

# The Rich World Must Take Responsibility for Its Carbon Footprint



China and other developing economies are instinctively wary of developed-country proposals to combine domestic carbon prices with “carbon tariffs” imposed on imported goods. But such policies may be the only way for rich-world consumers to take responsibility for their carbon footprint in other countries.

LONDON – The climate activist Greta Thunberg has accused developed economies of “creative carbon accounting” because their measures of greenhouse-gas (GHG) emissions, and of achieved and planned reductions, fail to consider the gases emitted when imported goods are produced in other countries. As Chinese officials quite rightly point out, about 15% of their country’s emissions result when goods are made in China but consumed in other, usually richer, economies.

China and other developing economies also are instinctively wary of developed-country proposals to combine domestic carbon prices with “carbon tariffs” imposed on imported goods. But

such policies may be the only way for rich-world consumers to take responsibility for their carbon footprint in other countries.

The “creative accounting” charge would be unfair if it were meant to imply deliberate concealment; the United Kingdom’s government, for example, publishes an easily accessible carbon-footprint report. But the figures certainly support Thunberg’s point. In 2016, the UK emitted 784 million tons of GHGs on a consumption basis, versus 468 million tons on a production basis. And from 1997-2016, the UK’s consumption-based emissions fell by only 10%, compared to a 35% decrease in production-related emissions.

Likewise, the European Union’s total consumption-based emissions are about 19% higher than those related to production. And while the United States’ gap of 8% is smaller in percentage terms, on a *tons-per-capita* basis it is just as large.

China is easily the biggest counterpart to this developed-economy gap, with consumption emissions of about 8.5 gigatons per year, versus ten gigatons on a production basis. And while China’s *per capita* emissions have already overtaken the UK’s on a production basis, it will be several years before the country’s *per capita* consumption footprint exceeds that of the UK.

So, if the developed world is serious about limiting potentially catastrophic climate change, it must take responsibility for emissions that its consumption generates abroad.

There are only two ways to do this. One is for the rich world to consume less. But although more responsible lifestyles – buying fewer clothes, cars, and electronic goods, or eating less red meat – should certainly play a role in making zero-carbon economies possible, such changes alone will not get us

close to zero emissions. Nor will they necessarily close the consumption-versus-production gap, because consumption of domestically produced goods could fall as much as that of imports. And reduced imports by developed countries mean reduced exports for poorer economies, creating challenges for economic development.

The alternative is to ensure that imported goods are produced in a low- and eventually zero-carbon fashion. The ideal policy to achieve this would be a globally agreed carbon price, which would encourage producers in all countries to adopt low- or zero-carbon technologies. Absent this ideal, there are now growing calls in Europe and the US for a second-best solution – domestic carbon prices imposed in particular countries plus “border carbon adjustments,” meaning carbon-related tariffs on imports from countries that do not impose an equivalent carbon price on their producers.

The immediate reaction of policymakers in China, India, and many other developing countries may be to condemn such policies as yet more protectionism in a world already destabilized by US President Donald Trump’s tariff wars. And anti-Chinese political rhetoric in the US – sometimes including the absurd accusation that China is an irresponsible polluter even though its *per capita* emissions are half those of the US – creates a difficult environment for rational policy assessment.

But in most industries, the combination of domestic carbon prices and border carbon tariffs poses no threat to the competitiveness and growth prospects of exporting companies in developing economies. Imagine that European steel producers were subject to a new carbon tax of €50 (\$54) per ton of CO<sub>2</sub> within Europe, which also applied to imports of steel from China or anywhere else. In that case, the relative competitive position of European and foreign steel producers seeking to serve European customers would be unchanged compared to the

no-tax starting point. And Chinese or Indian steelmakers, or companies in other high-emission sectors, are as well placed as their European or US peers to adopt new technologies that reduce the carbon content of their exports (and thus their liability to border carbon taxes).

Indeed, domestic carbon prices plus border adjustments are simply an alternative route to achieving the international level playing field that ideally would be secured through a global carbon price applied simultaneously in all countries. There is one crucial difference, though: if carbon taxes are imposed at the importing country's border, rather than within the exporting country, then the importing country gets to keep the tax revenue.

That fact increases the incentive for exporting countries to impose equivalent domestic carbon taxes, rather than leaving their companies to pay taxes at the importing country's borders. As a result, domestic carbon taxes with border adjustments could well prove to be an effective stepping-stone toward common global carbon prices, even if explicit international agreement on a global regime cannot be achieved.

Furthermore, such an approach suggests a potentially attractive way to encourage wider acceptance of border tariffs as being legitimate, necessary, and unthreatening. To be sure, the revenues from any carbon taxes levied on domestic producers should be used within the domestic economy – whether to support investment in low-carbon technologies or as a “carbon dividend” returned to citizens. But there is a good argument for channeling the revenues from carbon tariffs to overseas aid programs designed to help developing countries finance their transition to a zero-carbon economy.

Thoughtful developing-economy negotiators should argue for such revenue transfers, rather than opposing a policy that developed countries will have to deploy. After all, richer economies must not only drive down their own industrial

emissions, but also take responsibility for those that their consumption is generating elsewhere in the world.

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## **Gas demand in transport sector to rise 3.5% annually to 478bcm in 2050: GECF**



Gas demand in the transport sector has been forecast to rise at an annual pace of 3.5% over the GECF outlook period (until 2050), much faster than in other sectors, achieving about 478bcm in 2050. Transport utilisation will account for 8% of global gas consumption, Doha-based Gas Exporting Countries Forum (GECF) said in its latest outlook. In 2018, natural gas demand in the transport sector totaled 157bcm, constituting 4% of global gas consumption. Nearly 56% (87bcm) was related to the usage in pipeline transport, 44% to the road (58bcm) and

marine (11bcm) segments, GECF said in its 'Global gas outlook 2050' released in Doha recently. GECF forecasts show that this robust gas demand growth rate will be encouraged by important progress in natural gas vehicles (NGVs), partially through policy initiatives aimed at offsetting transportation emissions, which account for more than 24% of global GHG emissions. The International Maritime Organisation (IMO) regulations are also forecast to have an impact on gas demand in transport, as the maritime industry begins to switch to Liquefied natural gas (LNG). "In spite of the growing interest of gas applications in the railway industry, demand volumes in this segment are forecast to develop at a moderate pace, while road transport will drive consumption," GECF noted. About 214bcm of incremental gas volumes to 2050 are expected to stem from the development of the global NGV market. The use of LNG as a marine bunkering will be another promising area with additional consumption of 76bcm within the forecast horizon. Overall, global gas demand in the land and marine transport segments (excluding gas used in pipeline transport) is projected to rise by about 300bcm, from 70bcm in 2018 to over 370bcm by 2050. It will correspond to a growth rate of 5.4% per year, GECF noted. The increasing availability of natural gas, together with its economic and environmental advantages, make NGVs a very prominent alternative to diesel and gasoline-based engines in road transport. Liquefied petroleum gas (LPG) is also widely used across the world. However, being a mixture of propane and butane it is not as clean as natural gas, whose main chemical component is methane. Over the last decades natural gas, predominantly in the form of compressed natural gas (CNG), has made remarkable progress in various sub-markets – passenger buses, light commercial vehicles (LCVs) as well as heavy-good vehicles (HGVs) and special mining and haulage company trucks. Surging by almost 17% per year, natural gas demand in the road transport segment increased from 4bcm in 2000 to about 58bcm in 2018. Major contributions to this growth came from Asia Pacific (China, India, Pakistan) and the Middle East (particularly, Iran), while Latin America

countries (mainly, Argentina and Brazil) experienced moderate rise, staying around the same volumes from 2005 to 2018. In spite of the impressive growth rate, natural gas represents less than 2.5% of the total energy consumed in the global road transport market, which is currently dominated by oil-based products – gasoline and diesel – with a 96% share. As many countries are adjusting legislation to reduce the environmental impact of transportation modes and setting targets to mitigate air pollution, GECF anticipates that the role of methane in this segment will grow over the forecast period, assuming a higher uptake of NGVs and a corresponding level of gas demand. Favourable government policies and regulatory frameworks are expected to be the forces driving increasing penetration of natural gas in road transport. The natural gas share of energy demand in the global road transport market (estimated to grow from 2,154mn tonnes oil equivalent – Mtoe in 2018 to 2,420Mtoe by 2050) – is forecast to rise from 2.5% in 2018 to 10% by 2050, while petrol and diesel will go down from 96% to 83%. Over the same period, electricity use is projected to increase from 0.3% to 6%, a much more impressive growth. Given that EV penetration into all vehicle classes is underway, they are considered to be a more realistic option for the passenger, public transport and LCV segments, while the potential of NGVs could be much higher in the HGV segment, where transport costs are more vital. Moreover, environmental regulations are set to be stricter, propelling fuel replacement in oil-based products. In this context, GECF noted the future prospects of natural gas will be mostly concentrated in HGVs, driven by anticipated restrictions on the use of diesel trucks in a range of countries. The majority of gas demand is expected to come from LNG powered trucks thanks to their high annual mileage. It is worth mentioning that governments of more than 10 countries in 2017-2019 introduced forward-looking sales bans on new diesel or petrol vehicles for 2025-2040, which represents an additional push for gas usage, GECF said.

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# Asian LNG prices fall on declining Chinese demand



- \* Several cargoes trade below \$3 per mmBtu – sources
- \* Four Asia-bound LNG tankers divert destination – sources
- \* Fifteen LNG tankers floating cargoes at sea – Kpler (Updates to add graphic)

By Jessica Jaganathan

SINGAPORE, Feb 14 (Reuters) – Falling demand from China drove Asian spot prices for prompt deliveries of liquefied natural gas (LNG) to new lows this week of around \$2.70 per million British thermal units (mmBtu).

China's transport, commercial and industrial sectors have all



been affected by the fast-spreading coronavirus outbreak, traders said.

The average LNG price for March delivery into northeast Asia LNG-AS fell to \$2.70 per mmBtu this week, down 25 cents from the previous week, several industry sources said.

Prices for cargoes delivered in April are estimated to be \$2.80 per mmBtu, they added.

Several cargoes exchanged hands this week at below \$3 per mmBtu, traders said, indicating there was too much supply in the spot market.

Russia's Sakhalin 2 plant has sold a cargo for loading on March 16 to Japan's Mitsui at \$2.70 to \$2.80 per mmBtu, industry sources said.

Gail (India) bought a cargo for delivery into Dabhol, India, on a delivered ex-ship (DES) basis for Feb. 23 to 28 delivery at \$2.40 to \$2.50 per mmBtu, they said.

It separately sold a cargo from the Cove Point plant in the United States on a delivered ex-ship basis into Europe for a February to March delivery, and likely did not award another cargo it had offered for loading in April from Cove Point, one of the sources said.

India's Reliance bought a cargo for delivery into Hazira in March at \$2.50 per mmBtu, the sources added.

India's GSPC bought 7 cargoes for delivery over April to October at prices ranging from \$2.50 to \$3.30 per mmBtu, they said.

The spot deals for February to March are the lowest the cargoes have ever traded, traders said.

The coronavirus outbreak that started in China and has affected more than 60,000 people globally has had a wide

impact on LNG demand which had already been depressed from mild weather.

Four LNG tankers, including three Qatari vessels bound for North Asia, have changed destination or diverted after the coronavirus outbreak hit gas demand in China, sources said.

In addition, 15 LNG tankers are also flagged as “floating storage” globally, with 11 of them scattered across Asia, Rebecca Chia, LNG analyst with data intelligence firm Kpler told Reuters on Thursday.

Traders appear to have shrugged off cargo loading disruptions in Western Australia after a powerful cyclone that swept across parts of the region last weekend.

Supply was still ample with Angola LNG offering a cargo for March delivery, an industry source said. Colombia’s Calamari LNG is seeking late February delivery while Thailand’s PTT is seeking up to 2 cargoes, industry sources said.

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**Business must come clean quickly on climate: Carney**



LONDON, Feb 14 (Reuters) – Bank of England Governor Mark Carney called on the world’s businesses to publish strategies for cutting carbon emissions and adopting cleaner power sources by November, when world leaders meet in Scotland for U.N.-led climate talks.

“It’s not just green assets and divestment campaigns or certain things are so brown or black. Every company ultimately has to have a plan for a transition and what the opportunities are and where the risks are,” Carney said in an interview.

“For Glasgow that must be well on the path. That that is the norm. That the question doesn’t even have to be asked because companies are answering that question as part of their strategy.

“And the answer is, it’s the transition, stupid,” he said, referencing a phrase coined by former U.S. President Bill Clinton’s election strategist in reference to the U.S. economy.

Carney was speaking to Reuters a month before he leaves his

nearly seven-year posting at the helm of Britain's central bank to take a new role as the United Nations' envoy for climate.

The Canadian banker, who disarmed the British insurance industry in 2015 when, in a speech called "Tragedy of the Horizon," he warned of their exposure to climate-related events, has been one of the most vocal public figures to push for better supervision and disclosure of climate risk.

The Task Force on Climate-related Financial Disclosures (TCFD), which he launched in 2015, has become a global standard that more than 1,000 companies, financial firms, governments and other organizations have adhered to.

The intentions behind it also chime with a shift of emphasis by another leading central banker, European Central Bank President Christine Lagarde.

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Carney said November's COP26 climate talks would also be a good deadline for regulators to map out how to make the TCFD framework compulsory.

"One of the things we will look at ahead at for the COP26 is 'should we have pathways to make the TCFD mandatory?' Not overnight, but through listing requirements or securities regulation disclosure standards," he said.

Such an effort needs to be global, Carney said, encompassing regions laying out their own plans for cutting emissions. The European Union recently announced a 1-trillion-euro (\$1.08 trillion) effort become carbon neutral by 2050, a strategy that includes introducing a new climate law by next month.

"It would be productive if other jurisdictions that potentially will have mandatory disclosure standards... used more conventional routes than legislation, such as securities regulations or listing standards. Let's have that conversation," Carney said.

Carney could play an outsized role at November's summit, especially in view of a reshuffle of government and other senior positions by Prime Minister Boris Johnson.

Johnson last month sacked former energy minister Claire O'Neill from her role as president of the COP26 talks. Newly appointed Business Minister Alok Sharma was named to the position on Thursday.

Efforts by businesses, investors and financial institutions to disclose climate risk are gathering pace.

BlackRock BLK.N, the world's largest money manager with nearly \$7 trillion in assets under management, said this month that it would take a tougher view of companies that are not properly disclosing their climate risk.

This week, BP <BP.L> set out one of the oil sector's most

ambitious targets for curbing carbon emissions, saying it would reduce its greenhouse gas emissions to net zero by 2050. BP plans to give details later this year.

“Last week, very few people would have said BP was Paris-aligned,” said Carney, referring to the 2015 global climate agreement, signed in the French capital. “They’ve jumped from towards back of the queue to the front of the queue.”

(\$1 = 0.9225 euros)

(editing by John Stonestreet)

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## Landing a Blow Against Climate Change



For the last decade, bioenergy has been confined to the sidelines of climate-policy debates, owing to the environmental problems associated with its production. But recent innovations have made this option for supplying sustainable, renewable energy not just viable, but necessary.

BONN – In the face of climate change, providing reliable supplies of renewable energy to all who need it has become one of the biggest development challenges of our time. Meeting the international community's commitment to keep global warming below 1.5-2°C, relative to preindustrial levels, will require expanded use of bioenergy, carbon storage and capture, land-based mitigation strategies like reforestation, and other measures.

The problem is that these potential solutions tend to be discussed only at the margins of international policy circles, if at all. And yet experts estimate that the global carbon budget – the amount of additional carbon dioxide we can still emit without triggering potentially catastrophic climate change – will run out in a mere ten years. That means there is an urgent need to ramp up bioenergy and land-based mitigation options. We already have the science to do so, and the longer we delay, the greater the possibility that these methods will no longer be viable.

Renewable energy is the best option for averting the most destructive effects of climate change. For six of the last seven years, the global growth of renewable-energy capacity has outpaced that of non-renewables. But while solar and wind are blazing new trails, they still are not meeting global demand.

A decade ago, bioenergy was seen as the most likely candidate to close or at least reduce the supply gap. But its development has stalled for two major reasons. First, efforts to promote it had negative unintended consequences. The incentives used to scale it up led to the rapid conversion of invaluable virgin land. Tropical forests and other vital ecosystems were transformed into biofuel production zones, creating new threats of food insecurity, water scarcity, biodiversity loss, land degradation, and desertification.

In its *Special Report on Climate Change and Land* last August,

the Intergovernmental Panel on Climate Change showed that scale and context are the two most important factors to consider when assessing the costs and benefits of biofuel production. Large monocultural biofuel farms simply are not viable. But biofuel farms that are appropriately placed and fully integrated with other activities in the landscape can be sustained ecologically.

Equally important is the context in which biofuels are being produced – meaning the type of land being used, the variety of biofuel crops being grown, and the climate-management regimes that are in place. The costs associated with biofuel production are significantly reduced when it occurs on previously degraded land, or on land that has been freed up through improved agriculture or livestock management.

Under the 1.5°C warming scenario, an estimated 700 million hectares of land will be needed for bioenergy feedstocks. There are multiple ways to achieve this level of bioenergy production sustainably. For example, policies to reduce food waste could free up to 140 million additional hectares. And some portion of the two billion hectares of land that have been degraded in past decades could be restored.

The second reason that bioenergy stalled is that it, too, emits carbon. This challenge persists, because the process of carbon capture remains contentious. We simply do not know what long-term effects might follow from capturing carbon and compressing it into hard rock for storage underground. But academic researchers and the private sector are working on innovations to make the technology viable. Compressed carbon, for example, could be used as a building material, which would be a game changer if scaled up to industrial-level use.

Moreover, whereas traditional bioenergy feedstocks such as acacia, sugarcane, sweet sorghum, managed forests, and animal waste pose sustainability challenges, researchers at the University of Oxford are now experimenting with the more



water-efficient succulent plants. Again, succulents could be a game changer, particularly for dryland populations who have a lot of arid degraded land suitable for cultivation. Many of these communities desperately need energy, but would struggle to maintain solar and wind facilities, owing to the constant threat posed by dust and sandstorms.

In Garalo commune, Mali, for example, small-scale farmers are using 600 hectares previously allocated to water-guzzling cotton crops to supply jatropha oil to a hybrid power plant. And in Sweden, the total share of biomass used as fuel – most of it sourced from managed forests – reached 47% in 2017, according to Statistics Sweden. Successful models such as these can show us the way forward.

Ultimately, a reliable supply of energy is just as important as an adequate supply of productive land. That will be especially true in the coming decades, when the global population is expected to exceed 9.7 billion people. And yet, if global warming is allowed to reach 3°C, the ensuing climatic effects would make almost all land-based mitigation options useless.

That means we must act now to prevent the loss of vital land resources. We need stronger governance mechanisms to keep food, energy, and environmental needs in balance. Failing to unleash the full potential of the land-based mitigation options that are currently at our disposal would be an unforgiveable failure, imposing severe consequences on people who have contributed the least to climate change.

Bioenergy and land-based mitigation are not silver bullets. But they will buy us some time. As such, they must be part of the broader response to climate change. The next decade may be our last chance to get the land working for everyone.

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# Libya economic experts to study oil revenue sharing, says UN



Libyan economic experts will study the distribution of crucial oil revenue as efforts continue to solve the war-ravaged OPEC member's political crisis, the United Nations said.

The decision to assign the economic commission to work "on issues of immediate concern," which also include a banking crisis, came after meetings in Cairo this week attended by representatives from across Libya's political spectrum as well as economists and other academic experts. The experts agreed to meet again in early March, the UN mission in Libya said Tuesday in a statement.

The oil market had been closely monitoring the talks for any sign of a deal to restore output in the North African nation after supporters of eastern commander Khalifa Haftar forced

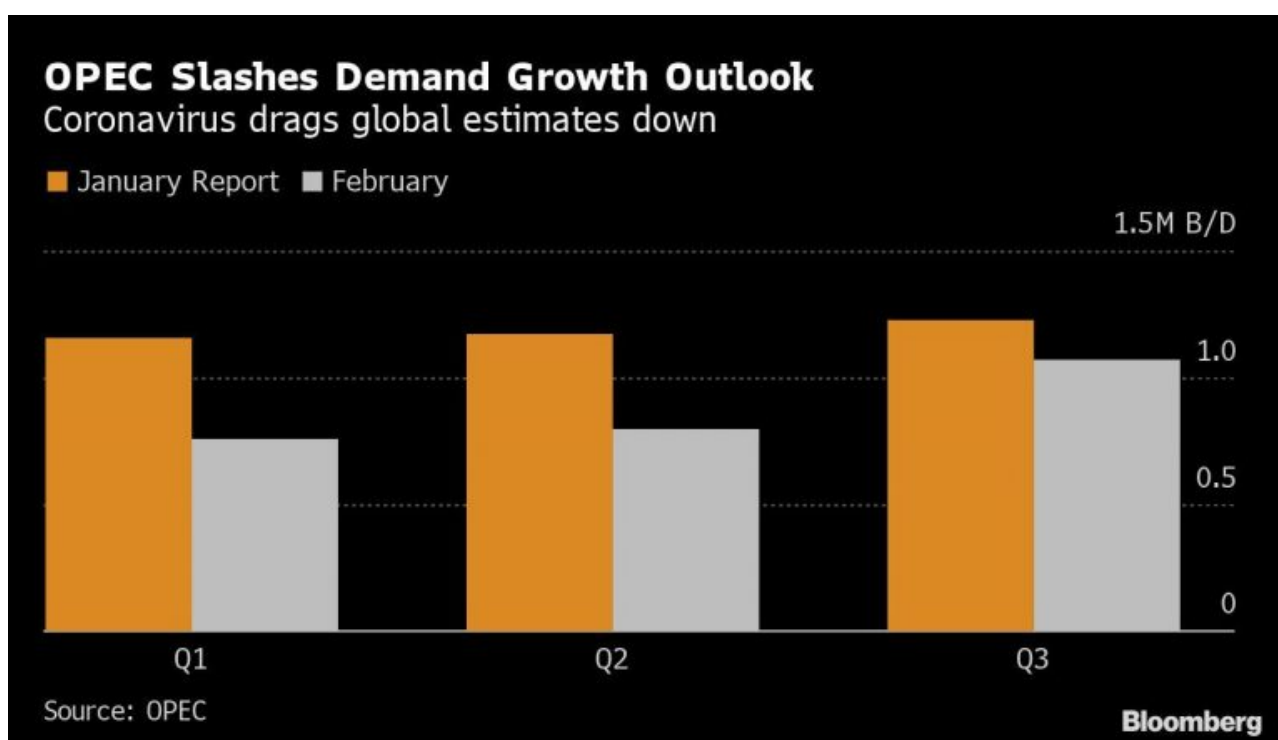
ports to close mid-January, driving daily output down to about 180,000 barrels, its lowest since the 2011 uprising against long-time leader Moammar Qaddafi.

Imminent large-scale resumption, although unlikely, could add over 1 million barrels per day to the international market, complicating OPEC's efforts to assess the impact of the coronavirus on demand.

The talks were the latest in a series of global efforts to end the conflict between the internationally recognized government in Tripoli and Haftar, whose forces control the oil-rich east and south and in April turned their sights on the capital.

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## Opec slashes oil demand forecast as virus threatens new glut



OPEC slashed forecasts for global oil demand as the coronavirus hits fuel use in China, leaving the group facing a renewed glut despite its recent production cuts.

The cartel reduced projections for demand growth in the first quarter by 440,000 barrels a day, or about a third, in its monthly report. Oil prices sank to a one-year low on Monday as the infection leaves businesses idle and millions quarantined in the world's biggest crude importer.

Oil's slump has spurred the Organization of Petroleum Exporting Countries' biggest exporter, Saudi Arabia, to press fellow members and allies to hold an emergency meeting and consider new output cutbacks. Yet the proposal has so far met resistance from Russia, the group's most important ally, which is able to weather lower prices more easily.

The report showed that, even though many OPEC members made a strong start with fresh output curbs that took effect last month, the virus' impact on consumption will leave them with a new overhang.

The group collectively pumped 28.86 million barrels a day in January, and if it maintains that rate there will be a surplus of 570,000 barrels a day during the second quarter, when consumption slows down seasonally. The monthly report is compiled by OPEC's Vienna-based research department.

OPEC doesn't see the effects of the disease confined to the start of the year, bringing down its growth estimate for global oil demand in 2020 as a whole by about 230,000 barrels a day to just under 1 million a day. Still, the increase remains slightly higher than last year's.

Though crude futures have recovered on speculation the spread of the disease could be nearing its peak, prices of about \$55 a barrel in London remain well below the levels most OPEC members need to cover government spending.

Since the producer group formed an alliance with non-members such as Russia three years ago, the coalition has restrained supplies to offset a surge of production from the U.S. shale industry, and keep prices supported. They embarked on a new round of cutbacks in January.

Last week, a committee of technical experts from the alliance, known as OPEC+, recommended reducing output by a further 600,000 barrels a day to offset the impact of the coronavirus. Russia, however, says it's "studying" the proposal and its energy minister, Alexander Novak, is consulting with oil companies today.

OPEC's latest outlook may encourage them to give greater consideration to taking additional measures.

"Clearly, the ongoing developments in China require continuous monitoring and assessment to gauge the implications," the report said.

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## **Permian gas-flaring is much worse than previously thought**



The burning and releasing of vast amounts of natural gas into the atmosphere in America's top shale basin is much bigger than previously thought when processing plants are included, Rystad Energy found.

Research on the controversial practices of flaring and venting – described by shale pioneer Scott Sheffield as a “black eye” for the Permian Basin – has typically focused on emissions by oil producers at the wellhead.

But gas-processing facilities in the region are receiving more gas than they can handle, so they burned off or released about 190 million cubic feet per day of the fuel last year, raising the total by 30% to roughly 810 million, data from Oslo-based Rystad shows. That's almost enough gas to supply 5 million U.S. homes.

“With the inclusion of estimates for gas plant-related flaring, we observe a significant increase in total Permian

flaring and venting compared to our previous update,” the consultancy said in a report.

The silhouette of an electric oil pump jack is seen near a flare at night in the oil fields surrounding Midland, Texas.

Flaring has become a major source of negative attention for Permian oil producers in Texas and New Mexico as concerns about greenhouse-gas emissions and climate change grow among consumers and investors. Permian drillers burn or release the gas that comes out of wells as an unwanted byproduct because they lack pipelines to send it where it’s needed.

Rystad, a leading provider of flaring and venting data, uses information from the U.S. Environmental Protection Agency, the Texas Railroad Commission, which regulates oil and gas in the state, and its own estimates.

Ryan Sitton, one of the regulator’s three commissioners, plans to release a first-of-its-kind report on flaring next week to give the public better information. The commission’s reporting has been criticized as “outdated” and “difficult-to-manipulate” by the Environmental Defense Fund.

The dearth of good-quality data means that total flaring volumes are likely underreported, according to Rystad. Of the Permian’s 50 smallest operators, only seven posted any flaring at all, meaning there are “obvious gaps” in the data, the consultancy said.

“This implies energy regulators might need to enforce better waste gas reporting standards to ensure that the market has sufficient fact-based visibility on the total volume of flared gas in the Permian,” Rystad said.

Texas regulators have come under pressure from environmentalists and some larger oil producers for allowing the industry to burn off gas at record levels in the Permian. While safer and cleaner than letting methane vent unchecked

into the air, flaring produces carbon dioxide and wastes a useful resource. Opponents say producers should not be allowed to flare at will, and should not be allowed to drill wells unless they have a plan for their gas.

[Click here for more on the commission's planned report](#)

The Texas Railroad Commission says the increased flaring is primarily a result of surging crude production in the basin. The amount of gas flared as a portion of total production in Texas is much lower than other major oil producers such as Russia or states like North Dakota, Sitton said last week.

Still, if the Permian were a country, it would have ranked ninth for total volume of flared gas in 2018, ahead of Mexico and Angola and just behind Libya.

Including processing plants, the Permian flares about 5.5% of its gas, down slightly from a year ago, Rystad said.

*– With assistance by Rachel Adams-Heard*

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**Why company carbon cuts  
should include 'scope' check**





When a company pledges to cut its carbon emissions, how big a deal is it? That depends on what's being counted. An oil company's direct emissions – those from its trucks, drills and facilities – are only a sliver of the carbon released when the fuel it sells is burned, and an airport vowing to use wind power for its runway lights is making a much smaller commitment than if its promise covered the flights that take off there. As more investors take environmental factors into account, what had been a technical debate is taking on increased importance, as a matter of “scope.”

## **1. What does scope mean?**

As the effort to boost green investment has grown, so have efforts to create metrics and standards for accounting and disclosure. Counting emissions isn't as simple as tracking what comes out of a smokestack. Under what's known as the Greenhouse Gas Protocol Standard, emissions are classed as Scope 1, 2 or 3. Scope 1 covers “direct emissions” – those from sources that are owned or controlled by a company, like those oil company trucks. Scope 2 covers emissions from the

generation of energy the company buys, such as electricity or heat. Scope 3 is everything else: the emissions that come from the entire value chain.

## **2. What does that mean?**

Scope 3 covers emissions from all of a company's non-energy inputs, like steel for a drilling rig or cement for its buildings, and from all the uses to which a company's products are put, like the fuel an oil company sells. It's the complete supply chain, which means that for almost all companies, Scope 3 is far bigger than the other two scopes combined.

## **3. What's the purpose of breaking it down this way?**

To add meaning to company pledges about becoming more climate friendly, and to give investors more objective measures for evaluating how a company or sector is doing on going green. The hope is that disclosure will give the market the opportunity to reward or pressure companies depending on their performance.

## **Calculating Carbon**

Oil companies' carbon footprints are mostly due to scope three emissions

## **4. Where did this approach come from?**

The first investor to measure the carbon footprint of a portfolio may have been Henderson Global Investors in 2005, but the idea gained momentum following the 2015 Paris Agreement on climate change, in which countries pledged to set specific targets for emissions cuts to slow down the threat of global warming. The Task Force on Climate-Related Financial

Disclosures, an industry-led group set up that year to encourage companies to put details about their environmental risks in the public domain. It encourages investors and executives to disclose the scope 1 and scope 2 emissions of their portfolios, and scope 3 “if appropriate.” (The task force was founded and is chaired by Michael R. Bloomberg, the majority owner of Bloomberg LP, the parent company of Bloomberg News.)

## **5. Is it working?**

To an extent. Some companies are beginning to clean up supply chains that they’ve left to their own devices for decades. They’re questioning how their raw materials are manufactured and, among other things, are moving to develop greener, cleaner ways of making steel or cement and transporting goods. Vestas Wind Systems A/S, the world’s largest maker of wind turbines, promised to eliminate all waste in the production of its machines by 2040 as part of its drive to hit carbon neutrality by the start of the next decade. Big emitters like Royal Dutch Shell Plc, BP Plc and Equinor ASA have committed to carbon-emissions targets that include Scope 3, that is, the end use of the products they sell, while Repsol SA pledged to eliminate all emissions from its operations and fuel sold to customers by 2050.

## **6. What kind of problems are there?**

Climate disclosure is voluntary, and among the companies that are making pledges on emissions, there are no requirements about what kind of scope needs to be covered. For instance, last year National Grid Plc, the U.K.’s power network operator, unveiled a plan to hit net zero emissions by 2050, but the plan only covered Scope 1 and 2, which together made up only 18% of emissions when Scope 3 was included.

## 7. Can that change?

Maybe. The Science-Based Targets Initiative, a non-profit group that encourages companies to set emissions targets based on the latest available scientific pathways, has said that if any member company's scope 3 emissions account for 40% or more of its total emissions, it should set a target covering scope 3. Companies also face growing pressure from asset owners, such as pension plans and sovereign wealth funds, as well as their employees, lawmakers and activists. Money managers from Amundi SA to BlackRock Inc have pledged to use their vast resources to combat climate change. Non-profits like CDP, a U.K.-based group, are pushing for increased transparency, working with thousands of companies around the world including Bloomberg to help them be more open and better understand their environmental impact.

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## **Norway vows to keep pumping gas as prices fall**



Europe's second-largest gas supplier plans to keep pumping natural gas even after prices dropped to their lowest in more than a decade. The region's benchmark slid 50% in the past year after a mild winter left inventories brimming and more cargoes of liquefied natural gas flooded the market. Yet that's not putting off Equinor ASA, the Norwegian state-owned producer, which delivers about a fifth of the European Union's pipeline gas imports. "If someone is hoping for supply relief coming from Norway, we will have to disappoint them," Tor Martin Anfinnsen, the state-owned company's senior vice-president for marketing and trading, said in an interview in Essen, Germany. "We will be the last ones to turn off the taps. We are far away from reducing flows." The unwillingness to cut flows may seem surprising, considering that Equinor is one of the most exposed oil companies to European and US spot

natural gas prices, according to Sanford C Bernstein & Co, which sees the company's gas earnings fall by about €300mn (\$326mn) in 2020 if prices don't change from current levels. But both Equinor and its larger Russian rival Gazprom PJSC may be focusing on preserving market share as competition heats among LNG suppliers. Equinor's gas production "is very cost-competitive," Anfinnsen said. The company said it continues its normal practice, which is to optimize prompt versus forward markets according to demand signals within the flexibility limits under its license permits. Norway's pipeline exports of natural gas to continental Europe and the UK fell to 107bn cubic meters in 2019 from 114bn cubic meters the year before as Equinor and other producers choose to hold back volumes amid the bad market conditions, according to Norwegian Petroleum Directorate. Benchmark next-month gas in the Netherlands has dropped to about €8.70 a megawatt-hour (\$2.75 a million British thermal units), the lowest since August 2009. Norway's marginal production cost is about €6 a megawatt-hour and Russia's is around €8, according to six traders and analysts consulted by Bloomberg since Tuesday at the E-World conference in Essen, Germany. "Even if prices achieve levels below Norway and Russia's marginal cost of production, these countries usually have long-term strategies for gas supply," Frank van Doorn, head of trading at Sweden's Vattenfall AB, said in an interview in Essen. "I am not sure if they would have a quick answer to low prices." Even the coronavirus may weigh down on European gas if more Chinese buyers declare force majeure on LNG supplies, leaving the potential for increased imports of the chilled fuel into the region, van Doorn said. "It is hard to find a bullish factor for natural gas right now," he said. "It can take more than two years until we see an upside move."