

# Qatar Airways allowed to reroute some flights through Saudi airspace



Qatar Airways on Thursday said it had started rerouting flights through Saudi Arabian airspace.

“This evening, Qatar Airways began to reroute some flights through Saudi airspace,” Qatar’s national carrier tweeted, adding the first flight to use Saudi airspace was QR1365, which was scheduled to leave Doha for Johannesburg at 8.45pm.

Flight-tracking websites later showed QR1365’s flight path over Saudi Arabia on its way to the South African city.

This was the first scheduled Qatar Airways service to fly over Saudi Arabia since the start of the Gulf crisis in mid-2017.

Earlier this week, the Al-Ula Declaration was signed during the GCC Summit for the restoration

of full relations between Qatar and the four nations – Saudi Arabia, the UAE, Bahrain and Egypt – that had cut ties in 2017. This includes the reopening of borders and airspace.

Meanwhile, aviation analyst Alex Macheras told Gulf Times that “this is the most significant development in more than three and a half years, as ‘NOTAMs’ (notices to flight crew issued by country aviation regulators) were updated by Saudi Arabia on Thursday, removing the airspace ban on Qatari-registered jets”.

“The removal of the ban was effective immediately, meaning just moments later a Qatar Airways A350 bound for South Africa became the first commercial airline flight in over three years to cross into Saudi airspace, reducing flight time and saving fuel,” he said. “The airspace of Saudi Arabia is now open to Qatar without restriction, and we should expect Qatar’s national airline, Qatar Airways, to resume flights to Saudi Arabia very soon.

“For now, flights that have been avoiding Saudi airspace for the duration of the blockade will now overfly the kingdom.”

Qatar Airways pilots will once again be communicating with Saudi’s air traffic controllers, and the airline will enjoy the fuel savings immediately – a win for the environment too, he noted.

“We’re expecting the ‘NOTAMs’ of the United Arab Emirates, Bahrain and Egypt to also be updated in due course, following Saudi Arabia in removing their airspace bans on Qatar,” Macheras added.

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# Tesla market value tops \$700bn for first time



New York: Electric carmaker Tesla closed trading on Wednesday with a market value topping \$700 billion for the first time.

The latest surge means the company is worth more than General Motors, Ford, Toyota, Honda, Fiat Chrysler and Volkswagen combined.

Tesla's share price ended with a gain of 2.8 percent to \$755.98 for a total value of whopping \$717 billion. That came after the stock saw a more than 700 percent ascendance in 2020 – a gain some analysts viewed as inflated.

The auto industry disruptor led by Elon Musk wowed Wall Street yet again over the weekend, reporting annual car deliveries of 499,550, just shy of its 2020 target of half a million, but well above analyst estimates.

The disclosure capped a year that saw Tesla report a series of profitable quarters and join the S&P 500, establishing the company as one of the world's most valuable businesses and elevating Musk to the second-wealthiest person behind Amazon CEO Jeff Bezos.

While industry analysts do not expect another massive surge in value this year, they remain optimistic about the company's sales prospects, even if the cars remain out of reach for many buyers.

The optimism comes as construction continues on new Tesla factories in Texas and Germany, which will join existing plants in California and Shanghai that are ramping up production.

Musk has expressed determination to cut the price for Tesla's electric cars, which currently start at \$37,990 in the US market.

The Tesla chief is developing battery design, material and production innovations that combine to cut the cost per kilowatt hour by 56 percent.

That should enable Tesla to field a \$25,000 model in "three years-ish," Musk said in September, adding, "it is absolutely critical that we make cars that people can actually afford."

And US sales could be helped by President-elect Joe Biden's commitment to green technology to combat climate change.

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## **Exxon Signals Historic Fourth**

# Consecutive Loss on Demand Hit



(Bloomberg) – Exxon Mobil Corp., which is struggling to maintain a \$15 billion-a-year dividend program, indicated it incurred a fourth straight quarterly loss.

Exxon confirmed in a filing Wednesday it will take a writedown of as much as \$20 billion on its upstream assets, a possibility first disclosed at the end of October. It also reported much smaller non-cash impairments related to its refining business.

There were some positives. Higher oil and gas prices had an impact of up to \$1 billion on upstream profits compared with the third quarter. The chemicals segment saw an earnings boost of as much as \$400 million due to improved margins. Exxon's shares were little changed in after-hours trading in New York.

Still, a fourth-quarter loss would confirm Exxon's challenges

in covering both dividends and capital expenditures from operational cash flow, and remains reliant on debt. The last time the Irving, Texas-based company generated enough free cash to cover its payout was the third quarter of 2018, according to data compiled by Bloomberg.

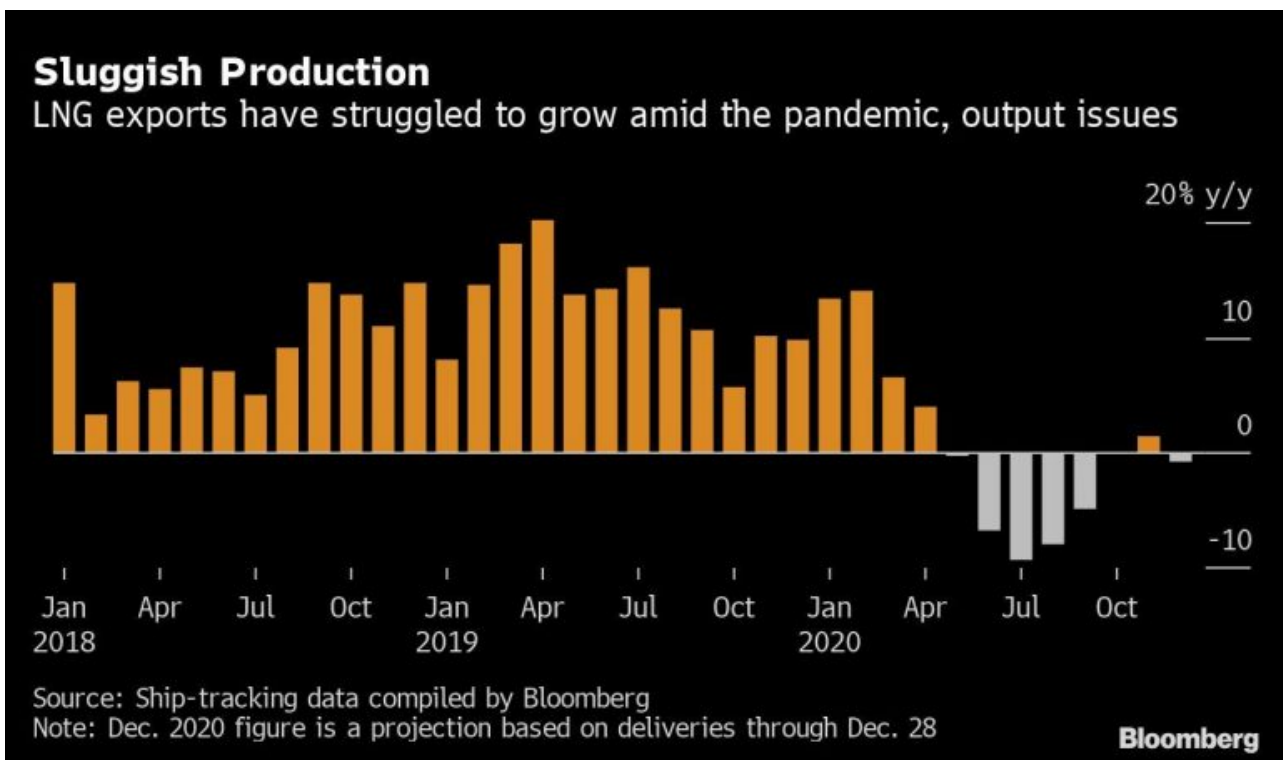
Exxon is set to disclose its full quarterly results on Feb. 2, amid one of the most-punishing periods in the company's 150-year history. Its stock cratered to a 22-year low during 2020 amid a worldwide glut of oil and collapsing demand that gutted cash flow, spurring widespread job cuts. Exxon was kicked out of the Dow Jones Industrial Average, warned it will incur the biggest writedown of its modern history, and was assailed by activist investors seeking better returns and more climate accountability.

Exxon, which has long prided itself on its decades-long record of annual dividend increases, may have opened the door to changing course in late November, according to Cowen & Co. analyst Jason Gabelman. Whereas company executives touted Exxon's "reliable and growing dividend" during an October conference call, a Nov. 30 statement announcing writedowns and spending cuts only mentioned its commitment to a "reliable" payout, Gabelman said in a note to clients.

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**The Cleanest Fossil Fuel Is Set for a Post-Pandemic Rebound Read more at:**

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(Bloomberg) – Liquefied natural gas traders anticipate a swift demand recovery in 2021 after a year in which the coronavirus pandemic prompted dramatic price swings.

Colder weather in key importing nations, outages at major production hubs and congestion along global shipping routes already have combined to push spot prices in Asia to the highest level since 2014. That's a more than sixfold jump from a record low in April, making Asian LNG the best performer among major commodities in 2020.

Demand for the fuel used in heating and power generation is growing faster than for any other fossil fuel as nations look for a cheap, reliable and cleaner alternative to coal. The pandemic derailed that growth for 2020, but China and India are emerging as major sources of demand.

“A lot of countries are looking to import LNG,” Tom Holmberg, a partner at law firm Baker Botts LLP in Washington D.C., said by phone. “I still think we are going to see growth in the LNG market.” Below are the key areas likely to shape the market in 2021:

### Uneven Demand Recovery

Global LNG imports in 2020 were roughly equal to the previous year, according to ship-tracking data compiled by Bloomberg. That was a big disappointment for an industry that has enjoyed 10% annual growth rate since 2016.

However, global gas demand is expected to resume growth next year. LNG demand, which makes up roughly 10% of the total, may rebound even faster, depending on how Pakistan, India and Bangladesh perform, said Manas Satapathy, a managing director in Accenture’s Energy business.

Shipments of the fuel into Asia have mostly recovered since the height of the pandemic, and the region’s LNG demand will rebound sharply next year, according to S&P Global Platts.

On the last day of 2020, spot Asian LNG price – the Japan-Korea Marker benchmark – rallied above \$15 per million British thermal units for the first time since April 2014. “It has been interesting to see how quickly Asian demand seems to have ramped up,” Holmberg said.

The picture in Europe is very different as countries grapple with a new surge of infections and lockdowns that sap energy demand. The continent is headed for a “very neutral recovery” in 2021, according to Satapathy.

Europe mainly relies on storage and pipeline gas shipments,



which may be boosted with flows from a new link from Azerbaijan and the controversial Nord Stream 2 project that's nearing completion.

## Supply Woes

Unplanned maintenance at LNG export facilities from Australia to Qatar to Malaysia has led to a tighter than expected market in the second half of the year. And delays in navigating the Panama Canal curbed supplies to Asia. If these disruptions persist well into the year, then prices could remain elevated well above current levels.

The Gas Exporting Countries Forum, which represents 60% of global LNG exports, expects supply to climb by 6% to 7% next year, up from 2% to 2.5% in 2020. LNG trade was much more resilient to this year's challenges than imports in the fuel's gaseous form, the group said in its short-term outlook.

The market will likely remain oversupplied next year, according to Vitol SA and Trafigura Group Ltd., two of the biggest trading houses active in LNG. Beyond that they expect the market to tighten.

## More Cancellations?

Traders will be watching to see if buyers of U.S. LNG scrap any cargoes next year. About 200 cargoes were canceled in the summer after the pandemic hit spot prices in Europe and Asia. While there's unlikely to be a repeat of that in 2021, traders do expect some cancellations to help balance the market.

American gas exports are rising to fresh records every month as new facilities come online. But any dip in demand could force suppliers to shut-in cargoes. The nation has become a swing supplier because its contracts allow for scrapping deliveries, which enables exports to quickly respond to volatile markets.

China-U.S. Relations Trade relations between the U.S. and

China will be a key focus. China is the fastest-growing LNG importer, and the U.S. is ramping up exports. There's few long-term supply deals between the two nations even though LNG was a focus of President Donald Trump.

Joe Biden takes over as president on Jan. 20. A number of proposed U.S. LNG projects are hoping for more normal relations to help them sign deals with Chinese buyers.

"This certainly affects the LNG markets, particularly the LNG coming from the U.S.," Holmberg said. And with Chinese economy roaring back and offices open, Jack Fusco, chief executive officer of Cheniere Energy Inc, anticipates that "deal making environment looks good for 2021."

Green Ambition Environmentalists are increasingly looking at natural gas as a major polluter. After years of focusing on coal and oil, they're turning their attention to how to zero out emissions from all fossil fuels. That shift has suppliers, buyers and shippers thinking green initiatives to clean up activities linked to methane and greenhouse gas emissions.

Half of the carbon footprint in the life cycle of an LNG cargo comes from upstream, Fusco said. The LNG producer is pushing for more transparency on carbon emissions for the fuel.

"Our customers are going to want to be sure that they can validate and audit what we're telling them our carbon signature is," he said.

The world's first supply contract that required a declaration of emissions was signed this year while so-called carbon-neutral cargoes started flowing to China and Japan as nations outline ambitious targets to effectively zero out emissions.

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# Eskom Bailout Emerging as Equity Swap by Biggest Bondholder



South Africa's biggest pot of available cash – 1.91 trillion rand (\$128 billion) of civil-servant pensions and unemployment funds managed by the Public Investment Corp. – is emerging as the key to rescuing the debt-stricken national power monopoly.

The money manager has approached its parent agency, the National Treasury, with a proposal to ease the 464 billion-rand load of obligations crushing Eskom Holdings SOC Ltd., signaling officials are gearing up for the complex financial and political operation to convert about 95 billion rand of Eskom debt held by the PIC into equity.

“There's still a need to undertake a due diligence to confirm the viability of this proposal,” the Treasury said in a Dec. 11 response to questions from Bloomberg, its first statement

connecting the PIC to an Eskom bailout. "It is important that the PIC be allowed space to follow its internal governance processes in line with its standard investment evaluation process to mitigate against any possible breach of governance or what could be perceived as political interference."

While international investors are cheering efforts to contrive a durable fix for Eskom, the idea of tapping the fund is already drawing warnings over the potential fallout. The swap, which could put Eskom into technical default, would pit the government against its own employees, set a precedent that could see other flailing state-owned companies knocking on the PIC's door and rattle a private sector concerned that its money could be next.

Speculation of a PIC role has intensified in recent weeks since President Cyril Ramaphosa told Bloomberg that "innovative ideas" were being discussed, and Finance Minister Tito Mboweni said the fund was willing to contribute to a solution for Eskom. Labor, business and the government last week agreed to work jointly to reduce the utility's debt in the so-called Eskom Social Compact.

"The sustainability of Eskom's debt and the risks it poses to state finances are now arousing political interests who are increasingly interested in grasping a solution," said Peter Attard Montalto, head of capital markets research at Intellidex. "Eskom's debt needs to be solved."

The scope of the task has increased since Goldman Sachs Group Inc. described the utility in 2017 as the biggest threat to South Africa's economy, which is just exiting its longest recession in 28 years. Eskom's inability to provide reliable power since 2008, when outages began, has crimped output and disrupted everything from aluminum smelters to household kitchens.

The deterioration was worsened by years of looting under Ramaphosa's predecessor, Jacob Zuma, leading to the 2019 bailout that totaled 128 billion rand over three years. But

that's merely keeping the wolf from the door and the search for a long-term solution is under way for the too-big-to-fail operation.

## **'Materially Cheap'**

Plans to rescue Eskom, which has said it can't afford to service more than 200 billion rand of debt, have also included dipping into the surpluses of state-run unemployment and compensation funds and converting some of its mostly government-guaranteed debt into sovereign bonds.

Credit analysts have been talking up Eskom as a 2021 top pick, citing the government's efforts, says Lutz Roehmeyer, the chief investment officer at Capitulum Asset Management GmbH in Berlin, who holds Eskom dollar bonds and isn't adding any more. "Investors are very bullish on the name and expect the sovereign to solve the problem," he said.

JPMorgan Chase & Co. this week called Eskom bonds "materially cheap" compared with sovereign debt.

## **Multiple Bailouts**

South Africa's Eskom is surviving on government support.

"As long as debt declines and becomes more sustainable, that's really the number one priority," said Guido Chamorro, co-head of emerging-market hard-currency debt at Pictet Asset Management in London, which manages \$10 billion in developing-nation assets, including Eskom 2028 notes. "There are 101 different ways to do it. I mean, the government as the sole shareholder could even assume the debt. Or use its lower funding costs to borrow and then transfer the funds to Eskom."

The PIC is recovering from a government inquiry last year into how political meddling influenced decision-making. The probe led to the departure of several senior executives following disclosures that included bailing out one of the country's

biggest retailers ahead of a national election against the advice of its investment professionals.

While the Congress of South African Trade Unions, a key ally of the ruling African National Congress, has backed using PIC funds to help Eskom, other labor groups, including the 235,000-member Public Servants Association, and business leaders have opposed it.

Eskom's own employee pension fund has signaled resistance to the idea. It doesn't want to change the "risk-return characteristics" of its 2 billion rand investment in the company's debt or add to the holding, said Chief Investment Officer Ndabezinhle Mkhize.

## **Pitfalls**

All of the options being considered have their pitfalls. A debt-to-equity swap may have to be offered to all creditors and could be classified by ratings firms as a default. Converting Eskom debt into sovereign bonds could flood the market and unnerve holders of South Africa's 2.62 trillion rand of junk-rated government bonds.

"We could lower the rating by one or more notches if the utility undertakes a debt restructuring, which, in our view, could be tantamount to a default," Standard & Poors' said in a Nov. 25 statement.

Eskom CEO Andre de Ruyter has been credited with improving operations since taking over January but has said the debt question is in the hands of the government. He has spoken of using green finance to help reduce coal use and cut its debt. He didn't give specifics.

Ultimately, unpalatable as it might be, the government may find it just has to meet the utility's obligations by paying off its debt at it falls due.

“Everybody knows Eskom needs to do something about its debt, no one knows what that looks like,” said Olga Constantatos, head of credit at Futuregrowth Asset Management, which has 194 billion rand under management, including Eskom debt. “It’s in a utility death spiral as well as a debt spiral.”

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## OPEC+ Treads a Narrow Path as Demand Outlook Weakens Again



Producers need to maintain supply restraint amid a sluggish recovery if they’re to shrink stockpiles

The light at the end of the tunnel isn’t getting any closer for OPEC and allied oil-producing countries, as forecasts of the world’s need for their supplies next year are cut again.

The world's three major oil agencies – the International Energy Agency, the U.S. Energy Information Administration and the Organization of Petroleum Exporting Countries – all reduced the outlook for global oil demand in 2021 in their latest monthly reports. With two of them also increasing their forecasts for non-OPEC crude production next year, the gap that needs to be filled with barrels from the OPEC countries continues to get smaller.

The most difficult period for the producer group will be the first half of the year, before vaccinations against the Covid-19 pandemic are sufficiently widespread to allow governments to lift restrictions on movement and gatherings that have had such a dramatic impact on people's lives and on demand for oil in 2020.

In a normal year, the first quarter is typically the weakest for oil demand, and 2021 will still be far from normal. The usual early-year weakness will be compounded by the fact that, even in the affluent countries that have secured large quantities of the most advanced vaccines, the roll-out of inoculations will take time. Working-age people outside the key healthcare sector could be among the last to benefit, which may continue to dampen economic activity and energy demand.

All three forecasters see global oil demand in the first quarter of next year remaining between 4.5% and 5% below the level seen during the same period in 2019. Any quarter-on-quarter increase from the current period will be small, with the IEA seeing no growth at all.

In that context, the decision by the OPEC+ group of countries to limit the easing of their output cuts to just 500,000 barrels a day in January, about one-quarter of the initially planned increase, makes sense.

Among the three forecasters, only the EIA saw stockpiles



continuing to fall in the first half of next year if the OPEC+ countries had gone ahead with the 1.9 million barrel a day output increase they had originally planned for January (see chart below).

Limiting the output increase to 500,000 barrels a day would suffice to drive the supply/demand balance into deficit, with stockpiles falling at a rate of between 800,000 barrels a day and 2 million barrels a day in 1Q21, according to the three outlooks. Stock draws in the second quarter would be between 1 million barrels and 2.4 million barrels a day and they would increase further in the second half of the year (see chart below).

## **The Old Plan**

How global oil stockpiles would change if OPEC+ eased output as originally planned

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## **The New Plan**

How global oil stockpiles would change if OPEC+ doesn't ease production limits any further after the increase agreed for January

The producer group has retained the ability to make further monthly adjustments to supply targets, either upward or downward, but the latest forecasts suggest that they may want to hold off on any further easing, unless oil demand recovers faster than expected.

## Slow Drain

A weaker demand outlook means OPEC sees stockpiles falling more slowly than it did in October, despite a smaller easing of output cuts

Despite keeping a tighter rein on oil supply, the deteriorating global oil demand outlook means that OPEC's own analysts now expect stockpiles to be higher throughout 2021 than they saw them just two months ago (see chart above). By the end of next year, even with no further easing of output cuts beyond the 500,000 barrels a day agreed for January, the producer group expects global oil stockpiles to be some 670 million barrels higher than they were at the end of 2019.

The goal of bringing inventories back down to more normal levels seems ever more elusive. Since July, when OPEC first began publishing its quarterly forecast for next year, its estimate of global demand over the five quarters from 4Q 2020 to 4Q 2021 has come down by an average 2 million barrels a day, while its assessment of non-OPEC output over the same period has risen by 1 million barrels a day. That combination has cut the anticipated call-on-OPEC crude by an average 3 million barrels a day. OPEC and its allies are going to have to maintain discipline amid supply restraint for longer than they had hoped.

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## U.S. petroleum stocks nearing normal after wild 2020



Total stocks of crude and products, excluding oil stored in the strategic petroleum reserve, ended the year 6% above the seasonal average for the previous five years, down from a surplus of 14% at the start of July.

Excess petroleum inventories were still in the 74th percentile for all weeks since the start of 1995, on the high side, but down from a surplus in 92nd percentile at the middle of the year.

Total inventories, including the strategic petroleum reserve, have declined in 21 out of the last 26 weeks, by a total of 136 million barrels.

Gasoline and distillate stocks have shown the fastest return to normal while commercial crude stockpiles have faced a more sluggish adjustment.

By the end of December, gasoline inventories had been reduced to almost exactly in line with the five-year average, down from a surplus to the five-year average of nearly 13% in April.

Distillate stocks, which include road diesel and heating oil, had been reduced to a surplus of 7%, down from 29% at mid-year, according to weekly statistics from the U.S. Energy Information Administration.

Commercial crude stocks were still 10% above average, down from 19% in the middle of the year, indicating slower progress ("Weekly petroleum status report", EIA, Jan. 6).

## **NEARING BALANCE**

Oil producers and refiners have adjusted at an exceptionally fast pace following the record shock to oil consumption caused by the first wave of the coronavirus and the associated lockdowns.

On the crude side, excess inventories have been cut by lower output from domestic shale producers and a fall in imports especially from Saudi Arabia.

On the products side, stocks have been cut by slower crude processing and a decision to focus on gasoline at the expense of middle distillates such as diesel and jet fuel.

In final week of December, U.S. refineries processed 14% less crude than average for the previous five years, even though domestic consumption was down by just 7%.

Processing restrictions are likely to persist in for the next 2-3 months which should ensure stocks of products end the first quarter below average.

Lower product stocks will support higher refining margins and a sharp increase in crude processing during the second quarter.

Based on futures prices, refining margins for gasoline and distillate delivered at the end of the second quarter have already risen by 40% and 60% from their post-crisis lows.

The principal risk to rebalancing comes from a resurgence in coronavirus and the possibility of new lockdowns to contain it, which could force fresh cuts in margins and processing.

## **DISTILLATE REBOUND**

Consumption of petroleum products has recovered strongly, ending the year 7% below the five-year average up from a deficit over 30% at one point in April.

The strongest rebound has come in distillate, where consumption ended the year running above the five-year average.

Distillate use is closely linked to the business cycle, especially manufacturing and freight transportation, so it has bounced back in line with the surge in manufacturing.

The resurgence in diesel use is consistent with the widespread reactivation of manufacturing reported in the Institute for Supply Management's monthly surveys and the Federal Reserve's industrial production index.

Gasoline consumption has also recovered, ending the year 10% below the five-year average, but improvement has stalled and even reversed since the end of third quarter, when consumption was down 5%.

Gasoline consumption has been hit by the new wave of coronavirus infections and reimposition of travel restrictions and work from home orders.

The worst-affected segment remains jet fuel, however, where consumption ended the year 35% below the five-year average as a result of international travel restrictions and nervousness about flying during the epidemic.

But the reduction in excess distillate inventories and the strength of diesel demand is encouraging refiners to end their

focus on gasoline production and target a more normal distribution of product outputs.

U.S. refiners boosted their combined production of distillate and jet to 74% of their output of gasoline in the final week of the year, up from a recent low of just 55% in mid-October.

If manufacturing and freight transport remain strong, while private motoring is hit by renewed coronavirus controls, refiners will shift to prioritise distillate consumption by the end of the first quarter.

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## **Nordic States Set Electric-Planes Pace After Green-Cars Push**



The Nordic region's pace-setting push into green transport is set to extend from cars to the air-travel market.

Iceland this month signaled plans to move toward carbon-free domestic flights by the end of the decade, while Sweden's Heart Aerospace aims to deliver an electric plane specifically designed to ply routes linking remote Scandinavian settlements within six years.

Coordinating the region's initiatives is the Nordic Network for Electric Aviation, founded last year and tying together airport authorities and five airlines including Finnair Oyj, Icelandair Group and SAS AB, alongside Heart and other technology innovators. The emphasis on cleaner flights follows Norway's strides toward banishing the combustion engine, with more than half the cars sold there now electric.

"We have an opportunity here to show the world what's possible, and also to give the industries in our countries the opportunity to be front-runners and build this market," said Maria Fiskerud, the NEA's project manager and former adviser to the Swedish government on aviation biofuels.

The group has received 12 million kronor (\$1.4 million) in combined funding from its members and the governments of Sweden, Denmark, Norway, Finland, Iceland and Greenland.

Iceland's plan to embrace electric planes is being led by its parliament's environment and transport committee, which has asked the government to establish a group of experts to lay the groundwork for environmentally friendly domestic services by 2030.

While Norway's success in encouraging electric autos has been driven by generous tax incentives and concern about the economy's reliance on oil production, the region's focus on greener aviation is more directly rooted in the unique nature of a market characterized by flights between sparsely populated areas with limited surface transport links.

Iceland's compact size makes it particularly well-suited to first-generation electric aircraft, which will be limited in passenger capacity by the weight of batteries needed to get

even a small number of people off the ground.

Fiskerud said Icelandic domestic trips offer the perfect testbed, since "routes are all within an hour's reach." The greater size of Sweden, for example, might be too much of a stretch for early models so that a pledge to render its domestic market fossil-free by 2030 is likely to require a mix of electric planes, sustainable jet fuel and possibly hybrid technology, she said.

British Airways said Saturday that it's working with startup ZeroAvia, which has demonstrated a six-seater plane powered by a hydrogen fuel cell, as part of a push to reach net-zero emissions. ZeroAvia aims to extend its technology to longer trips and fly for more than 1,000 miles with a 100-seat-plus aircraft by 2030.

Icelandair Chief Operating Officer Jens Thordarson said he's enthusiastic about the application of electric technology, especially in light of the island's abundant geothermal and hydro-power green-energy resources. The carrier's domestic arm Air Iceland Connect currently uses three 37-seat Q200 turboprops and two 70 seat Q400s from Bombardier Inc., now De Havilland Canada.

"We're still a long way away from being able to have electric long-distance flights," he said in an interview. "However many projects are underway for developing aircraft for shorter distances. Being able to utilize electric planes for domestic flights would change the business."

Thordarson said a plane carrying about 20 people using locally sourced electricity could even be cheaper to operate than kerosene-powered models, opening up the prospect of increased frequencies with fewer passengers than existing services in order to keep down takeoff weights.

Heart, based in Gothenburg, plans to win certification for its ES-19 regional plane by 2026, according to the company's



website.

The model, named for its 19-seat capacity, will have a range of about 400 kilometers (250 miles) and feature a conventional wing and propellers. It will be able to operate from a runway as short as 800 meters (2,600-foot).

Thordarson said it may take two or three years beyond certification to establish the reliability of electric planes for commercial services and for them to enter mass production. Airport infrastructure will also need to be adapted to provide adequate access to charging, and the reduced performance of batteries in cold climates must also be addressed, he said.

Government support may be required, paralleling that provided for eco-friendly vehicles. Norway, which aims to turn domestic flights all-electric by 2040, is looking at making subsidies for individual routes conditional on switching away from fossil fuels, or offering tax incentives for electric services.

The Nordic region's combination of ready access to renewable electricity, high relative wealth and geography favoring smaller planes will provide a litmus test for the viability of carbon-free flying more generally, Fiskerud said.

"This is a good part of the world to start working with electric aviation," she said. "If we can't do this here then it is difficult to see where it can be done."

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## **QP strives to bolster global**

# energy lead of Qatar: Al-Kaabi



QNA/Doha

HE the Minister of State for Energy Affairs as well as president and CEO of Qatar Petroleum, Saad bin Sherida al-Kaabi, has said Qatar National Day unites Qataris and all those who love Qatar in expressing loyalty to the beloved homeland, and in renewing allegiance to the wise leadership of His Highness the Amir Sheikh Tamim bin Hamad al-Thani, who is leading the country to greater pride and development built on the foundations laid by the late founder Sheikh Jassim bin Mohammed bin Thani.

In remarks to Qatar News Agency, al-Kaabi said that National Day is an occasion of glory and pride for the State of Qatar, which reinforces the belonging to the country.

He added such feelings are reflected every day in the manifestations of solidarity, unity and cohesion that unites all spectrums of the Qatari society, whether during the unjust blockade, or in the face of the global pandemic.

Al-Kaabi noted that just as the founder united the people of the country and strengthened their cohesion and harmony, the wise leadership has deepened the connection to the great land

and created a generation with strong sense of belonging to the nation.

On QP's achievements this year, al-Kaabi said QP has strengthened its strategy and institutional values on the road to achieving its vision to become one of the best national oil and gas companies in the world by strengthening the position of Qatar on the global energy map and expanding its international presence in the field of exploration.

He said QP received the "New Venturer of the Year Award" as part of the Wood Mackenzie Exploration Awards 2020, in recognition of its outstanding and growing exploration presence across the globe.

QP is the first national oil company to win such award after it was won by Total in 2019 and ExxonMobil in 2018, he said, noting that the company signed a number of long-term agreements to buy and sell LNG with brotherly and friendly countries.

Al-Kaabi pointed out that QP signed agreements with three Korean companies to reserve LNG ship construction capacity in South Korea to support the ongoing expansion projects in the LNG production.

By signing these agreements, QP secured approximately 60% of the global LNG shipbuilding capacity through 2027 to cater to its future LNG fleet requirements.

QP has announced the start of operations of QP Trading as its dedicated LNG trading arm.

Wholly owned by QP and based in Doha, QP Trading is mandated to build a globally diversified portfolio of third party and equity LNG.

To enhance its national human resources, al-Kaabi said QP has spared no effort in providing education, training and development opportunities for the widest possible segment of the promising young men and women of the country.

Al-Kaabi affirmed that QP has worked on the immediate response to manage the outbreak of Covid-19 and limit its effects on QP and the rest of the energy sector.

A crisis management team and a number of work groups and project teams were formed to lead response efforts and implement key measures to protect employees while minimising risks to the continuity of QP's operations.

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# Blue hydrogen, carbon capture technologies to play key role in transition to sustainable energy future, says GECF



The Gas Exporting Countries Forum (GECF) has joined a growing global consensus that blue hydrogen production from natural gas, coupled with carbon capture or CCUS technologies will play a “significant” role in the world’s transition to a sustainable energy future.

This was highlighted by GECF secretary-general Yury Sentyurin at a special virtual event ‘Blue Hydrogen Strategy’, organised by it. The event made special note of the potential for enriched natural gas, which is a blend of natural gas with hydrogen.

The hydrogen economy is the use of hydrogen as a fuel, but is subject to intensive comparison, particularly between “various colours” of hydrogen. The most popular green hydrogen is obtained from renewables but is sub-scale, while the blue is produced from natural gas after pairing with carbon capture.

“Looking at the alternative of blue hydrogen, it builds on natural gas and we already have this technology in place and the network to carry this volume is in place, for example through pipelines for natural gas,” Steinar Eikaas, Equinor’s vice president for Low Carbon Solutions.

Currently, the cost of producing blue hydrogen is 50-100% above natural gas production; however the resultant fuel is completely carbon dioxide free. The cost of green hydrogen, meanwhile, is 2-5 times above blue hydrogen.

Energy experts believe that hydrogen is the next frontier as it can fill the same purpose as, for example, natural gas, and decarbonise many of the same sectors fuelled traditionally by hydrocarbons.

“When it comes to the type of hydrogen, blue hydrogen has advantages simply because the infrastructure already exists and the oil and gas industry has the investment muscle,” he said.

Giving a European example, he said the European Union’s new hydrogen strategy, announced this July, has set very aggressive target of 40 gigawatts of green hydrogen by 2030 but left another 40 gigawatts for imports, thereby leaving the opportunity for blue hydrogen to fill in the gap. According to the latest available figures from the GECF Global Gas Outlook 2050 (2020 edition), natural gas is projected to remain the fastest growing fossil fuel with a share of 28% in the global energy mix by 2050 against the current 23%. Along the way, it will play a vital role in decarbonisation options, such as the blue hydrogen.

Referring to the Global Gas Outlook 2050, the GECF Head of Energy Economics and Forecasting Department Sokolov, said the forum developed a dedicated scenario called the “Hydrogen Scenario”, the results of which suggest blue and green

hydrogen to dominate the future of hydrogen production.

“According to the results of the scenario, almost half of the produced hydrogen will be sourced from natural gas by 2050, in the form of blue hydrogen. It is also forecasted that more than 10% of the total natural gas production in 2050 will be consumed by hydrogen,” he added.