VIEWPOINT

How Green Will Recovery Be?

It’s going to be a long, hard slog to get the world back on its economic feet once the coronavirus pandemic is brought under control. But however Herculean the task, an even bigger fight looms: Tackling climate change. Greenhouse gas emissions will drop as lockdowns and social distancing cut travel and shutter industry, but as International Energy Agency head Fatih Birol said from lockdown in Paris last week: “This is good news, but for the wrong reasons. [Emissions] are declining because of the economic meltdown, not because of the right energy policies.”

Before the first Covid–19 cases were reported in the Chinese city of Wuhan in December, the world was grappling with peacetime energy policies that posited global temperature increases of some 2.7°C by 2100, way above the preferred Paris target of 1.5°C. Now the planet is in a virus war that is ravaging economies and leaving global markets in free fall, and will require trillions of dollars in economic stimulus packages to smooth the path to recovery.

Although wind and solar are cheaper than newbuild coal and only slightly more expensive than modern gas–fired units across much of the globe, there are concerns that old habits may die hard and that the recovery packages will give fossil fuels preferential treatment (WGI Feb.12’20). Many fear that China, the world’s biggest emitter, will ease restrictions on coal–fired generation to achieve Beijing’s deep desire to “resume work, resume production.” This would come at the expense of the environment and air pollution in cities, which for the first time in years have relatively clear skies, as workers return to factories and industrial plants (WGI Mar.25’20). China could build hundreds of gigawatts of coal capacity to power growth under stimulus measures for construction and heavy industry, according to think tank Carbon Tracker (WGI Jan.15’20).

The US has taken a somewhat agnostic approach to energy in stimulating its shellshocked economy. Wind and solar were dealt a blow after calls to extend production tax credits were ignored in the near $2 trillion stimulus package passed by the Senate last week. Understandably, renewables lobby groups say they are “disappointed,” adding that billions of dollars of projects could be at risk. The oil sector was also disappointed that industry–supportive measures to buy $3 billion worth of oil for the country’s Strategic Petroleum Reserve (SPR) at relatively low prices were left out. The Democratic leadership and environmentalists hailed a win in defeating the SPR language, which they viewed as a secret bailout for the oil industry. The bill includes $500 billion in economic relief via loans and other assistance for larger companies, states and cities, which is expected to include airlines.

In the EU, government leaders have called on policymakers in Brussels to draft a comprehensive recovery plan that leans heavily on green, low–carbon measures (WGI Mar.18’20). A communiqué states that the EU executive should “start to prepare the measures necessary to get back to a normal functioning of our societies and economies and to sustainable growth, integrating inter alia the green transition and the digital transformation.” But while the world is collectively fighting Covid–19, the same togetherness isn’t evident in the fight against climate change: Poland and the Czech Republic both want to bench green policies while they revive their economies.
DEMAND

India Lockdown Adds to LNG Sellers’ Woes

India’s LNG buyers have asked suppliers from Qatar to Australia to defer shipments as demand for the super-cooled fuel plunged after Prime Minister Narendra Modi announced a three-week lockdown on Mar. 24, designed to halt the spread of coronavirus (WGI Mar.25’20). The move by the world’s fourth largest LNG importer sent shock waves through LNG markets, where India had emerged as a bright spot in February after lapping up cheap spot cargoes, boosting LNG imports 68% to 199 million cubic meters per day (4.2 billion cubic feet per day, or about 2.56 million tons of LNG) that month (WGI Feb.5’20). With global demand weak from Europe to Asia, suppliers are struggling to find alternative buyers, which could give Indian off-takers the rare opportunity to push for renegotiation of oil-indexed term deals.

Modi took a monumental gamble when he confined 1.3 billion people to their homes until Apr. 14 at the earliest. So far, the country has reported over 1,200 Covid-19 cases and more than 30 deaths, and experts fear a dramatic increase given the country’s dense population and creaky health infrastructure. After the lockdown was announced, the federal shipping ministry told port operators they could use the virus as the reason to declare force majeure. LNG buyers Petronet LNG, GAIL India and Gujarat State Petroleum Corp. (GSPC) all issued force majeure notices to suppliers, creating turmoil in LNG markets. Petronet, the country’s biggest LNG buyer, issued a notice to QatarGas, with which it has a long-term deal for 7.5 million tons per year, and also wrote to Exxon Mobil invoking force majeure, Finance Director Vinod Kumar Mishra tells Energy Intelligence. Its term deal with Exxon is for 1.4 million tons/yr from QatarGas’ Gorgon. Petronet gets around 10 cargoes from QatarGas and two from Australia every month. Ian Nathan with Energy Intelligence’s Research and Advisory unit says the way in which Qatar “handles cargoes under this force majeure could provide insight into how it will manage volumes in the future — particularly given its large capacity plans.”

The Indian buyers are copying China National Offshore Oil Corp., which declared force majeure on some supply in February as lockdowns slashed industrial and commercial demand (WGI Mar.11’20). Total openly rejected one force majeure declaration, while other term suppliers may have followed suit more discreetly. The suppliers reportedly believed the situation didn’t warrant the invocation of force majeure as Chinese buyers were seen trying to replace term imports with cheaper spot cargoes. Petronet says its Qatari contract includes force majeure provisions and the situation warrants invocation of the clause. The contract with Exxon is less clear. Gail and GSPC declared force majeure on some immediately shipments. Reports suggest GSPC canceled a tender to import 11 cargoes for delivery over the next year.

India’s gas consumption rose 25% year on year in February to 197 MMcm (7 Bcf/d). The lockdown has slashed demand by about 30% as transport halted and factories closed. Gas demand was already under pressure as competing fuels became more attractive after oil prices sank below $30 per barrel. Given the logistical challenges at ports, invoking force majeure was not entirely surprising, Citigroup says, as they could have made it harder for companies to meet contractual commitments, leading to penalties.

The government will likely start relaxing the restrictions in mid-April before lifting them completely. Gas consumption, which averaged 151 MMcm/d in 2019, will contract 18%–20% after the lockdown, Wood Mackenzie senior analyst Vidur Singhal says, and will be harder hit the longer it lasts. Poorna Rajendran, consultant at Singapore-based FGE, says LNG consumption is expected to fall substantially as imports are mainly consumed by the industrial and commercial sectors. If the lockdown is lifted in the second half of April, LNG demand could drop by about 1 million tons, or as much as 2 million tons if ports cannot receive cargoes.

Petronet has so far deferred one cargo for March and one for April, but is undecided beyond that. It isn’t clear which cargoes Gail has deferred. Unlike Petronet, Gail, which has two term deals for a total of 5.8 million tons/yr of US LNG, has destination flexibility and isn’t in a position to invoke force majeure, a person familiar with the contracts says. Gail also has a contract with Russia’s Gazprom for less than 1.5 million tons/yr.

India’s LNG terminal operators are struggling to keep going amid staff shortages and shrinking demand. Petronet’s 17.5 million ton/yr west coast Dahej terminal, which normally operates above nameplate capacity, is now running at 70%. Royal Dutch Shell, which operates the 5 million ton/yr Hazira terminal in the west, said this week it continues to operate the plant with essential staff. India has five import terminals with a combined capacity of 37.5 million tons/yr.

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NEW PROJECTS

Qatar Goes Slow on Expansion

Delays getting Qatar’s mega-expansion off the ground illustrate just how hard life has become for even the world’s biggest and lowest-cost LNG producer. The oil price crash had been expected to hand the Mideast LNG giant a great opportunity to push ahead with the expansion as its rivals struggled, given its cost advantages and burning desire to grab as much of the increasingly competitive market as it can. But Qatar’s decision to delay project awards underscores the fact that it is not immune to the sudden changes in market dynamics that are wreaking havoc across the industry.

State Qatar Petroleum (QP) had at one point been expected to name the winner of the main construction contract for the expansion in the first quarter of 2020, around the same time it chose international investment partners, with the new capacity brought on line gradually starting in late 2024. But the scale and complexity of the project had already pushed back the schedule to the second quarter, and a source says uncertainties over price direction mean the construction contract may not now be awarded until the first quarter of 2021. Coronavirus-fueled demand concerns may also inform thinking. Another source based in Doha says unconfirmed talk in Qatar is that QP will likely hold off on making any selection of international investors for at least six months until a clearer demand picture emerges.

Qatar announced in 2017 it would build three new megatrain, each with capacity of 7.8 million tons per year, and suggested all would be on line from 2022–24 (WGI Apr. 25’18). It threw a fourth train into the mix in 2018. Three groups were shortlisted for the four units last April — Chiyoda and TechnipFMC; JGC Corp. and Hyundai; and Saipem, McDermott and CTCl. Chiyoda is already carrying out front-end engineering and design. Technical bids have been submitted and commercial bids are expected this May, two industry sources say. “I think what’s going to happen is they will start talking to whoever is the front-runner to give them an early start to make sure that they can get moving,” one says.

The engineering, procurement and construction (EPC) contract will still be for four trains, even though QP said late last year it would add two more trains to hoist capacity from 77 million tons/yr to 126 million tons/yr by the late 2020s (WGI Nov. 27’19). This does not necessarily mean it has canceled or delayed these last two units, but there are concerns over EPC contractors’ workload. The LNG contractor pool has shrunk by half over the past decade to about six major players, and project developers are forcing contractors to shoulder more risks (WGI Mar. 4’20). McDermott International’s decision to file for Chapter 11 bankruptcy protection in the US in January sparked concerns about other contractors’ vulnerability (WGI Feb. 26’20). Lower gas demand growth is another concern, particularly in China, where soaraway growth has tumbled back to earth.

The new trains are expected to be more expensive than the 14 original trains. One contractor source puts costs at $15 billion–$20 billion each, although a second source believes that figure includes associated costs. QP has been asking contractors to cut costs, but lower prices and demand make the Qatari project extremely difficult to price, an executive says, adding that he would not be surprised by further delays to allow QP to get the full benefit of the market downturn. Among other Mideast producers, Abu Dhabi National Oil Co. is reportedly seeking cuts from contractors of around 30%, while Saudi Arabia wants reductions of 25%.

For international partners, the expansion would have been the LNG industry’s single-biggest investment opportunity this year. QP has short-listed six lead partners — Exxon Mobil, Total, Royal Dutch Shell, ConocoPhillips, Chevron and Eni — which could potentially help it market new and existing output. As with the EPC contractor, no front-runner has emerged, sources say. Winning international oil firms will likely bid for a 30% stake in the new capacity as a whole, rather than a particular train. But like Qatar, the majors have been hurt by crashing oil prices and the coronavirus pandemic and may be equally keen to hold off on new investment.

Rafiq Latta, Nicosia, and Clara Tan, Singapore

CORPORATE

Virus Eats Away at Russian Gas Exports

As Russia embarks on what President Vladimir Putin calls “non-working week” to try to stem the spread of coronavirus, top gas exporters Gazprom and Novatek are both playing down the impact on businesses already squeezed by global oversupply and low prices. Russian analysts reckon the pandemic will be less destructive to global gas demand than oil, but gas consumption in Europe, Russia’s main gas export market, is already falling as economies grind to a halt (WGI Mar. 18’20).

The virus is also spreading in Russia. The government has yet to announce a state of emergency, but Moscow was put into citywide quarantine on Mar. 30, while restaurants, cinemas and resorts across the country have been ordered to shut. As of Mar. 31, 2,337 cases and 17 deaths had been reported across Russia, of which 1,613 cases and 11 deaths were in the capital. It’s not clear how the situation will develop, but the consensus is that the peak is weeks away. Measures taken to date are expected to cost the economy hundreds of billions of rubles, or 1%–2% of GDP. This is on top of the losses to the Russian budget from the crash in oil prices that followed the collapse of the Opec-plus alliance in early March. More important, the measures will cause major damage to small and medium-size businesses that threatens to slow economic growth significantly.
In the short term, the virus should have little impact on Gazprom or Novatek, local analysts suggest. Domestic consumption is still being supported by heating demand. Full-year demand could drop by 5 billion–7 billion cubic meters, but that’s minor compared with overall consumption of 480 Bcm, according to Sergei Kapitonov of the Skolkovo Energy Center in Moscow, and could be offset by cold weather. But the extent will hinge on the scale of the lockdown and whether the virus follows the Asian or Western model, he says.

Abroad, the story is different. Greater competition and record-low prices were already hurting the two exporters’ revenues. The head of Gazprom Export’s contract and pricing department, Sergei Komlev, admits that the pandemic represents the biggest uncertainty for 2020, rendering forecasts meaningless. He told the company’s in-house magazine last week that the virus has hurt Asian prices as demand has dropped. The hope is that Chinese demand will recover as the government brings the disease under control, and that threats of force majeure will lift (WGI Mar.11’20). Russian LNG export champion Novatek and Gazprom both insist they weren’t affected, although Gazprom closed its Power of Siberia pipeline to China for maintenance from Mar. 16 to Apr. 1.

In Europe, the spread of Covid–19 won’t ease oversupply. European hub prices have already dropped below $3 per million Btu — less than the short-run marginal cost of Russian piped gas and LNG. But Gazprom has demonstrated that it is willing to sell spot volumes at very low prices to maintain market share, counting on more expensive term contract supplies with take-or-pay clauses to bring in cash (WGI Mar.18’20). Novatek’s Yamal LNG may also maintain sales, counting on high-margin condensate exports to improve overall project economics. It is also increasing the percentage of LNG sold on term contracts that are mainly price-linked to oil and incorporate destination restrictions. It still plans to open a fourth, 900,000 ton per year train at Yamal LNG this year, although technology problems have delayed start-up until the third quarter, and to sanction the 5 million ton/yr Obsky LNG (WGI Jan.29’20). Novatek’s Yamal LNG also intends to defer output from the flexible Troll gas field. The company says it is too early to tell when maintenance will now be carried out. But analysts don’t expect all Norwegian maintenance to be rescheduled, meaning that an extra 1.75 billion cubic meters (62 billion cubic feet) of Norwegian gas will be available over the summer, adding to the existing supply overhang and putting further pressure on European prices. But a strong contango in the European gas forward curve is an incentive to defer output from the flexible Troll gas field. The field will produce 5 Bcm below its 36 Bcm output quota for 2019–20 because of a second-quarter hit from coronavirus, although lengthy offshore maintenance elsewhere could reduce the impact, according to the senior gas analyst at data provider Refinitiv, Marina Tsygankova.

Companies’ use of skeleton crews will curb planned maintenance on gas platforms and processing plants this spring and summer. Equinor says it will defer maintenance scheduled this spring on the Asgard A and B, Kristin, Norne and Troll C oil and gas platforms, as well as the Snohvit LNG plant. Spokesman Morten Eek says it is too early to tell when maintenance will now be carried out. But analysts don’t expect all Norwegian maintenance to be rescheduled, meaning that an extra 1.75 billion cubic meters (62 billion cubic feet) of Norwegian gas will be available over the summer, adding to the existing supply overhang and putting further pressure on European prices. But a strong contango in the European gas forward curve is an incentive to defer output from the flexible Troll gas field. The field will produce 5 Bcm below its 36 Bcm output quota for 2019–20 because of a second-quarter hit from coronavirus, although lengthy offshore maintenance elsewhere could reduce the impact, according to the senior gas analyst at data provider Refinitiv, Marina Tsygankova.

In the UK, Ineos says it has pushed back the planned summer shutdown of the North Sea Forties Pipeline System until August, at the earliest, to “avoid bringing together large numbers of people.” The 235 mile (380 kilometer) system supplies the UK with a third of its offshore gas from 85 platforms. OGUK Health

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**Supply**

**European Gas Producers Adapt to Survive**

No part of the European gas industry is escaping the coronavirus pandemic. Upstream, companies are having to delay scheduled maintenance as rigs are increasingly populated by skeleton crews. Downstream, gas demand has taken a hit as most EU governments introduce lockdowns and travel restrictions, with economies grinding to a halt (WGI Mar.18’20). At the same time, the demand-sapping impact of coronavirus and the Saudi–Russia price war have sent crude oil prices tumbling to their lowest in 20 years. That has prompted many of the world’s biggest producers to slash spending, likely delaying many planned new projects.

For the moment, at least, companies operating in Europe’s main producing regions are maintaining gas output, even though a number of offshore workers have reportedly tested positive for coronavirus. In Norway, state–controlled Equinor says production is normal even though it scaled back nonessential work both on- and offshore after a worker at the offshore Martin Linge field was found to be infected with coronavirus in early March. Oslo has classed oil and gas and offshore employment as critical activities, while introducing measures to guard against the spread of the virus. UK industry body Oil & Gas UK (OGUK) has similarly laid down guidelines banning employees from working offshore if they have recently traveled to high–risk countries such as China, Iran and Italy. The lobby group has also established the Pandemic Steering Group with representatives from the UK’s upstream to coordinate a response to the crisis.

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Vitaly Sokolov, Moscow
and Safety Director Trevor Stapleton told a recent briefing that the industry body was consulting with UK North Sea operators to see whether nonessential spring and summer maintenance could be deferred.

If North Sea maintenance gets rescheduled to the third quarter, supply will be easier to balance for the second half of the year, according to gas analyst Jane Rangel at consultancy Energy Aspects. If not, prices need to stay low enough to discourage output for a longer period.

Most operational and under-development gas fields have reported no impact from coronavirus. The exception is Martin Linge, where Equinor had to airlift the worker who tested positive for the virus off the platform along with around 140 other workers. The field was intended to start up by the end of the year, adding 5 million cubic meters per day. But Equinor is now expected to delay start-up until 2021.

Longer-term supply is more uncertain. Volumes from new projects could be in jeopardy as the industry slashes spending in response to the price crash. At least five leading European producers, Royal Dutch Shell, Total, Equinor, Eni and Repsol, have moved to conserve cash, while BP has suggested it will take action soon. Energy Intelligence’s Research and Advisory unit expects global upstream spending to fall around 20% year-on-year in 2020, dragged down largely by a 35%-40% crash in US spending. Consultancy Rystad Energy reckons that global upstream capital expenditure will drop to a 13-year low of around $450 billion, with cost cuts hitting US shale, and delaying yet-to-be-sanctioned projects and exploration activity. Consultancy Wood Mackenzie tells Energy Intelligence it expects North Sea oil and gas projects that have not been sanctioned to be pushed back by one or two years.

Gonzalo Monroy says Mexico is “trying to be the launch pad for the cheapest gas — US shale gas — to reach the Asian Pacific LNG market and at the end of the day is competing with the lowest-cost producer, Qatar, to supply places like South Korea, Japan and China.”

Costa Azul, which Sempra will develop with Mexican subsidiary IEnova, has lined up preliminary buyers for first-phase output, with Mitsui, Total and Tokyo Gas all pledging to take around 800,000 tons/yr each. If the deals can be firmed up in the next few weeks, Wood Mackenzie gas analyst Rodrigo Rosas believes the project should move ahead quite quickly. Monroy is more skeptical. Sempra started out as an electric and gas utility and developer of energy infrastructure, and does not own reserves. “They have a huge marketing branch but at the end of the day they don’t have production like companies such as Shell and Exxon, and nor do they have the offtakers so it will be really challenging for them,” Monroy says. “It wouldn’t surprise anyone if Sempra looks for a partner to develop the project.”

The plant is designed to run on US gas, which Mexico is importing in increasing volumes in a bid to reduce dependence on more expensive LNG imports. The US shipped 5.6 billion cubic feet per day to Mexico last week, or less than half of operational cross-border pipeline capacity. More capacity is being built, but new pipelines face opposition (WGI Jul.24’19). The outlook is complicated by the fact that markets are in uncharted territory as coronavirus hits demand while the Opec-plus collapse has sunk oil prices. That has forced a pullback in US oil drilling that will slash associated gas output. Rosas reckons US gas production could drop around 4.7 Bcf/d by the end of 2020, while Mexican gas demand falls because of recession.

Right now, Mexico’s energy ministry is reporting LNG injections at record lows. Two import terminals are in operation — Altamira on the Gulf of Mexico and Manzanillo on the Pacific. Most Altamira volumes were displaced last year after the Sur de Texas-Tuxpan pipeline opened to deliver Texas gas to the southern Mexican state of Veracruz. Imports into Manzanillo are expected to drop on the opening of the Wahalajara corridor, which will connect Texas gas with Guadalajara in west-central Mexico, Rosas says.

Manzanillo is already heavily undersupplied. It has “taken the minimal amount of LNG due to issues with a Shell contract and is paying a penalty and redirecting cargoes to Asia,” Monroy says. “As the economy dips into recession, demand will slow down and with that the need to import LNG. But down the road, a combination of factors such as price differentials, infrastructure bottlenecks, economic growth, and the role of Mexican energy regulator CFE will all determine if Mexico walks away from LNG imports.” Lack of storage is another consideration, he says. Mexico “pretty much only has enough for one day in terms of oil storage but virtually none for natural gas, so when there’s a shortage in the US or a stoppage operationally that’s why they have to have LNG in place.”

Jaime Concha, Copenhagen

PIEPLINES

Mexican Gas Flounders in Uncharted Waters

US-based Sempra is pushing ahead with an LNG export plant in Mexico, seemingly undeterred by the spread of coronavirus, saying last week it intends to sanction the 3.25 million ton per year first phase of its Energia Costa Azul project in the second quarter. The move runs counter to the trend in many other parts of the world, where projects from Qatar to Mozambique look set to be delayed, but observers say construction of the brownfield Pacific Coast plant could make sense (p6). First, it is a bet on “long-term demand for LNG, especially in Asia,” says Adrian Duhalt from Rice University’s Baker Institute. “The project is mainly targeting Pacific demand, where LNG will continue to be needed.” Second, it could allow Sempra to steal a march on rivals putting liquefaction projects on hold as gas demand shrinks. Mexico City-based energy consultant Alex Chapman, London

Jaime Concha, Copenhagen
LNG Projects Under Attack From Virus, Lower Demand

A deadly combination of coronavirus, weak gas demand and spending cuts will likely lead to major delays and disruptions of development and engineering schedules for LNG projects under construction worldwide, forcing a rethink of market balances later this decade. Projects on which final investment decisions (FIDs) are imminent are also being affected. These include Qatar’s mega-expansion, as well as three schemes in Australia (p3). Woodside said last week it is pushing back FID on Scarborough and Pluto Train 2 a year to 2021, and delaying Browse indefinitely (WGI Feb.19’20).

Lockdowns are halting travel between and within countries, and bringing all but essential business to a halt. Royal Dutch Shell said last month it had more than halved the workforce at its 14 million ton per year LNG Canada construction site in British Columbia, where a public health emergency has been declared. But it said essential work continues and the project should still deliver its first cargo before the mid–2020s (WGI Oct.10’18). LNG Canada had already been hit when Chinese fabrication yards manufacturing some modules were temporarily closed by coronavirus earlier this year. Elsewhere in British Columbia, the 2.1 million ton/yr Woodfibre has pushed back the start of construction until next year because of the temporary closure of an Asian fabrication yard and because the prime contractor for the marine portion of the project, McDermott International, filed for bankruptcy protection in the US in January (WGI Feb.26’20).

In the US, Venture Global’s 10 million ton/yr Calcasieu Pass should be at peak global fabrication and site works ahead of its planned late 2022 start (WGI Dec.18’19). But an EPC source reckons the virus could lead to 12–18-month delays. Venture Global hired Italy’s Nuovo Pignone to manufacture the process modules, but the source says work has stopped because of lockdown in Italy. Venture Global says construction continues in Louisiana, but it’s taking extra measures to protect the workforce. These include social distancing on buses used to ferry workers to the site. The source says double the number of buses are needed.

Mozambique’s three LNG projects also face challenges (WGI Jan.15’20). Eni’s 3.4 million ton/yr Coral floating project is due on line by early 2023, Total’s 12.9 million ton/yr Mozambique LNG in 2024 and Exxon Mobil’s 15.2 million ton/yr Rovuma LNG in 2025. Rovuma was supposed to take FID in mid–2020, but sources at Rovuma partner China National Petroleum Corp. tell Energy Intelligence that weak demand and low prices will push that back. The scaling up of construction at Mozambique LNG, sanctioned in mid–2019, also faces unavoidable delays, sources say.

Mozambique has just announced its first Covid–19 cases, and the country “is in lockdown, and no engineers can get in or out,” a source says. While Coral is being built at a Samsung Heavy Industries’ yard in Geoje, South Korea, coronavirus has disrupted supply chains there. “There are no camps so that is a positive, but they are very crowded construction areas,” the EPC source says. Another African floating project, BP’s Tortue off Mauritania and Senegal, has contracted Singapore’s Keppel Offshore to convert the Gimi, for completion in 2022. Singapore recently tightened social distancing rules requiring companies, including construction sites and shipyards, to keep workers further apart and reduce crowd density. Keppel declined to comment on its response. Nigeria is meanwhile targeting startup in 2024 of a seventh 4.2 million ton/yr train finally sanctioned in December (WGI Jan.15’20). But with coronavirus on the rise in Nigeria, more delays could occur.

BP’s 3.8 million ton/yr Tangguh Train 3 in Indonesia may also be delayed again. BP suggested at one point it could be operating in 2018, but the authorities said last year it was expected to start up in the third quarter of 2021, a year later than planned. A spokesman for Japan’s Chiyoda, the EPC contractor, says that “to complete Tangguh Train 3 successfully, we are now discussing with our clients how to minimize the impact from coronavirus”

As more countries introduce lockdowns, staff will not be able to travel for equipment inspection or witness testing. To protect site workers, the number of shifts is being increased and work hours staggered, the EPC source says. “The issue is in the external — coming in, going out, dining facilities, transportation, camp housing for remote sites where there are big groups of typically 4,500–5,000 plus on site. ... You will see big transmissions of the virus. When someone gets sick, the contractor teams will try to identify everyone they had contact with and quarantine them too. Pretty soon, no one is left to work.”

The source believes delays are inevitable, but reckons rescheduling can minimize cost increases. “If you reschedule and change the resource loading — staffing — on a job to align with the material supply chain, this can be managed at least.” But Exxon may try to use the delay to negotiate cuts to Rovuma’s EPC costs as the US major slashes global spending in response to the oil price crash.

According to Energy Intelligence’s Research and Advisory unit, coronavirus–related construction disruptions could tighten the LNG market dramatically by 2024. Short term, the imbalance will get worse as demand will likely fall faster than supply, and prices will struggle, another analyst says. “But we were, simultaneously, building so much new capacity that we risked crashing the market again in the mid 2020s, and as projects get delayed and FIDs are postponed, there is less risk of a perpetual overhang.” The analyst says that much will hinge on the pace of economic recovery, but the “medium term outlook looks more balanced because, everything else being equal, this crisis will slow down supply more than [medium–term] demand.”

Clara Tan, Singapore, and Peter Kemp, Jane Collin and Alexandra Chapman, London
Bulls and Bears Fight for Supremacy in US Gas Market

The US gas sector has never been so bearish and bullish at the same time. Near-term fundamentals are pulling gas futures to 25-year lows, while prices in a $3–$4 per million Btu range could emerge with winter 2020–21.

When April gas futures rolled off the board on Mar. 27 at $1.634/MMBtu — a settlement low not seen since 1995 — it’s hard to imagine that bullish days are ahead. But they’re coming, as demonstrated by the long-range Nymex strip and backed by solid analysis.

The market was exceptionally volatile in March, when the front-month contract was pushed and pulled by crosswise currents that drove it to almost $2/MMBtu on Mar. 11 before pressing it into the low $1.50s/MMBtu a week later. Bearishness prevailed and the April contract ended its stint as prompt month 18.7c lower than when it started on Feb. 26.

There is little reason to suspect that bulls will have an easier time with the new May prompt month as heating loads fall and power burns threaten to spiral down as efforts to contain the coronavirus pandemic escalate. No part of the North American gas industry from the wellhead to burner tip has escaped unscathed as the virus intensifies its grip, with the shock to the US LNG export sector particularly acute.

“The impact of the pandemic is significant and lasts for the next 18 months or so,” Poten and Partners Global Head of Business Development Jason Feer said late last month on a webinar about LNG’s pain. The demand loss alone is expected to leave a global surplus of 24 million tons this year, triple the expected glut before the outbreak, he said, adding that the US will bear the brunt of lower demand in Asia and Europe. “We will most likely see pretty significant cargo cancellations” in the coming weeks, he predicted.

The tolling contracts that financed most first-wave plant construction in the US mean buyers pay a fixed fee of around $3/MMBtu whether or not they use the liquefaction capacity. If buyers decide it’s uneconomic to lift cargoes, plants will remain open as lifters still have to pay the fee. But the loss of feed gas demand — recently as high as 9 billion cubic feet per day — would add to sector oversupply.

Meanwhile, US power demand, much of it met by gas-fired turbines, has been falling as schools and businesses close and millions stay home. So far, 21 state governors have issued mandatory stay-at-home orders for all but essential employees covering more than half the US population. It’s estimated that US gas-burns could fall 2 Bcf/d–4 Bcf/d, although hard data is still being assessed.

The near term consequently looks bleak for bulls, with a real possibility that the next three quarters could see prices average in the $1.60s and $1.70s, with large amounts of surplus gas forcing localized production shut-ins. But the Nymex tells two tales. The first is that 2020 could be the hardest year yet for gas bulls, as anemic pricing and efforts to rein in production only gradually tame oversupply. The second is that, come 2021, bulls could be back in the saddle.

“The combination of lower US gas production with a global recession this summer has set the stage for a ‘whiplash’ in US natural gas markets,” Goldman Sachs analyst Samantha Dart says. “Specifically, we expect that the cut in associated gas production, although significant, will show in US gas markets late enough this year that end-summer 2020 storage will likely face record-high levels, keeping summer prices under pressure.”

The 2021 strip has reflected this view, maintaining a certain level of value even while the front months melted down. When April gas entered March, the 2021 calendar strip was valued at $2.276/MMBtu; it was at $2.452 when April expired last week. The increase reflects the view that the collapse of the oil market will slow if not reverse associated gas volumes, primarily in the Permian Basin. Baker Hughes reported last week that oil drillers laid down a remarkable 40 rigs, versus 19 a week earlier, bringing the total to 624.

The oil sector meltdown, triggered by a Russian–Saudi price war and exacerbated by the demand-sapping spread of coronavirus, has pushed West Texas Intermediate crude futures to lows not seen for decades. And while US oil futures are expected to claw back ground, Energy Intelligence’s Research and Advisory unit sees US oil barrels averaging in the $30s until late this year. It will probably be the start of winter 2020–21 before associated gas production declines become more visible, Dart says, precipitating a sharp rally in gas prices.

Tom Haywood, Houston
Asian Spot Prices Crash, With Europe Close Behind

Northeast Asian spot LNG prices plunged 90¢ to a record low of $2.60 per million Btu, according to World Gas Intelligence assessments for deliveries four to eight weeks ahead, handing back the gains clocked up since late February, largely because of factors related to coronavirus. Spot LNG prices in Southwest Europe were assessed 45¢ lower at $1.85/MMBtu. The UK National Balancing Point (NBP) day-ahead price was assessed 22¢ lower at $2.33/MMBtu while the new ICE NBP May front-month contract dropped 4¢ to $2.04/MMBtu. Netbacks for Middle East sellers in Asia were about 80¢ higher than in Southwest Europe, while UK/Belgian netbacks were almost 55¢ lower than in Asia.

The coronavirus pandemic continues to collapse global demand, with lockdowns imposed on more LNG-importing countries. India is the latest to implement restrictions on movement for three weeks starting on Mar. 25, which is set to cut near-term downstream gas demand and affect importers’ ability to take in LNG cargoes normally (p2). Buyers including Petronet have already issued force majeure notices to some suppliers, although it is unclear if sellers will agree to such declarations.

Indian importers have stopped buying spot LNG, an about-turn from earlier in March when they were hunting down bargain buys amid low spot prices. State-run GSPC may have scrapped a seven-cargo buy tender. Fertilizer producer Fact had been seeking three cargoes via a tender that closed on Mar. 20, but results have yet to surface.

Asian spot prices also face pressure from sliding gas prices in Europe, where the coronavirus is similarly sapping demand. The Atlantic-Pacific arbitrage has narrowed considerably. The Asian spot price premium to the Dutch TTF hub in the Netherlands slid to around 37¢/MMBtu on Mar. 30 after holding above $1/MMBtu the week before, its widest since mid-January. But incremental demand from China, where the virus appears to have been contained, could provide East of Suez price support. The prompt short covering of delivery positions to China is under way, while several Chinese buyers have stepped up spot procurement.

Elsewhere in Northeast Asia, buyers in Japan, South Korea and Taiwan are generally hovering on the market sidelines, with key importers still long on contracted supply in the near term. Crude oil prices remain in the doldrums, hit by the coronavirus as well as the price war between key producers Saudi Arabia and Russia. Much Asian term supply is still price-linked to oil. Supply pressure has meanwhile increased. Qatar has been offering multiple spot cargoes in the past week, traders say, while producers in Russia and Papua New Guinea have also offered spot volumes.

Asian spot deals have been setting new benchmark lows “nearly every day,” according to a Singapore-based trader. The latest price reference came this week when Sakhalin LNG awarded a May cargo via tender at around $2.65/MMBtu to a Chinese buyer, traders say. Deals were done in the high-$2/MMBtu to low-$3/MMBtu just last week.

In Southwest Europe, spot prices were assessed below $2, hit by Covid-19 and the domino effect of lower Asian prices, plus European hub prices that dipped this week to their lowest since 2009. As the arbitrage economics vanish, sources reckon shippers may cancel US cargo liftings. “It seems like a case of how many cargoes will be shut in, not if they will be shut in,” one source says.

US export pioneer Cheniere approached the spot market this week with a tender to buy six cargoes for delivery to Europe on a delivered ex-ship basis later this year. Sources say this illustrates the “cheaper economics of pur-chasing cargoes versus producing them in today’s climate.” The tender, which calls for deliveries between May 1 and Dec. 31, was due to close on Apr. 1. Elsewhere, Mexico has still to award its latest buy tender, whose closing date was pushed back from mid-March to Apr. 24. Imports have been affected by slowing demand (p5).

In Northwest Europe, the loading schedule remains relatively quiet. Although the Asian arbitrage window has now slammed shut, imports into Europe have yet to match levels seen in late 2019 and early 2020. Five Qatari cargoes were scheduled into the UK’s South Hook between Mar. 31 and Apr. 15. One cargo from Trinidad and Tobago was due at Isle of Grain on Mar. 31, followed by a US cargo on Apr. 9. In Belgium, three Qatari cargoes were expected into Zeebrugge between Apr. 3 and Apr. 14. In the Netherlands, a Russian cargo will arrive at Gate on Apr. 3, followed by a Trinidadian cargo on Apr. 10.

Irwin Yeo, Singapore, and Alexandra Chapman, London
The following graphs provide weekly comparative insights into key LNG market relationships over the previous 12 months, with particular emphasis on the price of competing supplies in Asia and key inter-market price spreads.

### Northeast Asia Spot LNG Versus Asia Term LNG

![Graph](东北亚现货LNG与亚洲长期LNG

### Henry Hub NE Asia Versus Asia Term LNG

![Graph](亨利枢纽东北亚与亚洲长期LNG

### NBP Versus Northeast Asia Spot LNG

![Graph](NBP与东北亚现货LNG

### Henry Hub Gas Delivered to UK Versus NBP

![Graph](亨利枢纽天然气送达英国与NBP

### Regional Price Differentials to Nymex Henry Hub Prompt

![Graph](区域价格差值与NYMEX亨利枢纽

### Term JCC Versus Term Brent

![Graph](长期JCC与长期布伦特

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(a) Oil parity = 17.24% of Brent-Linked Asian Term. (b) Estimated low, middle, and high cases for contract terms: 13.5% of Brent + $0.50, 14.5% of Brent + $0.50, and 14.85% of Brent + $1.00, respectively. (c) Brent-Linked Asian Term LNG, high and low cases. (d) Per Cheniere formula: 115% Henry Hub plus $3.50 for liquefaction and $2.50 for shipping. (e) ICE prompt NBP converted from pence/therm to US$/MMBtu. (f) Thomson Reuters Day Ahead NBP converted from pence/therm to US$/MMBtu. (g) Per Cheniere formula: 115% of Henry Hub plus $3.50 for liquefaction and $1.00 for shipping. (h) Northeast Asia Spot vs Nymex Henry Hub Prompt. (i) Day Ahead UK NBP vs Nymex Henry Hub Prompt. (j) Term prices based on current month average against mid-case formula for delivery 3 months later; (k) JCC is Monthly Japan Crude Cocktail Price reported by Japan's Ministry of Finance.
### WGI LNG Analytics

**GAS, POWER PRICES & SPARK SPREADS FOR GENERATORS AT MAJOR HUBS**

<table>
<thead>
<tr>
<th>Gas Hub</th>
<th>Mar 30</th>
<th>Week Ago</th>
<th>Last Year</th>
<th>Mar 30</th>
<th>Week Ago</th>
<th>Last Year</th>
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<tbody>
<tr>
<td>NBP(UK)</td>
<td>2.33</td>
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<td>4.49</td>
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<td>1.44</td>
<td>2.53</td>
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<tr>
<td>Zeebrugge</td>
<td>2.47</td>
<td>2.63</td>
<td>4.50</td>
<td>Houston SC</td>
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<td>1.63</td>
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<td>Dutch TTF</td>
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<td>Socal Border (Calif)</td>
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<tr>
<td>German NCG</td>
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<td>2.74</td>
<td>4.91</td>
<td>Stanfield (Wash)</td>
<td>1.35</td>
<td>1.69</td>
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<tr>
<td>UK Power Grid</td>
<td>35.39</td>
<td>31.89</td>
<td>55.12</td>
<td>PJM West</td>
<td>20.80</td>
<td>23.20</td>
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<tr>
<td>TenT</td>
<td>27.04</td>
<td>22.89</td>
<td>43.66</td>
<td>Ercot</td>
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<td>Palo Verde</td>
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<td>22.08</td>
<td>37.98</td>
<td>Mid-Columbia</td>
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<table>
<thead>
<tr>
<th>Spark Spreads ($/MWh)</th>
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<th>Week Ago</th>
<th>Last Year</th>
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<td>German NCG/Amprion</td>
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<td>+3.60</td>
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**Week Two Weeks Year**

<table>
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<tr>
<th>NE Asia</th>
<th>Mar 30</th>
<th>Week Ago</th>
<th>Two Weeks Ago</th>
<th>Year Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
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<td>1.72</td>
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<tr>
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<tr>
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<td>Peru</td>
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<td>2.85</td>
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<tr>
<td>Qatar</td>
<td>1.77</td>
<td>2.20</td>
<td>1.06</td>
<td>3.61</td>
</tr>
<tr>
<td>Russia</td>
<td>2.11</td>
<td>2.62</td>
<td>1.49</td>
<td>3.98</td>
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<tr>
<td>Trinidad</td>
<td>0.91</td>
<td>1.38</td>
<td>0.20</td>
<td>2.95</td>
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<tr>
<td>US Gulf</td>
<td>0.46</td>
<td>0.95</td>
<td>-0.24</td>
<td>2.52</td>
</tr>
</tbody>
</table>

**US ($/MMBtu)**

- **Henry Hub (Louisiana)**: 0.03 1.67 1.64 1.85 1.72 1.71 1.84 2.10
- **Transco ZE - NY**: 0.02 1.84 1.84 1.95 1.84 1.83 1.96 2.27
- **Chicago City Gate**: -0.05 1.84 1.84 1.95 1.84 1.83 1.96 2.27
- **SoCal City Gate (California)**: -0.35 1.65 1.99 2.59 2.15 1.89 3.38 5.48
- **Columbia Appalachian Pool**: -0.07 1.34 1.41 1.51 1.47 1.51 1.60 1.86
- **Kern River / Opal (Okl)**: -0.15 1.28 1.42 1.89 1.57 1.48 1.99 2.50

**Canada ($/MMBtu)**

- **AECO (Alberta)**: -0.03 1.32 1.26 1.37 1.31 1.27 1.41 1.82
- **Dawn (Ontario)**: -0.04 1.45 1.49 1.66 1.57 1.61 1.72 2.06
- **Emerson (Manitoba)**: -0.09 1.41 1.50 1.67 1.57 1.59 1.74 2.10

**Southwest Europe LNG ($/MMBtu)**

- **Dawn (Ontario)**: -0.45 2.55 4.49
- **Dutch TTF (euro/MWh)**: -0.45 2.55 4.49
- **Henry Hub (Louisiana)**: 2.00 4.91
- **NBP (pence/therm)**: 0.69 2.78
- **US Gulf (pence/therm)**: 0.83 2.38

**Future (prompt close)**

- **Nymex Henry Hub ($/MMBtu)**: 0.09 1.69 1.60 1.82 1.78 1.76 1.82 2.14
- **ICE NBP (pence/therm)**: -4.62 17.00 21.62 22.97 21.62 22.38 22.83 31.18

Sources: Energy Intelligence, Reuters, Exchanges

Click here for WGI LNG Netback methodology.