March	3.249	-0.040
April	2.846	-0.059

### NYMEX WTI CRUDE OIL (\$/bbl)

MONTH	PRICE	CHANGE
February	52.1100	1.6000
March	52.3900	1.5900
April	52.7000	1.5600

### NYMEX ULSD (cts/gal)

MONTH	PRICE	CHANGE
February	187.2200	1.9700
March	186.5000	2.2600
April	185.0300	2.4400

## US EIA Projects Sharp Diesel Margin Hike on IMO 2020 Mandate

The change in fuel specification for global bunker fuel on Jan. 1, 2020 is expected to put upward pressure on diesel margins and modest upward pressure on crude oil prices in late 2019 and early 2020, according to the Energy Information Administration (EIA). The EIA added that the gasoline margin would improve marginally. Diesel yields at refineries would increase at the expense of gasoline and residual fuel.

OPIS notes that the exact products margins would depend on the complexity of each individual refinery. The more-complex refineries could benefit from processing cheaper heavier crude, and light crude refineries could benefit from a higher yield of light products.

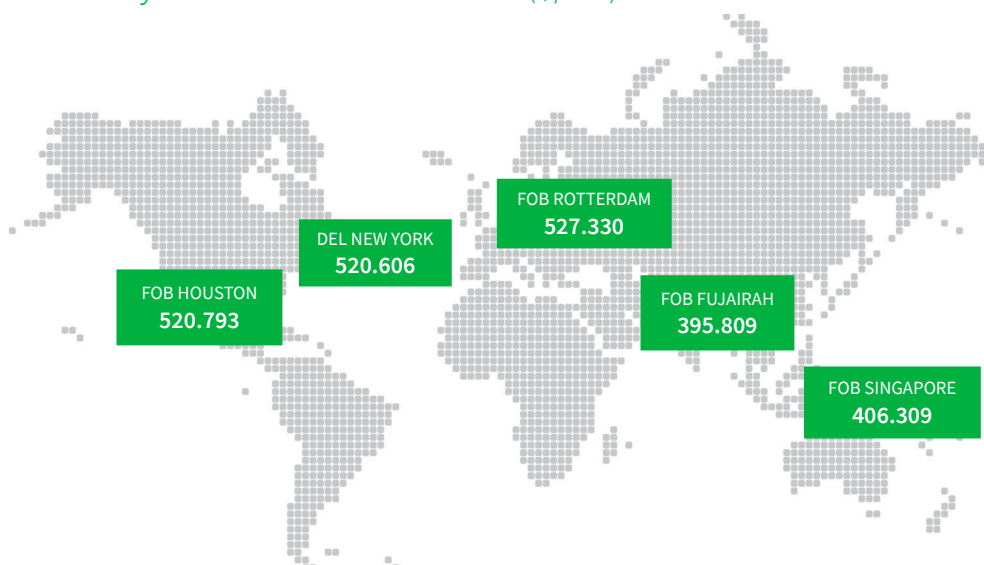
The expected increased premium on low-sulfur fuels will likely mean higher diesel fuel refining margins, which EIA forecasts will increase from an average of 43cts/gal in 2018 to 48cts/gal in 2019 and 65cts/gal in 2020.

Brent spot prices increase from an average of \$61/bbl in 2019 to \$65/bbl in 2020 with about \$2.50/bbl of this increase being attributable to higher demand for light-sweet crude oils priced off of Brent. EIA's analysis indicates that the price effects that result from implementing this new standard will be most acute in 2020 and will diminish over time.

Removing sulfur from residual oils or upgrading them to more valuable lighter products such as diesel and gasoline can be an expensive and capital-intensive process, it said. Refineries have two options with regard to residual oils: invest in more downstream units to upgrade residual oils into more valuable products or process lighter and sweeter crude oils.

EIA forecasts that the implementation of the new IMO fuel specification will widen discounts between light-sweet crude oil and heavy-sour crude oil, while also widening the price spreads between high- and low-sulfur petroleum products. As refiners maximize production of diesel fuel, distillate fuel refinery yields are forecast to increase from an average of 29.5% in 2018 to 29.9% in 2019 and 31.5% in 2020, while motor gasoline yields fall from an average of 46.9% in 2018 to averages of 46.5% in 2019 and 45.6% in 2020.

## 0.5% Very Low Sulfur Bulk Fuel Oil (\$/mt)



## ASIA-MIDEAST

### FOB SINGAPORE BULK FUEL OIL (\$/mt)

PRODUCT	DIFF	LOW	HIGH	MEAN
0.5% VLSFO	-- --	406.06	406.56	406.309
380 CST HSFO	3.65	366.06	366.56	366.309

### SINGAPORE BUNKERS (\$/mt delivered)

PRODUCT	LOW	HIGH	MEAN
MGO	557.07	557.57	557.315
0.5% VLSFO	415.56	416.06	415.809
HS 380 CST	375.56	376.06	375.809

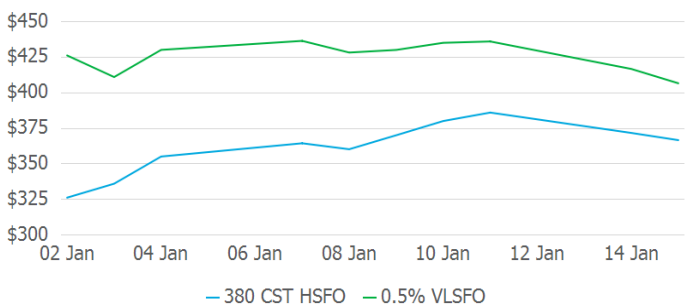
### FOB FUJAIRAH BULK FUEL OIL (\$/mt)

PRODUCT	LOW	HIGH	MEAN
0.5% VLSFO	395.56	396.06	395.809

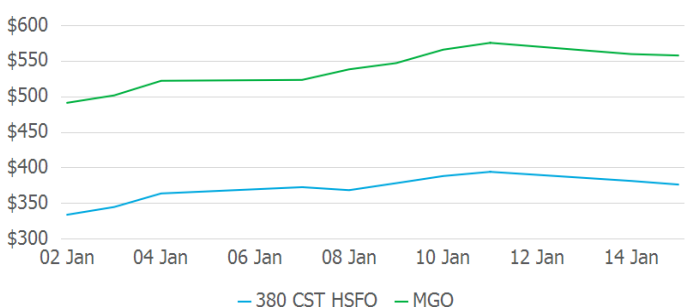
### FUJAIRAH BUNKERS (\$/mt delivered)

PRODUCT	LOW	HIGH	MEAN
MGO	577.07	577.57	577.315
0.5% VLSFO	405.06	405.56	405.309
HS 380 CST	365.06	365.56	365.309

### 30-DAY PRICES FOR SINGAPORE BULK VLSFO (\$/mt delivered)



### 30-DAY PRICES FOR SINGAPORE BUNKERS (\$/mt delivered)



## Prices fall with lower crude

Asia delivered bunker prices fell on lower crude and amid yet more offers of blending components from Indonesia.



There were no bids or offers seen in the fob Singapore 0.5% sulfur marine fuel market for the third consecutive session.

Taiwanese state-owned refiner CPC offered 0.5% sulfur marine fuel delivering at Kaohsiung, Taichung, Keelung and Hualien at \$529/mt, a premium of roughly \$100-104/mt over the 3.5% sulfur grade at all four ports.

Annual bunker sales in Singapore, the world's top bunkering hub, fell for the first time in four years in 2018, mainly due to lower demand for the high sulfur (HS) 380 CST grade.

Singapore sold 49.798 million mt of bunker fuels in 2018, around 2% lower than the previous year, preliminary estimates from the country's Maritime Port Authority showed. Singapore sold 50.636 million mt of marine fuels in 2017, a record high for the country.

Around 35.723 million mt of the HS 380 CST grade was sold in 2018, 6% lower than in 2017. The HS 380 CST grade accounted for 71.7% of Singapore's bunker sales in 2018, the lowest percentage since at least 2007.

Lower arbitrage inflows from west into Singapore and tightness in availability of on-specification product contributed to the fall in bunker sales. The resulting supply tightness had led to a spike in Singapore ex-wharf premiums in November.

Indonesian state-owned Pertamina offered through a tender 200,000 bl of decant oil (DCO) for Feb 7-11 loading from Balongan, its first offer for a Feb-loading DCO cargo. The pricing basis is the Singapore spot assessments of 180 CST HSFO. Bids are to be submitted by Jan 16 and remain valid till Jan 18.

DCO loading from Balongan has maximum viscosity of 50 CST, sulfur content of 0.5%, water content of 0.80% and flash point of 50 °C. DCO can be used as a bunker fuel blending component, among other uses.

Pertamina closed on Jan 9 a tender to sell 200,000 bl of decant oil (DCO) for Jan 17-18 loading from Balongan. Pertamina was likely to have awarded the tender on Jan 11 but this could not be confirmed.

Offers of residues from Pertamina appeared to have pick up in recent months. The refiner has offered at least one spot of DCO per month since December. It was seen to have offer just two other spot cargoes of DCO during the second half of 2018.

Pertamina also sells vacuum residue, which can also be used for fuel oil blending.

## EUROPE



### LSG drags down DMA

DMA weakened against crude on Tuesday, as low-sulfur gasoil futures fell sharply, while March Brent barely budged.

Front-month Brent fell by \$0.27/bbl to \$59.93/bbl, while February low-sulfur gasoil declined by \$10.50/ton to \$557/ton after hitting an intra-day high of \$564.58/ton.

The differential for dyed DMA to February LS gasoil was unchanged at minus \$35/ton, said sources.

Earlier in the day other sources pegged the market at minus \$35/ton to minus \$32/ton.

A total of 22,000 tons of fuel oil barges were heard traded on the disclosed market, with Gunvor the main seller and BP the main buyer.

The fuel oil market has weakened as a result of poor regional demand and a shut arb to Asia.

In IMO 2020 news, the EIA's short-term energy outlook report offered guidance for the first time on the likely effect of marine fuel sulfur content regulations.

“The change in fuel specification is expected to put upward pressure on diesel margins and modest upward pressure on crude oil prices in late 2019 and early 2020. EIA's analysis indicates that the price effects that result from implementing this new standard will be most acute in 2020 and will diminish over time.

“The expected increased premium on low sulfur fuels will likely mean higher diesel fuel refining margins, which EIA forecasts will increase from an average of 43 cents per gallon (gal) in 2018 to 48 cents/gal in 2019 and 65 cents/gal in 2020,” said the analysis.

In refinery news, the VDU at the currently closed Wilhemshaven refinery is likely to re-open in order to produce low-sulfur gasoil.

Middle distillate product was seen heading to the Donges refinery in advance of a turnaround which OPIS understands will begin next month.

The extensive turnaround, known by operator Total as “le grand arret”, occurs every six years at the refinery, and a big stoppage at Donges has long been pencilled in for 2019, with only the exact timing previously unknown.

Sources say that temporary contracts related to the maintenance last for eight weeks.

### FOB ROTTERDAM BULK FUEL OIL (\$/mt)

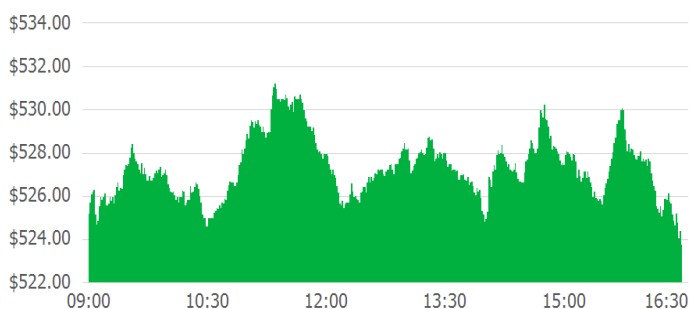
PRODUCT	BASIS DIFF	LOW	HIGH	MEAN
DMA*	-35.00	522.27	529.75	525.827
0.5% VLSFO*	-33.50	523.77	531.25	527.330
HSFO	--	340.50	342.00	341.000

\* Diff to Front Month LS Gasoil Futures Price as Displayed on Page 1 of this Report

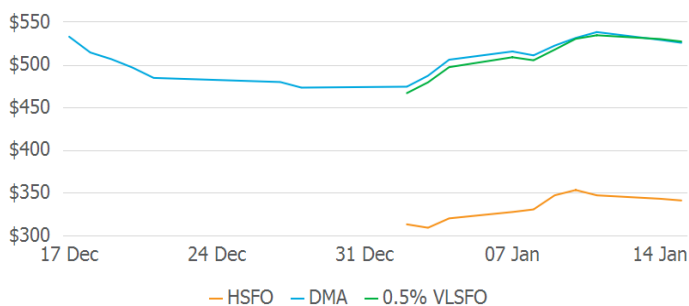
### ROTTERDAM BUNKERS (\$/mt delivered)

PRODUCT	LOW	HIGH	MEAN
DMA*	524.83	528.83	526.830
0.5% VLSFO*	526.33	530.33	528.330
HS 380 CST	341.00	343.00	342.000

### OPIS450 FULL-DAY PRICE FLUCTUATION FOR ROTTERDAM BULK 0.5% VLSFO (\$/mt delivered)



### 30-DAY PRICES FOR ROTTERDAM BULK (\$/mt delivered)



## AMERICAS

### FOB HOUSTON BULK FUEL OIL (\$/bbl)

PRODUCT	DIFF	LOW	HIGH	MEAN
0.5% VLSFO*	-3.93	72.70	76.70	74.700
3% HSFO	-- --	56.60	56.70	56.650

\* Diff to Front Month NYMEX ULSD Futures Price as Displayed on Page 1 of this Report

### DELIVERED BASIS NEW YORK HARBOR BULK FUEL OIL (\$/bbl)

PRODUCT	DIFF	LOW	HIGH	MEAN
0.3% ULSFO	-- --	67.95	68.05	68.000
0.5% VLSFO*	-3.96	72.67	76.67	74.673
1% SFO	-- --	57.75	57.85	57.800
3% HSFO	-- --	56.45	56.55	56.500

\* Diff to Front Month NYMEX ULSD Futures Price as Displayed on Page 1 of this Report

### U.S. GULF COAST LIGHT CYCLE OIL (cts/gal)

PRODUCT	LOW	HIGH	MEAN
LT Cycle Oil	1.72	1.73	1.725
LS LT Cycle Oil	1.74	1.75	1.747

### U.S. GULF COAST FOB LNG PRICE ASSESSMENTS (\$/MMBtu)

PERIODS	1-15 DAY 01/16-01/30	16-30 DAY 01/31-02/14	31-45 DAY 02/15-03/01	46-60 DAY 03/02-03/16
Differential	3.013	2.902	2.972	2.745
NG Price	3.521	3.501	3.249	3.249
Assessment	6.534	6.403	6.221	5.994

### AMERICAS BARGE RATES (\$/mt)

LOCATION	LOW	HIGH
Houston	24.90	25.10
New Orleans	25.40	25.60
New York	17.90	18.10
Savannah	17.90	18.10
Los Angeles	18.40	18.60
Seattle	28.90	29.10
Panama	19.95	20.05



Note: Typical Barge Rates for Parcels of 600-1600mt

### HOUSTON BUNKER FUEL BTU INDICATOR

PRODUCT	API	BTUs/bbl	BTUs/mt	MEAN (\$/bbl)	MEAN (\$/mt)	BTUs/\$
GC ULSD	30	5,880,000	42,303,660	75.272	541.547	78,116
0.5% VLSFO	25	5,989,200	41,755,505	75.814	528.560	78,999
HS 380 CST	11.3	6,246,000	39,633,993	56.418	358.000	110,709

\* General Indication of the number of BTUs per US dollar spent for various grades of fuel based on API.

### AMERICAS BUNKERS (\$/mt ex-wharf)

HOUSTON	PRODUCT	BASIS DIFF	LOW	HIGH	MEAN
	MGO	-- --	565.00	570.00	567.500
	0.5% VLSFO*	-37.16	525.56	531.56	528.560
	HS 380 CST	-- --	356.00	360.00	358.000

NEW ORLEANS	PRODUCT	BASIS DIFF	LOW	HIGH	MEAN
	MGO	-- --	615.00	625.00	620.000
	0.5% VLSFO*	-28.58	534.14	540.14	537.140
	HS 380 CST	-- --	401.00	411.00	406.000

NEW YORK	PRODUCT	BASIS DIFF	LOW	HIGH	MEAN
	MGO	-- --	605.00	615.00	610.000
	0.5% VLSFO*	-28.76	533.96	539.96	536.960
	HS 380 CST	-- --	400.00	410.00	405.000

SAVANNAH	PRODUCT	BASIS DIFF	LOW	HIGH	MEAN
	MGO	-- --	615.00	620.00	617.500
	0.5% VLSFO*	-26.61	536.11	542.11	539.110
	HS 380 CST	-- --	415.00	420.00	417.500

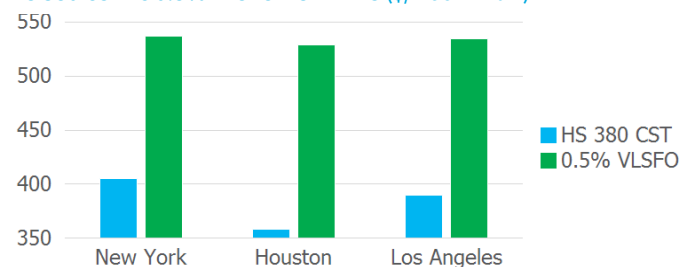
LOS ANGELES	PRODUCT	BASIS DIFF	LOW	HIGH	MEAN
	MGO	-- --	610.00	625.00	617.500
	0.5% VLSFO*	-31.44	531.28	537.28	534.280
	HS 380 CST	-- --	387.00	393.00	390.000

SEATTLE	PRODUCT	BASIS DIFF	LOW	HIGH	MEAN
	MGO	-- --	630.00	640.00	635.000
	0.5% VLSFO*	-30.01	532.71	538.71	535.710
	HS 380 CST	-- --	393.00	403.00	398.000

PANAMA	PRODUCT	BASIS DIFF	LOW	HIGH	MEAN
	MGO	-- --	602.00	612.00	607.000
	0.5% VLSFO*	-33.23	529.49	535.49	532.490
	HS 380 CST	-- --	375.00	385.00	380.000

\* Diff to Front Month NYMEX ULSD Futures Price as Displayed on Page 1 of this Report

### HS 380 CST vs 0.5% VLSFO BUNKERS (\$/mt ex-wharf)



## Values tick up in the Americas

Marine fuels in the U.S. edged higher Tuesday as bulk resupply values moved higher in step with Brent crude. January is noted as a sluggish month for marine fuel sales and suppliers said spot market inquiries are just beginning to pick up. "What you will see in January is a lot of smaller pieces done," said a Gulf Coast supplier. "[Ships] getting a little extra here or there to top off, or, if the prices are good where they are positioned right now, you will see them buy.

US Gulf Coast values were slightly stronger with Houston RMG indicated in the upper \$350 per metric ton ex-wharf and marine gasoil at \$560-570/mtw. RMG was assessed \$2/mt higher to \$356-360/mtw, while MGO was higher by \$5/mt to \$565-570/mtw. The 0.5% sulfur bunker grade (VLSFO) was calculated at \$528.50/mtw, about \$37/mt below the NYMEX front-month ULSD settle.

New Orleans was heard flat to slightly higher for RMG to \$405/mtw and assessed \$401-411/mtw, higher by \$7.50/mt. Marine gasoil was up by \$10/mt to \$615-625/mtw.

On the US East Coast, indications for New York Harbor HSFO were in the \$400-410/mtw range, higher by \$5/mt, while MGO strengthened by \$15/mt and was assessed at \$605-615/mtw. VLSFO was calculated at \$536.96/mtw, about \$28/mt below the Feb NYMEX ULSD settle. Yesterday at differential was \$31.45/mt.

The US West Coast was firmer as 380 CST was indicated at \$390/mtw and MGO was heard in a very wider range of \$610-625/mtw. RMG was assessed \$17/mt higher to \$387-393/mtw. Nothing was heard in Seattle, although prices were assessed notionally higher with HSFO at \$393-403/mtw, higher by \$8/mt and MGO at \$630-640/mtw, up by \$10/mt.

In Panama, RMG was confirmed done at \$380/mtw for a sub-1,000mt stem that included MGO at \$607/mtw. The deal put Panama at stronger for MGO to \$602-612/mtw, higher by \$7/mt. RMG was assessed at \$375-385/mtw, lower by \$14.50/mtw. A supplier in Panama noted that inquiries have been picking up of late.

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Spot residual fuel values today were largely defined by stronger swaps values, with no physical deals reported. OPIS today assessed East Coast 1% sulfur resid at \$57.75-\$57.85/bbl and Gulf Coast 3% sulfur resid at \$56.60-\$56.70/bbl, both up by \$1.50/bbl.

Swaps on the East Coast for 1% sulfur were last seen at January \$58.30/bbl (up \$1.50/bbl), February \$57.15/bbl (up \$1.50/bbl) and March \$56.30/bbl (up \$1.50/bbl). Swaps on the Gulf Coast for 3% sulfur were last seen at January \$55.65/bbl (up \$1.50/bbl), February \$54.40/bbl (up \$1.50/bbl) and March \$53.55/bbl (up \$1.50/bbl).

In the news...

Singapore bunker sales fall for first time in four years

### ASIA-MIDEAST METHODOLOGY

The Asian and Fujairah delivered marine fuel assessments are based primarily on deals, bids, and offers collected from the market from 10:30h to 16:30h Singapore time (360 minutes) on the date of publication. OPIS considers deals, bids and offers on either an outright price or floating price basis for parcels delivering three to 14 days forward. In the absence of sufficient liquidity, prices may also be assessed relative to other locations, feedstocks or products. For assessments of marine fuel oil, its price difference with physical fuel oil 380cst will be taken into consideration. For assessments of marine gasoil, its price difference with gasoil 10ppm sulfur will be taken in to consideration.

### EUROPE METHODOLOGY

For Diesel Marine Fuel A (DMA), and for Very Low Sulfur Fuel Oil (VLSFO), OPIS uses its OPIS450 assessment method to assess an average price for each of the 450 minutes between 9am and 4.30pm in the Antwerp, Rotterdam, Amsterdam (ARA) barge market. Prevailing bid, offer and traded differentials are added to live futures prices. For DMA, the assessment is based on 1,000 to 3,000 metric ton FOB Barges bid, offered or traded on the Trayport trading screen. For VLSFO, OPIS will assess market levels versus live futures to publish its daily assessment, integrating the trading screen information as liquidity develops. In the absence of trade, a differential will be calculated using 88.25 percent of the value of gasoil barges in ARA, and 11.75% of the value of High Sulfur Fuel barges in ARA. The HSFO assessment reflects barges loading bunker fuel with a 3.5% maximum sulfur content.

### AMERICAS METHODOLOGY

OPIS bulk residual fuel oil spot price assessments take into account transactions confirmed throughout the trading day, typically from 9 a.m. to 5:15 p.m., with the exception of the U.S. Atlantic Coast, where hours extend from 8 a.m. to 5:15 p.m. Eastern time. OPIS tracks spot markets on a full-day basis and daily ranges reflect confirmed trades by timing, volume, product and location. OPIS bunker assessments include Intermediate Fuel Oil (IFO) 380 centistokes (CST) (3.5%S), VLSFO (0.5%S) and Marine Gasoil (MGO) (0.1%S) measured in \$/metric ton (ex-tax). OPIS assesses the full day of trading. In the absence of trade, notional market assessments based on historical data and product spreads are used. OPIS assesses bunker trades delivered from 3-7 days in the U.S. East Coast, U.S. Gulf Coast, and Latin America. The U.S. West Coast has a delivery period of 7-10 days of trade agreement. Delivered trades take into account the published barging rates updated regularly by OPIS market editors.

For complete methodology, visit [www.opisnet.com/about/methodology](http://www.opisnet.com/about/methodology)

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Annual bunker sales in Singapore, the world's top bunkering hub, fell for the first time in four years in 2018, mainly due to lower demand for the high sulfur (HS) 380 CST grade.

Singapore sold 49.798 million mt of bunker fuels in 2018, around 2% lower than the previous year, preliminary estimates from the country's Maritime Port Authority showed. Singapore sold 50.636 million mt of marine fuels in 2017, a record high for the country.

Around 35.723 million mt of the HS 380 CST grade was sold in 2018, 6% lower than in 2017. The HS 380 CST grade remained the most popular bunker grade in Singapore, accounting for 71.7% of Singapore's bunker sales in 2018. But this was the lowest percentage since at least 2007.

A worldwide shift towards low sulfur bunker fuels was not the main reason for the fall in marine fuels sales in Singapore, market participants said. The international mandate to use low sulfur bunker fuels, where the sulfur content is to be capped at 0.5%, would only come into force starting Jan 1, 2020. Year-on-year comparisons also showed that bunker fuel sales in Singapore fell for six of the months in 2018 while the other six months registered an increase.

Bunker fuel sales fell especially steeply in August and November compared to a year ago. Singapore sold 3.963 million mt and 3.906 million mt of bunker fuels during these two months respectively, roughly 400,000 mt lower than for the same months in 2017.

Lower arbitrage inflows from west into Singapore and limited availability of on-specification product were the main reasons for the steep fall in bunker sales during these two months. The Singapore ex-wharf bunker premium rose sharply to over \$10/mt in November as a result of the supply tightness before climbing down to less than \$8/mt by the end of December.

Concerns of supply tightness however continued to persist in the market. Singapore sold 4.308 million mt of bunker fuels in December, just 11,200 mt higher than a year ago. The January ex-wharf bunker premium has meanwhile risen to \$8-9/mt on expectations of lower arbitrage inflows during second-half January.

Sales of low sulfur marine gasoil meanwhile rose for the fifth consecutive year to 1.539 million mt in 2018, also a record high.

Demand for low sulfur bunker fuel otherwise remained thin in Singapore. MPA said last year it was working with the industry to ensure Singapore would be ready to supply low sulfur bunker fuel ahead of the Jan 1, 2020 deadline. MPA plans to publish this year a list of suppliers licensed to sell low sulfur bunkers.

There are 51 licensed suppliers in Singapore as of Dec 3.