Titans of business and politics pledge to fight global warming

Bloomberg/New York

Millions of people in 170 countries took to the streets to protest. World leaders lined up at the UN to pledge action. A 16-year-old girl, close to tears, shamed them for robbing her of a future.

The pressure to act on climate change is mounting. Titans of global business and politics gathered in New York this week for a series of events, including an unprecedented UN summit and the Bloomberg Global Business Forum, to acknowledge that more must be done — but fell short of saying exactly what will be done.

“Time is running out in the court of public opinion, because time is running out to address climate change,” New Zealand Prime Minister Jacinda Ardern told heads of state and business chiefs at the Global Business Forum on Wednesday. “It’s right for them to hold our feet to the fire.”

The stakes have indeed never been higher. Temperatures have already risen 1 degree Celsius (2 degrees Fahrenheit) since the 1880s. The world must limit that warming to no more than 2 degrees above Industrial Revolution levels, the UN has warned, to avoid the most catastrophic of droughts, floods, mass migrations and conflicts. “You can just feel the groundswell of popular sentiment, that the urgency of this is elevated,” Goldman Sachs Group Inc chief executive David Solomon said during the forum.

When asked whether there’s enough information out there to determine his own bank’s exposure to climate change, Solomon said, “We’re working on it. The answer is we’re working on it.” It was a response that underscored both the heightened awareness among leaders that they will be held responsible for global warming and the work that still lays ahead of them.

The meetings were still “far too much a chance for people to beat their chests and say they’re making change,” said Brad Cornell, a business professor at the University of California at Los Angeles. “But who is making real change?”

The UN pointed to some change that came from its Monday summit: 77 countries committed to cutting greenhouse-gas emissions to net zero by 2050; 70 countries pledged to bolster climate action plans by 2020; more than 100 business leaders aligned themselves with the goals of the international Paris climate agreement; and 12 countries vowed to contribute to a fund to help developing countries adapt to climate change.

Nobody says that’s enough. UN Secretary-General Antonio Guterres, who organised the summit and called on world leaders to announce real plans at it, said as presentations concluded, “We need more concrete plans.”

The UN-backed Intergovernmental Panel on Climate Change released a report Wednesday with alarming findings on fast-accelerating and potentially irreversible deterioration of oceans and glaciers.

While some of the world’s most powerful leaders sounded off on climate in New York, a UN panel convened almost 400 miles (600 kilometres) away in Montreal to continue a years-long debate over curbing emissions from airplanes. The group may decide on what kind of system to use to regulate them — a laborious and highly political process that went largely unmentioned in Manhattan. And yet there were signs in New York that the tide is turning in favor of real action.

At the conclusion of Monday's annual meeting of the Oil and Gas Climate Initiative, an industry-supported group that also met in New York, the majority of the member CEOs stuck around for a discussion on climate change. In all, nine were present at the talk, including the bosses of Exxon Mobil Corp and Chevron Corp who faced questions from students and activists as well as reporters.

"And they were listening," according to Felipe Bayon, CEO of Colombia's state-run oil giant Ecopetrol. "I'm very encouraged. As a citizen of the world, I think that a lot of things are possible."

Credited for inspiring the millions of young people who've rallied around climate change in recent days is Greta Thunberg. The teenage activist sailed to New York on a zero-emissions boat, climbed the stage at the UN summit and told the crowd of more than 300 presidents, prime ministers, CEOs, bankers and delegates that they've let down her entire generation by not acting on climate change. "You have stolen my dreams and my childhood with your empty words," she said on Monday. "How dare you!"

Anand Mahindra, chairman of India's Mahindra & Mahindra Ltd, said Thunberg gives him hope, as do all of the young people calling for change. It took the youth of the 1960s protesting the Vietnam War to wake everyone up to the fact that the war needed to end, Mahindra said. He's hopeful, he said, that they can do it again to win the fight against climate change.

The movement grew so big that even US President Donald Trump, who has called climate change a myth and vowed to pull America out of the Paris pact, made an unexpected appearance at the UN summit. He stayed for 15 minutes and didn't speak. China President Xi Jinping didn't attend the summit at all — leaving the leaders of the world's two largest polluters visibly

absent from the presenters’ list.
During the Global Business Forum on Wednesday, business leaders repeatedly pointed the finger at government to step up and dictate what should be done. “The more there’s a clear policy framework,” Solomon said, “the more you’ll get a reaction and response.”
Samir Assaf, CEO of global banking and markets at HSBC Holdings Plc, had one idea: “The private sector can provide debt, and national development banks can provide guarantees.” To which moderator Christine Lagarde, the incoming president of the European Central Bank, responded: “So, the public takes the risk and the private takes the profits.”
Green investments are proving to be less of a risk and more of a moneymaker. Solar and wind power costs have plunged so deeply that they’re now the cheapest and most profitable form of new electricity in two-thirds of the world. CEOs of corporations worldwide are saving billions by cutting their plastic waste, using less, cleaner and cheaper energy and recycling.
The world will face a serious test next year. Under the Paris agreement, countries are expected to submit new, and ideally more ambitious, climate action plans every five years. The next presentations are due in 2020.
“There’s an enormous gulf right now,’’ said Kelly Levin, a senior associate at the World Resources Institute in Washington, “between current momentum and where we need to be.”

LNG investments hit record

$50bn in 2019: IEA chief

Reuters Tokyo

Record investments of $50bn have turned 2019 into a banner year for liquefied natural gas (LNG), with Canada and the United States being the main drivers, the chief of the International Energy Agency (IEA) said yesterday.
The industrial sector is Asia’s biggest driver of LNG growth, with China expected to overtake Japan as the world’s top importer of the fuel in five years, said Fatih Birol, the agency’s executive director.
“This year, 2019 already broke the highest amount of (final investment decisions) for the first time ever, $50bn,” he told the annual LNG Producer-Consumer conference in Tokyo.
More than 170bn cubic metres (bcm) of natural gas liquefaction capacity is due to take a final investment decision this year, a record far surpassing the previous high in 2005 of 70 bcm, according to the IEA.
The recent boost in contracting activity and project sanctioning follows the growing adoption of the equity offtake marketing structure, where companies have access to LNG volumes according to their equity stake, reducing the need for

long-term sale and purchase agreements, the agency said in a report released this month.
“The biggest growth is coming from China,” Birol added. “In the next five years, about one-third of global LNG demand will come from China alone.”
While LNG imports by Japan, the world’s top buyer of the super-chilled fuel, and Korea are expected to stay important, slowing growth there means the biggest contribution will be from China, Birol said.
Other Asian nations, such as Bangladesh, India, Pakistan, Thailand are also importing more LNG. European LNG imports will also increase as domestic gas production declines and nations diversify supply, Birol said.
For instance, European natural gas production has halved over the past decade, increasing the call on other sources of flexibility, IEA said in the report this month.
The United States will make up two-thirds of global growth in LNG exports, which could turn pricing dynamics in Asia towards more gas-linked, rather than oil-linked LNG contracts, he said.
About 70% of LNG contracts are oil-indexed, with the rest geared to gas.
That could soon change to a 50-50 pricing mix, Birol added.

The Climate-Change Debate Has Shifted, Not Ended

Is there still a debate over climate change? Yes and no. As a scientific matter, the issues of whether it’s happening and who’s to blame are long settled. But there’s no end to debates about what to do about it. Arguments about the need for and costs of action are playing out against a nonstop, live-on-TV drama of the massive storms, record wildfires and deadly heat waves already fueled by global warming.

1. What’s new in the climate debate?

For one thing, there’s been a revolution in renewable energy. The price of wind and solar has plunged in a way even its most ardent backers wouldn’t have dared dream 20 years ago. Bloomberg NEF projects that by 2050, renewable power will produce two-thirds of the world’s electricity, the same fraction that fossil fuel produces today. The world’s biggest polluter, China, is taking far more aggressive action to reduce greenhouse gas emissions than was expected even a decade ago. A combination of slower economic growth and a drive for cleaner air have put China ahead of schedule for its emissions to peak by 2030.

2. How has the debate shifted?

There’s robust argument over how to balance the effort put into mitigation versus adaptation. Mitigation gets most of the attention — the headline news from the 2015 Paris climate accord, for instance, was about the pledges different countries made to limit the release of greenhouse gases. But adaptation is becoming a pressing need as temperatures rise. Some communities are already trying to relocate away from rising waters. Storm-surge barriers and flood gates geared to climate change have gone up in Rotterdam and Venice. New York installed gates after parts of the city were inundated by the surge driven by super storm Sandy in 2012, and Houston, flooded by Hurricane Harvey’s torrential rains in 2017, is considering new defenses. Even steps as small as providing air conditioners for the poor can play an important role in making cities livable in a hotter future.

3. What’s the status of the Paris agreement?

Even though President Donald Trump intends to pull the world’s biggest economy out of the accord, the U.S. is still participating in nuts and bolts discussions on implementing the voluntary pledges made by almost 200 countries. Coalitions of cities, states, businesses and universities in groups such as We Are Still In and America’s Pledge have organized to keep progress going in the U.S. even if the country formally leaves the pact. (America’s Pledge was co-founded by Michael R. Bloomberg, the founder and majority owner of Bloomberg LP, the parent company of Bloomberg News. He has told the New York Times that he is considering a campaign for president.) The U.S. is currently seen as on track for its climate goals for 2020 but falling short of its longer-term pledges, as are the European Union and Japan, according to Climate Action Tracker, a research project.

4. What’s Trump’s argument?

Money. Trump said the Paris pact would hurt American workers and amounted to a “massive redistribution” of wealth from the U.S. to other countries. Meeting the Paris goals would conflict with his efforts to revive U.S. coal production. He’s also moved to water down fuel-efficiency standards and proposed rolling back Obama-era regulations meant to force utilities to reduce emissions. Officials in his administration insist that U.S. economic growth is a more urgent priority than climate change.

5. Who’s agreeing with him?

Influential groups of voters in countries where a shift away from dirty fuels has raised energy prices. In Australia, Malcolm Turnbull was pushed out as prime minister in August after conservatives in his party rebelled over his plan to write the country’s Paris targets into law. Canadian Prime Minister Justin Trudeau in 2015 bowed to pressure to allow pipelines carrying carbon-heavy oil from tar sands to be expanded. Now his plan for a national carbon price to drive down emissions is under attack and is expected to be a focus for his opponents in 2019 elections.

6. How much would meaningful action cost?

It’s hard to know, and there’s a wide range of forecasts. The Deep Decarbonization Pathway Project, a research effort backed in part by a United Nations group, estimates that for 16 leading countries, meeting their Paris targets would require investments amounting to 0.8 percent of gross domestic product a year by 2020 and 1.3 percent by 2050. The International Finance Corporation has estimated that the Paris accord opened up $23 trillion in investment opportunities for government and private industry by 2030. BNEF projects that half that much will actually be spent. Developed nations have committed to boost climate-related aid to poorer countries to $100 billion a year by 2020, including money from both public and private sources.

7. What are the stakes?

Because the warming process is cumulative, if by some magic all greenhouse gas emissions stopped tomorrow, researchers predict we may still be in for 1.5 degrees Celsius (2.7 degrees Fahrenheit) of warming this century — three times as much as we've seen since the mid-1990s. Climate Interactive, a research non-profit, calculates that even if the Paris pledges are met, we'd blow past the target of holding warming to 2 degrees above mid-19th century levels. If current emissions levels aren't reduced, warming could gallop past 4 degrees. Studies have projected changes ranging from more kidney stones, smaller goats and less sex in the short run, to swamped cities and widespread extinction of species in the decades ahead.

Italian Alpine glacier close to collapse, officials warn

ROME: Part of a massive glacier on the Italian side of the Mont Blanc mountain range is close to collapse after accelerated melting in the late summer heat, officials at a nearby town warned Wednesday.

This is the latest of a series of warnings about melting glaciers — in the Alps and elsewhere — as concern grows about the effects of climate change.

The mayor of the town of Courmayeur has ordered a local access road closed at night and limited access to the region below the glacier, which is popular with tourists, a town spokesman told AFP.

Town spokesman Moreno Vignolini dismissed “apocalyptic” reports in the media that it was threatening to smash down on the town itself. Below the glacier, he said, “there are no homes, only a few unoccupied chalets”.

Part of the Planpincieux glacier in the Aosta Valley is in danger of crashing into a valley running parallel to the Courmayeur valley, said Vignolini. “With the strong heat this summer, there has been between August and the first half of September, an acceleration of the melting of the glacier, at an average rate of 35 centimetres (14 inches) a day, up to highs of 50-60 centimetres on some days,”

The chunk of the glacier concerned, which makes up between a fifth and a sixth of the total and weighs around 250,000 tonnes, was threatening to break away and crash down into the valley, he added.
“There is a problem with a part of the Planpincieux glacier located at Val Ferret, which is thought to be falling due to a large fracture between the, say, stable part of the glacier and this part,” the mayor of Courmayeur, Stefano Miserocchi, told AFP.
Late on Tuesday Miserocchi ordered the night-time closure of the access road to Val Ferret, on the Italian side of Mont Blanc.
He has banned walkers from the area below the glacier, which is popular with visitors and has three mountain refuges.
Experts at the Fondazione Montagna Sicura (Safe Mountain Foundation), who have been monitoring the glacier for the Val d’Aosta region since 2013, alerted local officials to the latest developments.
“This glacier is atypical because it’s temperate, and so is influenced by the temperature of the water flowing below, which particularly exposes it to the global warming in progress,” said the foundation’s secretary-general Jean Pierre Fosson.
But he cautioned against alarmism, stressing that the preventive measures taken so far were for an “unprecedented situation” for a glacier in the region.
While it might break off in a single block, it could just crumble away or not break away at all, he added.
The Foundation monitors 180 glaciers in the Val d’Aosta region and this kind of thing is unavoidable, said Fosson. “Every year we see two square kilometres (0.8 square miles) of ice disappear” he said. “And it is getting worse with the increasingly hot summers and autumns.”

According to a landmark assessment approved by the 195-nation Intergovernmental Panel on Climate Change (IPCC), accelerating melt-off from glaciers and Earth’s ice sheets atop Greenland

and Antarctica are driving sea level rise. Since 2005, the ocean has risen 2.5 times faster than during the 20th century, threatening island nations and coastal cities. The rate at which the waterline rises will quadruple again by 2100 if carbon emissions continue unabated, the report found. On Sunday, dozens of people dressed in black attended a symbolic funeral march on a Swiss mountainside to mark the disappearance of an Alpine glacier on Pizol mountain. A study by Swiss researchers released earlier this month suggested that the Aletsch glacier – the largest in the Alps – could disappear completely by the end of the century if nothing was done to rein in climate change.

EU states delay 'green' finance guide, leave it open to nuclear power

BRUSSELS (Reuters) – A set of European Union standards to determine which financial products qualify as “green” should be delayed until the end of 2022, EU governments agreed on Wednesday, stirring concern because the guidelines might end up including investments in nuclear power.

The delay, if confirmed by EU lawmakers, could slow the growth of the $200 billion market for green bonds, by pushing back clearer standards that many investors wanted. Proponents of green investment condemned the postponement.

“We don’t need to waste two more years,” said Luca Bonaccorsi, an activist with the Transport and Environment campaign group. Clearer standards were urgently needed to fund a sustainable economy, he said.

Deciding which investments could be called green was part of a legislative proposal put forward last year by the European Commission, the EU’s executive arm. Its goal was to encourage private investment in environmentally sustainable businesses.

The proposal laid out a taxonomy – a set of criteria and procedures for deciding what made an investment green – that was due to take effect in 2020. But many EU members objected, fearing damage to their national industries.

Diplomats agreed to postpone introduction of the taxonomy by more than two years. They also agreed to grant governments more powers to decide which investments are green, amending procedures proposed by the commission that would have given independent experts more say.

NUCLEAR CONCERNS

EU governments' compromise does not exclude any economic activity from being listed as green. That could pave the way for declaring as green investments meant to reduce the environmental impact of nuclear reactors or plants seen as highly polluting.

The decision runs counter to recommendations from an EU expert group, which had advised in June excluding nuclear and coal-fired plants from the EU taxonomy. Their environmental impact was seen as going against EU targets to cut carbon emissions and reduce hazardous waste.

The text agreed by EU governments needs the approval of the European Parliament, which also wanted to rule out nuclear and coal investments from projects deemed green.

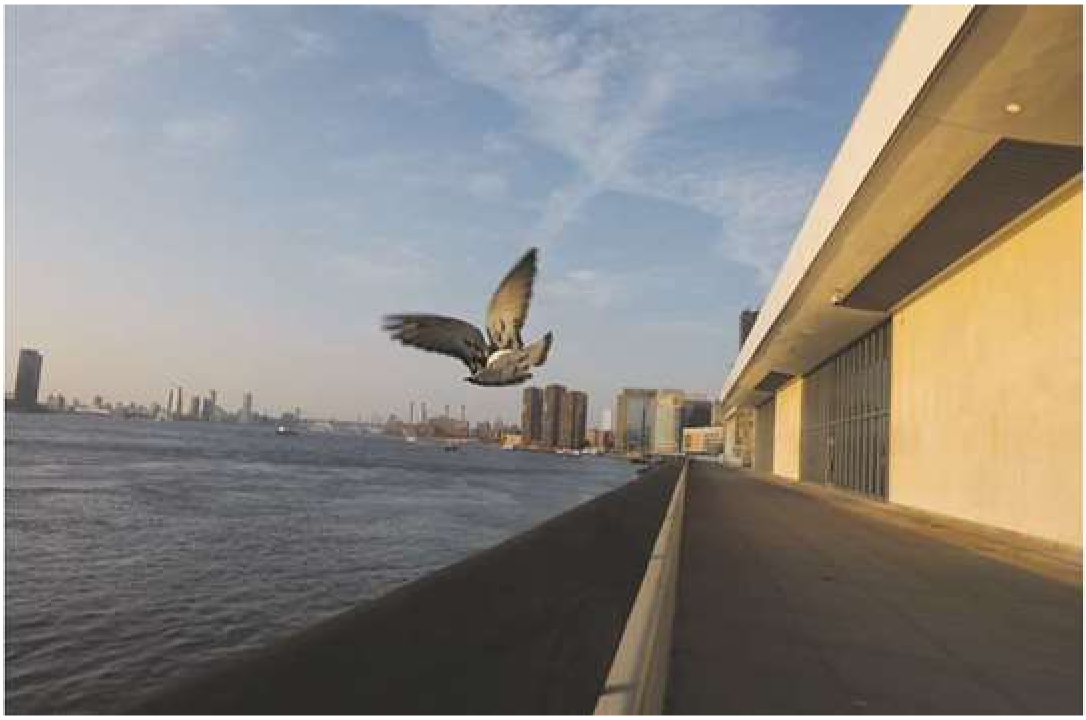
"This is a disaster," Green European lawmaker Sven Giegold said. Parliament will do all it can to apply the new standards earlier and to exclude nuclear and polluting activities from the taxonomy, he said.

By setting criteria on what investment is sustainable, the EU hoped to avoid different standards in its 28 states and increase the confidence of climate-conscious investors. Proliferating standards let companies "greenwash" their activities, claiming green credential they not deserve.

However, the EU taxonomy's broad criteria could divert money to technologies that “cannot be considered either safe or sustainable,” Germany said in a statement appended to the compromise text and also signed by Austria and Luxembourg.

The compromise ignored those concerns and tried instead to allay opposing fears of countries such as France, which relies on nuclear energy, and eastern European nations, which still depend on coal.

Oil CEOs push carbon-capture efforts ahead of climate talks



Reuters/New York

A group of 13 major oil companies charted out a plan yesterday to promote investments in carbon capture, use and storage (CCUS), ahead of a gathering in New York.

Oil chiefs grappling with growing demand for action to fight climate change have looked to invest in carbon-capture and sequestration techniques that some executives, including Occidental Petroleum Corp CEO Vicki Hollub, say could make drilling carbon neutral.

With fossil fuel development growing worldwide, the oil and gas industry faces growing criticism from activists concerned about accelerating climate impacts from melting ice caps to sea-level rise and extreme weather.

Scientists say the world needs to halve greenhouse gas emissions over the next decade to avoid catastrophic warming.

Carbon sequestration technology traps carbon in caverns or porous spaces underground.

A number of oil and gas CEOs say the technology will be crucial to meeting goals set in the 2016 Paris agreement on climate change to reduce global emissions.

“A lot of people don’t even know what CCUS is. I think the world is going to hear more and more and more about it,” BP plc CEO Bob Dudley said. “I don’t think we can meet the Paris goals without CCUS.”

The group, known as the Oil and Gas Climate Initiative (OGCI), said it aims to double the amount of carbon dioxide stored globally by 2030.

The group is also taking steps to reduce methane emissions.

The group formed in 2014 to support efforts to reduce greenhouse gas emissions.

Its gathering will be held on the sidelines of a climate summit, where United Nations Secretary-General Antonio Guterres says he is banking on new pledges from governments and businesses to abandon fossil fuels.

Last Friday, millions of young people flooded the streets of cities around the world to demand urgent steps to stop climate change.

Many, including 16-year-old Swedish activist Greta Thunberg, have criticised governments and industries for not doing enough.

The OGCI group said in a statement that carbon-capture

technologies could be expanded to more efficiently trap large amounts of carbon released by facilities such as power plants, which could then be used in oil recovery and, ultimately stored – thus, removing it from the atmosphere.
The group plans to work with others to put carbon-capture techniques into operation in the US, UK, Norway, the Netherlands, and China.
Later yesterday, , it was set to sign a declaration of collaboration with certain energy ministers and other stakeholders, to commit to efforts to expand carbon storage.
The companies, which include Exxon Mobil Corp, Chevron Corp and BP, account for 32% of global oil and gas production.
They have agreed to cooperate to accelerate reduction of greenhouse gas emissions.
Separately, almost 90 big companies in sectors from food to cement to telecommunications are pledging to slash greenhouse gas emissions, organisers said.

Coal may outlive climate change but can’t survive the drought

Bloomberg/Vienna

Asia's prolonged binge on coal is making the grids that transmit power to a third of the world's people brittle and prone to failure.

That's the conclusion of new research in the peer-reviewed journal Energy & Environmental Science.

More than 400 gigawatts of new coal-fired capacity in Asia are at risk as climate change dries out water sources necessary to cool those plants, according to the study.

"Coal power development can expect reduced reliability in many locations across Asia," Edward Byers, one of the report's authors, said by e-mail. "This is further evidence of coal power's increasingly recognised incompatibility with current international and national climate and sustainable development policy."

Summer heatwaves and reduced rainfall have been closing water-cooled power plants across the world as the impact of climate change exacerbates the nexus between water and energy supply. Asian utilities building coal plans could find themselves increasingly competing with industry and consumers for scarce water resources.

"This planned capacity adds 30% more to the existing coal-fired generation capacity, and will engender substantial water requirements and amounts of pollutants that can exacerbate global climate change and regional air pollution," the researchers wrote.

Thermal power generation could fall as much as 16% globally in the next three decades because of water shortages, they concluded. Researchers used hydrological and climate models as well as data from the Global Coal Plant Tracker to reach their conclusions. Different warming scenarios ranging to as high as 3 degrees Celsius (5.4 Fahrenheit) were considered. The world is currently on a warming trajectory that may hit 5 degree Celsius by the end of the century.

Bearish signal for crude as China closes in on filling oil storage

One of the fascinating tidbits to come to light in the wake of the attacks on Saudi Arabia’s crude facilities was China’s disclosure that it has enough oil inventories to last 80 days. There isn’t too much short-term significance in this, other than to confirm that China probably won’t be frantic to find replacements for any loss of imports from Saudi Arabia.

But the information is vitally important from a medium to longer term view of the crude oil markets.

China’s strategic petroleum reserve (SPR) is largely shrouded in mystery, with no official disclosure of the actual level of inventories in the world’s largest crude importer.

It likely surprised the market, however, that Beijing is quite close to the 90 days of import cover recommended by the International Energy Agency (IEA) as the level of reserves that importing nations should hold.

Earlier this year it was estimated by some analysts that China had around 40 to 50 days of import cover.

The figure of 80 days of crude oil in both commercial and strategic storage was released on Sept. 20 by Li Fulong, the head of development and planning at the National Energy Administration.

While Li didn’t disclose the exact amount of stored crude, it is likely to be around 788 million barrels, based on taking the average daily imports of 9.85 million barrels per day (bpd) for the first eight months of 2019.

The last time inventories were officially acknowledged was in December 2017, when it was disclosed that reserves as of end-June 2017 were 277 million barrels.

This implies that from July 2017 to Sept. 20 this year, China added 511 million barrels of crude, about 630,000 bpd.

It would also seem that the rate of stock building has been accelerating in 2019, if the difference between the total crude processed at China’s refineries and the amount of crude available from both imports and domestic output is calculated.

Domestic output in the first eight months of 2019 was 3.83 million bpd and imports were 9.85 million bpd, giving a combined total of 13.68 million bpd.

Refinery throughput for the same period was 12.74 million bpd, implying that about 940,000 bpd went into either commercial or strategic stocks.

If China does conclude its stockpiling at 90 days of import cover, the implication is that it has about 98.5 million barrels still to go.

At a 940,000 bpd rate, this further implies that the filling of China’s storage could be finished in about 105 days.

There is no guarantee, of course, that China will continue to build inventories at the same clip it has been, or indeed that it will stop at 90 days worth of import cover.

But the risk for the global crude market is that sometime in the next six months, and possibly earlier, China may dial back the amount of crude it is buying for storage.

Mining industry seeks to polish tarnished reputation

The global mining industry is increasingly showing a commitment towards greater respect for human rights and the environment, but is accused of wanting to improve its reputation without seeking real progress.

Wildcat miners, including children, are risking their lives daily to unearth metals and minerals they sell to mining companies. In return, they earn a subsistence wage but not the working rights of a legal and salaried mining group employee.

“While industry initiatives on certain minerals and metals are helpful, companies are still responsible for undertaking comprehensive human rights due diligence across all minerals and metals in their supply chains," Eniko Horvath, senior researcher at the Business and Human Rights Resource Centre (BHRRC), told AFP.

In June, dozens of illegal miners died when part of a copper mine collapsed in southeastern DR Congo. The mine was in the Kolwezi area operated by Kamoto Copper Company, a subsidiary of the Swiss giant Glencore.
Meanwhile at the start of the year, a dam collapse at a mine operated by Brazilian group Vale unleashed a tsunami of mud that killed more than 200 people while around 100 more went missing.

China, also the scene of fatal mining accidents, has additionally been in the spotlight for its dumping of toxic waste in Baotou, Inner Mongolia, as Beijing drives global production of rare earth elements used in key technologies such as smartphones.

Faced with rising criticism, the mining industry says it wants to adopt standards of good governance.

The London Metal Exchange, the global centre for trading in industrial metals, recently adopted new ethical standards to ensure better traceability of raw materials, especially those most at risk such as cobalt used heavily in high-end technology.

"As metals play an increasingly important role in society with increased focus on ethical supply chains, the LME's role and responsibility is vital," the exchange's incoming and first female chair Gay Huey Evans said on her appointment.

Earlier this month, the World Gold Council (WGC) issued "Responsible Gold Mining Principles", although the guidance is non-binding.

The industry body calls upon its members to "respect the human rights” of workers and communities affected by mining activities.

“We will work to ensure that fragile ecosystems, critical habitats and endangered species are protected from damage and we will plan for responsible mine closure,” according to another directive.

A spokesman for Barrick Gold, the world’s largest producer of the precious metal, told AFP that the group was already meeting or exceeding the new WGC guidance, while Glencore has laid out a similar charter to that provided by the World Gold Council.

Elsewhere, BMW along with German chemical giant BASF and Samsung last week announced a joint project to ensure “responsible” cobalt mining in DR Congo.

“It’s great to see these statements of purpose and expressions of a willingness to meet these standards, but they have to be matched with action,” Amnesty International official Lucy Graham told AFP.

“What we really want to see is laws that are going to legally require industry to mine minerals responsibly and transparently.”

Jamie Kneen, from MiningWatch Canada, said he believed companies and industry bodies were simply providing “yet another effort at PR whitewash”.

He added: “The standards that they are incorporating are… self-administered and audited by unaccountable third parties; and they are explicitly focused on providing confidence to investors and buyers with not even a mention of host or affected communities.”

Kneen said there was a need for “enforceable… legal and regulatory standards at all levels”.

To help companies face their responsibilities, human rights group BHRRC has this month launched a dedicated website, the Transition Minerals Tracker.

It “seeks to improve the human rights practices of companies that produce the minerals vital to the renewable energy and electric vehicles sectors, by shedding light on the key human rights risks in the geographies where they operate”, noted Horvath.

Tellurian signs $7.5bn agreement with India’s Petronet for US LNG

Tellurian Inc. said it signed a $7.5 billion agreement for

India’s Petronet LNG Ltd. to buy into its proposed liquefied natural gas terminal in Louisiana, in what could potentially be one of the largest foreign investments in the U.S. to ship shale gas abroad.

Petronet will spend $2.5 billion for an 18% equity stake in the $28 billion Driftwood LNG terminal — the largest outside holding so far in the project — and negotiate the purchase of 5 million tons of gas per annum. The remainder of the total will come from debt, Tellurian Chief Executive Officer Meg Gentle said.

The companies plan to complete the accord by March 31, by which time Tellurian hopes to have signed up partners to enable it to proceed with the project.

“We will sign the document sometime in the first quarter and we will have financing ready to close simultaneously, and then we will begin construction,” Gentle said in a telephone interview. “India is one of the fastest growth markets for LNG and should soon become the second-largest LNG importer.”

The deal, signed in Houston in the presence of Indian Prime Minister Narendra Modi, underscores a record year for the LNG industry, with tens of billions of dollars worth of export projects given the green light. The surge of new supply from America’s trove of shale gas has rendered the once-premium fuel accessible for emerging markets such as India, currently the sixth-largest buyer of U.S. LNG.

“People should not be surprised this came,” said Tellurian co-founder Charif Souki, who also started America’s largest LNG exporter Cheniere Energy Inc. “The United States and India have a significant issue diametrically opposed. We have too much gas that we don’t know what to do with and India needs greater gas, and 1 million tons a time is not going to solve the problem.”

The Petronet deal, the largest by an Indian company in U.S.

LNG, comes days after the gas industry's all-important GasTech conference and coincides with Modi's much-anticipated visit to Texas. He's set to take the podium at Houston's NRG Stadium with President Trump on Sunday and address a crowd of more than 50,000.

"This deal will further help diversify India's energy supplies," said Lydia Powell, who runs the Centre for Resources Management at the New Delhi-based Observer Research Foundation think tank. "The U.S. wants to displace Middle East supplies and India is a large market."

Petronet's investment is vying to be the largest by a foreign entity with one that Sempra Energy expects to finalize in Texas with Saudi Aramco.

Tellurian expects to finalize the last 4 million tons needed for Driftwood's first phase with one or two partners in the coming months, Gentle said. Petronet's share represents about $2 billion in annual fuel sales for the life of Driftwood, she said.

"It supports the drilling industry and the pipeline industry, and there is going to be an enormous amount of resources," Souki said.