

World's \$1tn wealth fund weighs in on Amazon wildfire uproar

Norway's \$1tn sovereign wealth fund, the world's largest, is adding its clout to a growing number of asset managers across the globe scrutinising supply chains and businesses as wildfires rip through the Amazon. "We have had a focus on deforestation for several years and follow the ongoing serious situation," Carine Smith Ihenacho, chief corporate governance officer at Norges Bank Investment Management, said in an emailed comment. The wealth fund's chief governance officer said that she expects companies to have a strategy for reducing deforestation from their own activities and supply chains. In 2017, the fund initiated dialogue with companies that buy and sell soy and cattle products in Brazil, Ihenacho said. The Norwegian investor, which holds more than 9,000 companies around the world, has ratcheted up its work on ethics and sustainability over several years. It has taken steps to exclude or put companies under observation on a set of criteria, and it also engages directly in dialogue with companies to express its views. By the end of 2018, the fund had invested \$6.2bn in stocks in Brazil, and about \$2.8bn in bonds, according to a holdings overview on its website. "We have in previous years divested from one soy producer in this region due to links to unsustainable production and deforestation," Ihenacho said. Not only engaging directly with companies, the Norwegian fund has also taken initiative to talk to lenders to get a broader perspective on deforestation and financing, according to the governance officer. The fund engaged with banks in Brazil, Colombia, Indonesia and Malaysia last year, Ihenacho said, to understand how they monitor deforestation risk in their credit loan portfolios.

Brazil's neighbours are also burning, poisoning the Amazon



As the fires ravaging Brazil's Amazon stoke global outrage, its neighbours are also scorching, ripping up and poisoning their forests – largely under the radar.

Bolivia and Peru have seen faster growth in the number of fires this year than Brazil, as illegal miners, ranchers and cocaine producers continue to wreak havoc.

The 2.5mn square-mile Amazon is being attacked on all sides, with fires claiming an area equivalent to dozens of soccer pitches every hour in Brazil alone. At the deforestation rates seen in recent years, the whole forest will lose an area about the size of Virginia over the next decade according to Michael T Coe, senior scientist at the Woods Hole Research Center.

That's endangering an eco-system that not only hosts a vast and largely unknown share of the world's biodiversity but also helps regulate the continent's climate.

Fires have multiplied in Brazil as loggers and farmers, emboldened by President Jair Bolsonaro's disdain for environmental oversight, set ablaze land cleared earlier this year. Countries like Colombia, Peru and Bolivia aren't encouraging deforestation, but lack resources and political will to enforce existing regulations, according to Carolina Gil, an attorney for environmental protection group Amazon Conservation.

"The current crisis in Brazil is just the tip of the iceberg," Gil said.

Continued destruction threatens to turn dense forests into scrub-land covered in shrubs and weeds, she added, wrecking a region which provides a home to tens of thousands of animal and plant species, and roughly one-fifth of the world's fresh water.

Colombia, which has the largest swath of the Amazon after Brazil and Peru, lost 530,400 acres (215,000 hectares) of the rainforest in 2017, according to satellite data monitored by Amazon Conservation. Brazil, which has about six times as much of the jungle, has been losing about 1.58mn acres a year.

Meanwhile, cultivation of coca plants, the raw material for cocaine, more than quadrupled in Colombia between 2012 and 2017. Farmers often slash down forest in national parks to plant illegal crops in remote parts of the country where the government's presence is weak or non-existent.

Mercury used by informal gold miners also continually seeps into the rivers in Colombia's Amazon, poisoning fish.

Colombia's environment ministry didn't reply to a written request for comment.

Brazil has experienced more than 83,000 fires so far this year, up 77% from the same period last year, according to the country's National Institute for Space Research, known as Inpe. Meanwhile, Bolivia and Peru have seen their number of fires roughly double during the same period.

In Bolivia, where nearly 19,000 fires have destroyed more than 1mn acres of forest this year, left-wing President Evo Morales has mobilized firefighters and used a Boeing 747 Supertanker to fight the blazes.

Bolivia's environment ministry and presidential press office did not return phone calls and emails seeking comment. Morales on Sunday said he was open to international help to put out fires and called for a summit between countries that make up the Amazon to "coordinate immediate actions and long-term plans," according to a statement.

Peru's environment ministry didn't reply to an email seeking

comment.

Brazil's neighbours don't share Bolsonaro's belligerence, or hostility to environmental protection, but their record isn't much better, said Rodrigo Botero, director for the Foundation for Conservation and Sustainable Development in Colombia.

"You can see across the region that the pressures in countries like Bolivia, which is suffering huge losses, or Paraguay are the same as in Brazil," he said. "It's not a question of left or right."

The Slow Greening of Finance



Aug 28, 2019 ANDREW HIGHAM

Although the world is not reducing greenhouse-gas emissions to the extent needed to limit catastrophic global warming, major financial players are finally starting to make the shift away from fossil fuels. With recent divestment decisions now rippling across economies, hope of achieving a carbon-free energy future is not lost.

OXFORD – Some of the most influential players in the global economy are spearheading the shift toward a clean, green, emissions-free world, even while key governments stand idle. Financial giants from Europe, China, Japan, the United States, Australia, and elsewhere can see the looming risks and rewards, and they are not waiting on policymakers to signal what needs to be done. By setting immediate bans on new fossil-fuel investments, labeling clean and dirty energy producers, and dumping unappealing stocks, the financial industry is redirecting huge flows of money from fossil fuels to low-carbon technology.

Such decisions can ripple across economies. Consider, for example, the split between state and private energy finance in India. According to the Delhi-based Centre for Financial Accountability, primary finance for coal-fired power plants dropped by 93% between 2017 and 2018, while finance for renewables rose by 10%. Among the loans for coal projects in 2018, most came from government-controlled financial institutions, whereas three-quarters of renewables financing came from private commercial banks.

Similarly, banks and traders in Japan are abandoning coal projects in favor of renewables, even though the government has resisted setting a phase-out date for coal-powered energy. Three Japanese coal-plant projects have been canceled or delayed this year. And at the global level, the International Energy Agency (IEA) reports that investments in coal-power plants hit a century low in 2018, while more coal generators were retired.

This trend will become more pronounced as the number of financial firms shifting from fossil fuels continues to grow. Consider the headlines since March. Norway's sovereign wealth fund has won parliamentary approval to divest \$13 billion from fossil-fuel stocks, as part of the largest fossil-fuel selloff to date. Japan's Mitsubishi UFJ Financial Group, one of the world's largest banks in terms of assets, ceased

financing new coal-fired power projects. And Chubb became the first major US insurer to announce a ban on coal coverage, while Suncorp became the last Australian insurer to end coverage for new coal-mining and coal-power projects.

Moreover, the London Stock Exchange has recategorized oil and gas stocks as “non-renewable energy” and classified green-energy stocks as “renewable” instead of “alternative.” And the world’s largest investor in overseas coal projects, the Oversea-Chinese Banking Corporation, said it would end financing for coal-power plants (once it finishes two final projects in Vietnam), while China’s State Development & Investment Corporation announced plans to stop investing in new coal-fired plants and focus on new energy sources.

More broadly, the Investor Agenda for a low-carbon world has attracted 477 signatories, representing around \$34 trillion in assets under management. These investors are calling on governments not just to limit rising temperatures, but also to meet the Paris climate agreement’s more difficult goal of limiting global warming to 1.5°C above pre-industrial levels.

Meanwhile, the Institute for Energy Economics and Financial Analysis has found that those who ignored climate-change warnings have already taken a financial hit. BlackRock, the world’s largest fund manager, lost around \$90 billion over the last decade, three-quarters of which was due to its holdings in ExxonMobil, Chevron, Shell, and BP. And investors in General Electric, including BlackRock, lost a whopping \$193 billion in the three years leading up to 2018, because the company misjudged the pace of the shift to green energy and the collapse in demand for gas turbines and thermal power stations.

Although the shift away from fossil fuels is already monumental, a potential tsunami awaits. Those divesting from fossil fuels are the early adopters who have sensed a change in wind direction and readjusted their sails. But far more

needs to be done. Because those firms' competitors have yet to take any steps toward divestment, trillions of dollars in carbon assets remain on investors' balance sheets.

Moreover, according to the IEA, while coal investments have fallen, capital spending on oil, gas, and coal nonetheless bounced back in 2018, and investment in energy efficiency and renewables stalled. Worse, the consultancy Wood Mackenzie finds that the renewables boom has translated into only 2% of global energy demand. As matters stand, coal, oil, and gas could still supply 85% of primary energy by 2040, down only slightly from 90% today.

To complete the transition away from fossil fuels will require drilling down to the core of the global economy. It does not help that financial institutions in China funneled at least \$1 billion in "green" financing to coal-related projects in the first half of this year. Companies cannot keep producing oil, gas, and internal combustion engines while gradually shifting to cleaner technologies; they need to make a clean break.

Moreover, financiers need to look beyond coal and withdraw support for all fossil fuels. Equally important, governments must set an ambitious trajectory for their economies that impels adherence to the 1.5°C limit on warming. Our current path will lead to warming of 3°C or more, which would have catastrophic consequences.

The United Nations Climate Action Summit on September 23 offers the opportunity for financial institutions and governments to do what is necessary. Secretary-General António Guterres has called for gold-standard leadership, in the form of government and private-sector commitments to slash emissions to net zero, with interim targets every five years.

Guterres's call to action is echoed by all who have been demonstrating and striking for the same goal. Investors need to rise to the occasion, by structuring portfolios in such a

way as to achieve net-zero emissions by 2050. That means pushing the companies in their portfolios to change, too, or risk being cut off and left behind. But setting long-term aspirations won't be enough. Actionable steps for the coming months and years must accompany the commitments made today, to ensure that progress remains on track.

To that end, Mission 2020 is collecting stories of progress from across the global economy. Our 2020 Climate Progress Tracker Tool, an open-access database, is updated regularly with climate commitments by countries, businesses, cities, and others. The bigger the divestment movement grows, the harder it will be to hide in the shadows, clinging to the past.

**Can power napping solve
electric car charging
challenge?**



TUTTIGART, Germany (Reuters) – Automakers around the world are pushing hard for new networks that can charge electric cars fast. In Europe, some power companies and grid operators are testing whether it might be smarter and cheaper to move into the slow lane.

A 15-month study of electric car charging behavior in Germany has concluded that consumers can be persuaded to accept slow, overnight recharging that could help avoid brownouts from surges in electricity demand or costly upgrades to power grids.

The prospect of millions of EVs hitting the roads as governments gradually ban new diesel and gasoline cars is seen as a major challenge for power companies, especially in Germany which is switching from nuclear and coal to less predictable sources of energy such as wind and solar.

The small study in the wealthy Stuttgart suburb of Ostfildern-Ruit though has helped alleviate the concerns of some grid operators that too many electric vehicles (EVs) charging at

peak times could cause network crashes.

The engineers at Netze BW, the local grid operator behind the trial, found that all the households involved came around to leaving their electric cars plugged in overnight and only half ever charged simultaneously.

“Since the experience with the project we have become a lot more relaxed. We can imagine that, in future, half of the inhabitants of such a street own electric vehicles,” said Netze BW engineer Selma Lossau, project manager for the study.

Still, with limited EV battery ranges for now, slow, overnight charging doesn’t get around the problem of how to persuade drivers to ditch petrol cars altogether.

Without a network of fast-charging stations offering quick refueling, drivers may be wary of using EVs for long trips – which is why some automakers want lots of fast-charging stations to encourage the widespread adoption of electric cars.

‘CHANGED MY OUTLOOK’

Slower, or delayed, charging has already gained traction in Norway, Europe’s leading EV market, where nearly 50% of new car sales are zero-emission vehicles.

A study by energy regulator NVE showed that Norway faces a bill of 11 billion crowns (\$1.2 billion) over the next 20 years for low- and high-voltage grids, substations and high-voltage transformers – unless it can persuade car owners to charge outside peak afternoon hours.

The investment cost to the country of 5.3 million people could drop to just over 4 billion crowns if cars are charged in the evening, and may fall close to zero if batteries are only plugged in at night, NVE said.

NVE is now working a tariff proposal which will penalize peak-hours charging. Tibber, a Norwegian power company, already offers cheaper electricity for EV charging if you let it decide when your car is charged while firms such as ZAPTEC offer ways to adjust charging to the available grid capacity.

Some of the 10 households participating in the Stuttgart trial said they initially wanted to keep topping up their cars for fear of running out of juice, but soon adapted to leaving the power company to handle it as it saw fit overnight.

An electric car parks next to a charging station in Ostfildern near Stuttgart, Germany, August 19, 2019. Picture taken August 19, 2019. REUTERS/Ralph Orlowski

"At the start, I did not want to take any risks and charged frequently in order to feel secure. Over time, I changed my outlook," said Norbert Simianer, a retired head teacher who drove a Renault Zoe during the trial. "I grew used to the car and became more at ease in handling the loading process."

Simianer and his neighbors were given electric cars and 22 kilowatt (kW) wall-boxes for their garages, alongside two charging points in the street, all free of charge.

In return, they gave up their normal cars and allowed Netze BW, which is a subsidiary of German utility EnBW (EBKG.DE), to monitor and carry out a deferred and down-scaled charging process during a seven-and-a-half-hour period overnight.

Netze BW tried various options, either slotting cars in at the maximum 22 kW charging flow one after another, or lengthening the charging time for individual cars by adjusting the power flow, or combining both methods, Lossau said.

The participants, who used apps to check the status of their car batteries, grew accustomed to the lack of instant charging capability because their vehicles could always handle their everyday commutes of up to 50 km (31 miles).

EnBW said nine of the 10 households in the trial on Ostfildern-Ruit's Belchenstrasse had opted to keep the wall-boxes and most were exploring leasing electric car.

TWO-WAY STREET

Lossau said monitoring 10 households did not in itself provide the "empirical mass to draw conclusions for the load profile of all of Germany".

She also said there would need to be better two-way communication between EVs, the grid and consumers for the system to function efficiently on a large scale.

"There will have to be more exchange of information between e-cars and the grid to update the loading status in real-time, because otherwise, there can be the wrong impression about the speed of loading," she said.

Utility companies developing so-called vehicle-to-grid (V2G) services, however, are struggling to persuade some automakers to use technology that allows two-way flows of information, and power, between batteries and grids.

Carmakers such as Volkswagen (VOWG_p.DE), Daimler (DAIGN.DE) and Ford (F.N), for example, are prioritizing one-directional fast-charging instead to overcome consumer resistance to EVs.

Japan's Nissan (7201.T) has been leading the way among carmakers exploring V2G though Germany's BMW (BMWG.DE) has now decided to develop it too, saying cooperation between cars and grids will be key to making e-mobility ready for mass markets.

"It is about making sure there is enough supply for the electric cars and that the lights do not go out elsewhere," a BMW spokesman said. "The cars don't just load when it's best for the market, but they can also supply power back to the grid to help even out demand spikes."

"There has to be more progress on the data exchanges, however.

It is not yet the standard," he said.

Nevertheless, the Ostfildern-Ruit trial has raised hopes that power grids might be able to cope with an influx of electric cars, especially if the consumers play ball.

Even if drivers resist overnight charging, suppliers of software and equipment to power grids, such as Germany's Siemens (SIEGn.DE), are also looking at safer and more efficient ways to manage how and when power is used to charge cars.

MORE DATA PLEASE

The German city of Hamburg, for example, started a three-year pilot project this month with Siemens to pre-emptively identify overloads on transformers and along cables, and manage EV charging points accordingly.

"Loading processes offer so much flexibility that the overload on the networks can be reduced by deferring loading times or reducing the load that is supplied," said Thomas Werner, expert at Siemens Digital Grid.

"This happens through the digitization of hardware and software and with communication technology," he said.

Using software to help protect aging power networks from predictable surges could also avoid costly hardware upgrades to parts of the 1.7 million km of distribution grids in Germany.

With few than 100,000 electric-only cars in Germany at the moment, there is little threat of blackouts from over-demand. But the Transport Ministry in Berlin envisages up to 10 million electric cars on the roads by 2030.

The number of charging points across the country also only stands at 21,000. That's up 50% over the last year but still

barely a fraction of future needs.

Next up for Netze BW is a trickier test.

Managing the power for 10 households with electric cars in a suburban street of 22 homes is one thing, now the power company is launching a study of car charging behavior in an apartment block with 80 flats, where quarrels over access are likely.

It is also looking at a study in rural areas, where the longer cables required present challenges in maintaining stable voltages for charging.

But that's still only part of the story. Lossau said power companies would have to work more closely with carmakers to fill knowledge gaps and exchange information.

"It can only work if we get more data from each other."

Additional reporting by Lefteris Karagiannopoulos in Oslo;
editing by David Clarke

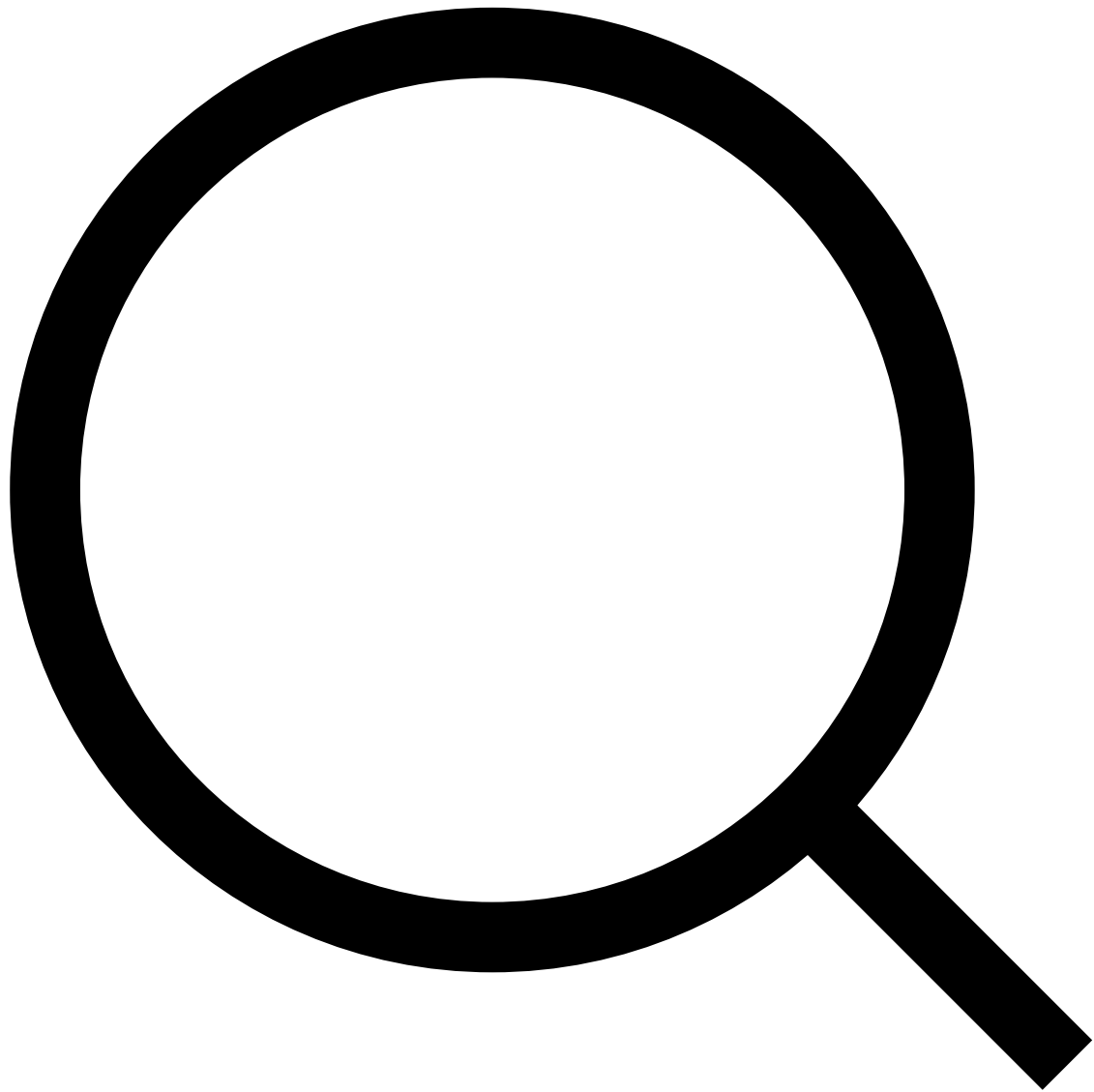
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**High above Greenland
glaciers, NASA looks into
melting ocean ice**



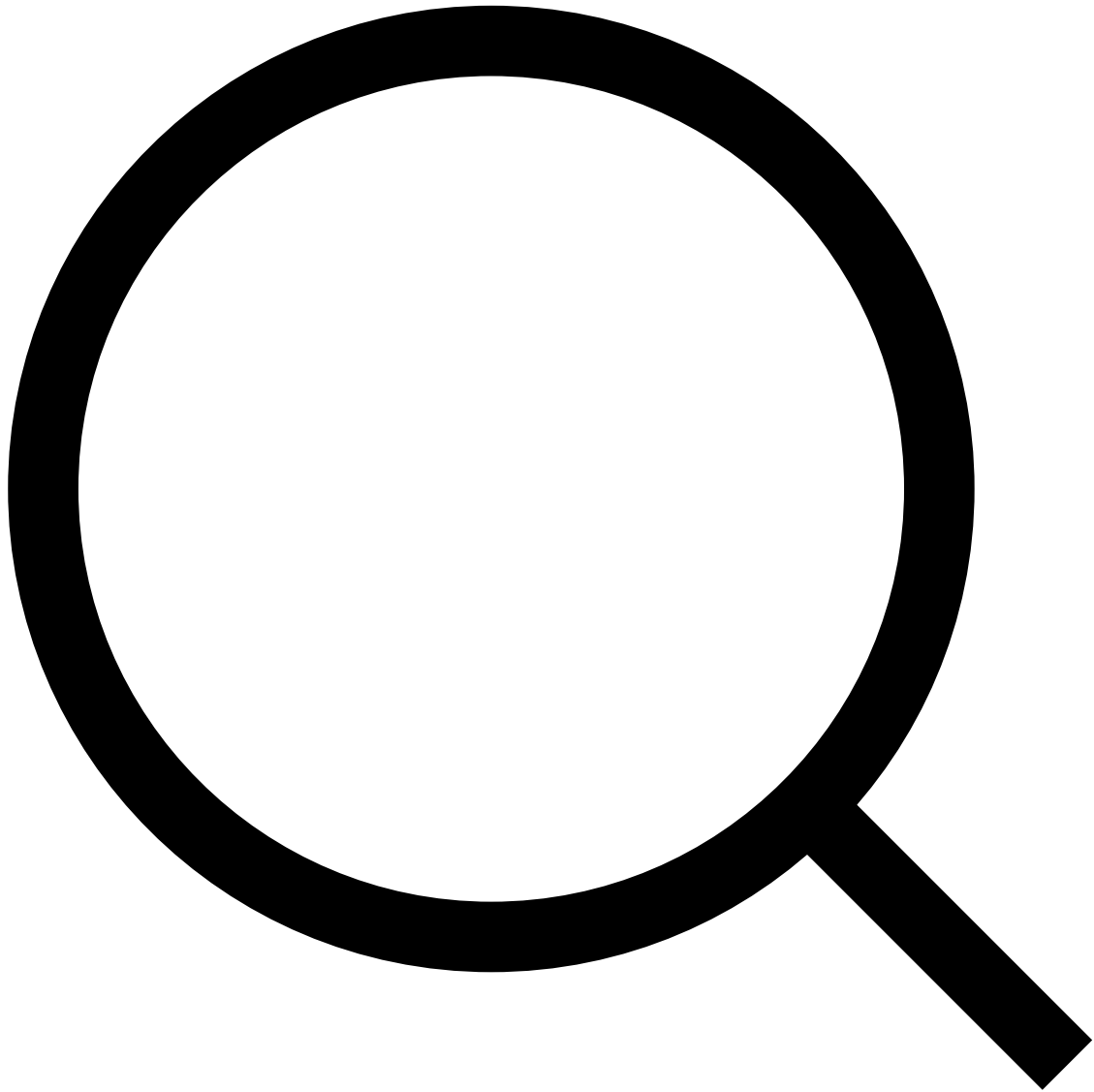
Skimming low over the gleaming white glaciers on Greenland's coast in a modified 1940s plane, three NASA scientists, led by an Elvis-impersonating oceanographer, waited to drop a probe into the water beneath them.

They are part of Oceans Melting Greenland – or OMG – a mission that has flown around the vast island for four summers, dropping probes to collect data on how oceans contribute to the rapid melt of Greenland's ice.



Willis is investigating how warmer layers of water off the coast come into contact with glaciers.

Dressed in a blue jumpsuit and with thick sideburns that give a hint of his occasional pastime impersonating Elvis, Joshua Willis, 44, is the oceanographer from NASA's Jet Propulsion Laboratory behind the project – and, along with his wife, its name.

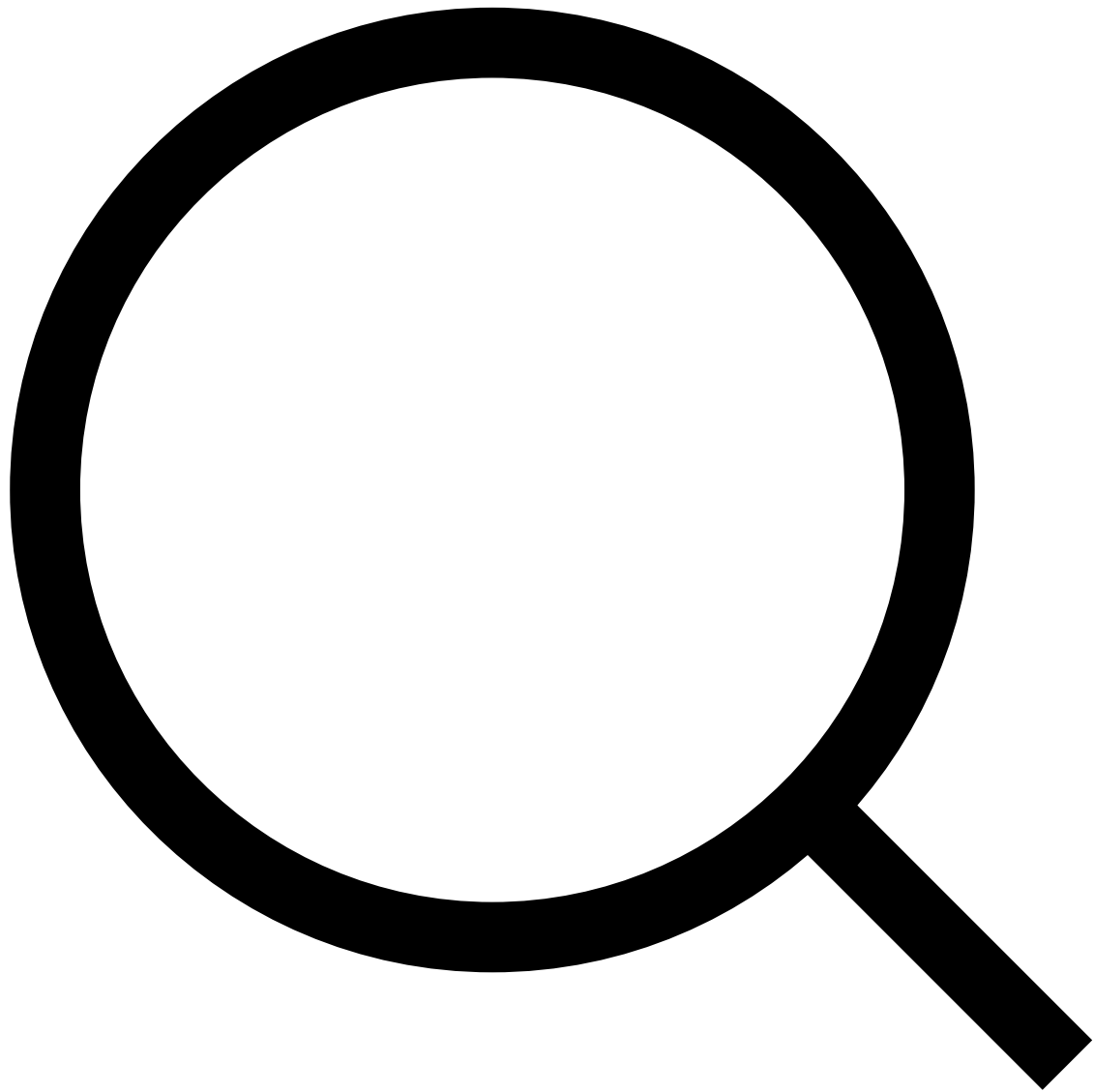


Three NASA scientists drop probes into the Arctic to measure the impact of the oceans on ice melt.

'Ice cube under a hair dryer'

Willis is investigating how warmer layers of water off the coast come into contact with glaciers and how this effects how quickly they melt.

"A lot of people think of the ice here as melting from the air warming, sort of like an ice cube under a hair dryer, but in fact the oceans are also eating away at the ice's edges," Willis said.

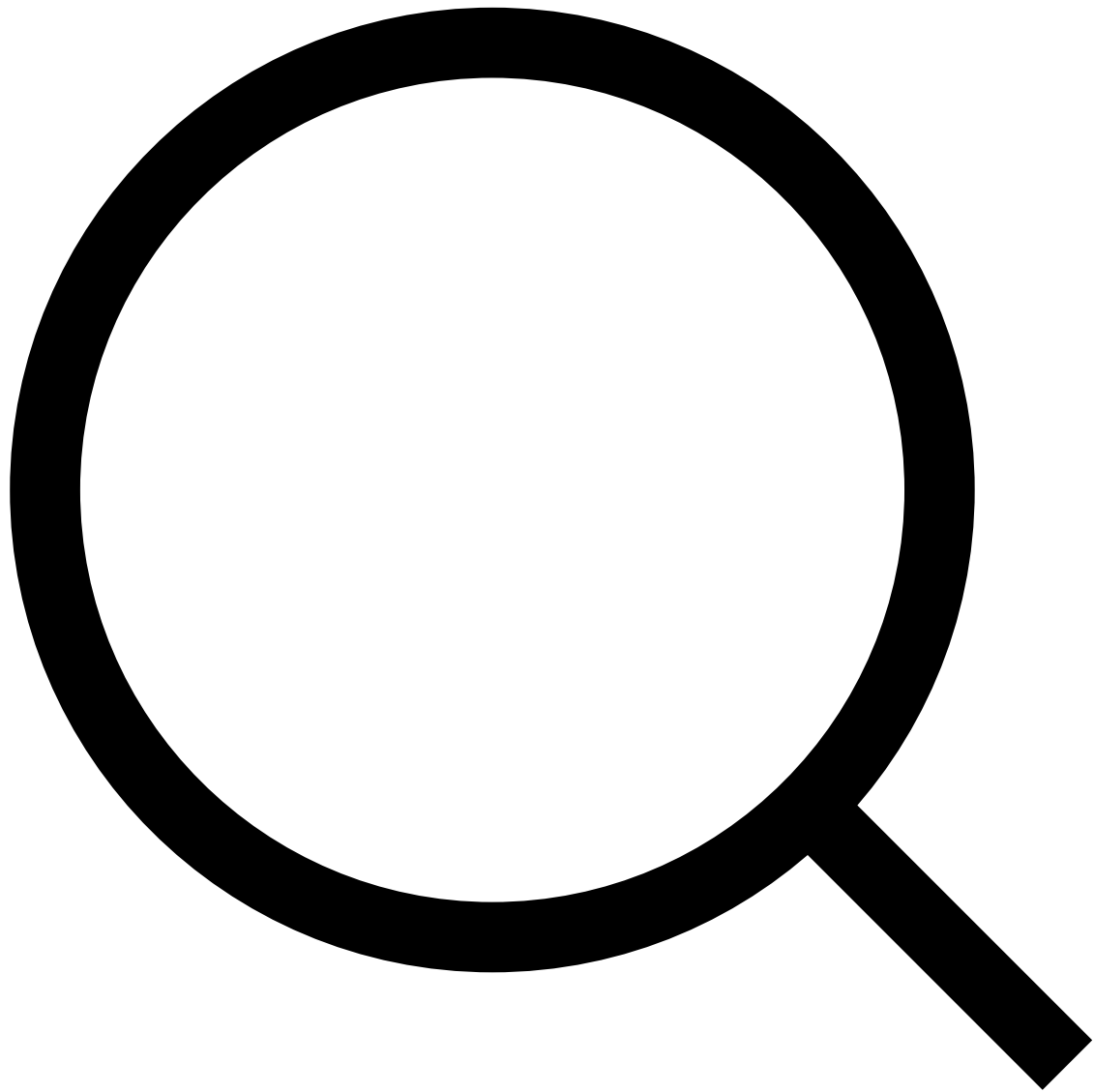


The scientists are part of Oceans Melting Greenland or OMG.

OMG surveys Greenlandic glaciers in the winter, comparing it with the data they collect about the oceans in the summer over a five-year period, which Willis hopes will allow researchers to better predict sea-level rise.

Greenland ‘a challenge’

NASA – best known for the moon landings and space travel – started to study the earth’s climate in greater depth from the 1970s when its inter-planetary exploration budget was reduced, using its satellites to look at the earth.



With OMG, Willis hopes they can provide data to give better predictions of sea-level rise.

Today it has more than a dozen satellites in orbit monitoring earth's seas, ice, land and atmosphere, along with missions like OMG, which Willis hopes will provide data to give better predictions of sea-level rise around the globe.

Agence France-Presse

Opec+ expects to drain oil stocks as it makes supersized cut



Opec and its allies expect to deplete the global surplus in oil stockpiles sharply as demand holds up and the coalition cuts production by far more than initially planned.

Saudi Arabia, Russia and other producers in the Opec+ alliance have slashed crude output this year to shrink the glut amid faltering economic growth and soaring US shale output. Results have been mixed, with oil prices down more than 20% from this year's peak, trading at about \$59 a barrel in London.

In response, Saudi has reduced output by far more than pledged under the terms of the deal, and the coalition's overall implementation rate last month was 59% above target, according to a statement posted on its website yesterday. That means the alliance cut supplies by about 1.9mn barrels a day.

Opec signaled that the deeper-than-anticipated cutbacks had been necessary because of the extreme upheaval in the global economy.

"This high level of overall conformity has offset uncertainty in the market due to ongoing economic-growth worries," according to the statement from the Joint Ministerial Monitoring Committee, a body set up by Opec and its allies to oversee implementation of their strategy.

“Along with healthy oil demand,” the supply restraints have “arrested global oil-inventories growth and should lead to significant draws in the second half of the year,” the committee said.

World financial markets have been buffeted this year as the US and China become ever more entangled in a trade dispute that’s weighing on growth in both nations, the two biggest oil consumers.

Collectively, the 24 countries in the Opec+ coalition – comprising the 14 nations of the Organisation of Petroleum Exporting Countries and 10 non-members – pump about half of the world’s oil.

The burden for going the extra mile, however, has rested almost entirely on Saudi Arabia, the biggest Opec member. The kingdom reported that it lowered output to 9.58mn barrels a day in July, which means it’s cutting more than twice as much as agreed.

The JMMC will meet to review the strategy on September 12 in Abu Dhabi, and then the full coalition will gather in December to consider any measures for next year.

The committee said that forecasts by major institutions are for “robust” oil-market fundamentals for the rest of this year and 2020.

While it is the case that leading organisations like the International Energy Agency see world oil demand continuing to grow next year in line with recent trends, expectations for another surge in supply create a fragile outlook.

Both the IEA and Opec itself expect that oil supplies, driven by the US, will expand by roughly twice as much as the growth in consumption next year.



Qatar Petroleum signs deals with Total to enter exploration blocks in Namibia



Qatar Petroleum has entered into agreements with Total for a share of exploration and production rights in two blocks offshore the Republic of Namibia.

Under the agreements, which are subject to customary regulatory approvals by the government of Namibia and approvals by the partners in the blocks, QP will hold a 30% participating interest in Block 2913B, with Total (the Operator) holding a 40% participating interest.

The other partners in the block are Impact Oil (20%), and Namcor (10%). A first exploration well is scheduled to be drilled in the first half of next year.



Also under the agreements, QP will hold a 28.33% participating interest in Block 2912, with Total (the Operator) holding a 37.78% participating interest. The other partners in the block

are Impact Oil (18.89%) and Namcor (15%).

On the agreements, HE the Minister of State for Energy Affairs Saad bin Sherida al-Kaabi, also the president and CEO of QP, said, "We are pleased to expand our global exploration activities into Namibia, which further strengthens our presence in Africa. Working on these prospective frontier blocks with our valuable long-term partner, Total, will give another boost to our efforts towards implementing our international growth strategy."

Al-Kaabi added, "We look forward to working together with the Namibian Government and with our partners in these blocks to achieve positive results that meet the interests of all parties."

Blocks 2913B and 2912 sit adjacent to one another offshore Namibia. Block 2913B is 2,600-3,300 metres deep with an area of about 8,215 square kilometres, while Block 2912 is 3,300-3,800 metres deep with an area of about 7,813 square kilometres.

Greece fully lifts capital controls imposed during bailout chaos – PM



PM@ (Updates with statement on lifting)

ATHENS, Aug 26 (Reuters) – Greece is set to fully lift remaining capital controls, Prime Minister Kyriakos Mitsotakis said in parliament on Monday.

“From today, capital controls are a thing of the past,” Mitsotakis told lawmakers.

Athens imposed capital controls in June 2015, when Greece’s government had come to the end of its bailout extension period without agreeing on a further extension with its creditors.

The restrictions have been gradually eased since then. The cap on cash withdrawals was fully lifted in October 2018. But limits on money transfers abroad still remained. The newly elected conservative government has been keen to move swiftly to reassure markets that it intends to adopt business-friendly policies to attract investment, key to boost Greece’s economic recovery.

Athens had imposed the capital controls as Greece was embroiled in dispute with its lenders over bailout terms and

its banks were bleeding cash.

At the time, the European Central Bank decided to pull the plug on emergency funding to Greek lenders, forcing a three week shutdown of banks and a 60 euro per day cap on cash machine withdrawals.

Finance Minister Christos Staikouras told lawmakers he would submit legislation to fully lift the restrictions effective Sept. 1. (Reporting by George Georgiopoulos; Editing by Alison Williams)

Kuwait fans out to Australia and Canada in global gas push



Bloomberg/Kuwait

Kuwait plans to boost production from Canadian shale deposits by two thirds and increase output of natural gas in Australia

as the Opec member ramps up efforts to find and develop overseas deposits of the fuel.

The international upstream arm of state-owned Kuwait Petroleum Corp sees output of almost 20,000 barrels of oil equivalent a day at its Canadian shale gas project by year-end, up from 12,000 currently, Sheikh Nawaf Saud al-Sabah, acting chief executive officer, said in a recent interview in Kuwait City.

"It will rise to about 60,000 or so once we fully develop it, which will be in the mid-2020s," he said. "We're just beginning to understand its potential."

In Australia, the company known as Kufpec won exploration rights to three new blocks in February and April. It's producing almost 40,000 barrels of oil equivalent a day in that country and aims to raise output and produce more liquefied natural gas for export, al-Sabah said, without specifying targets. Kuwait has long planned to increase its global capacity to produce gas as well as oil. The Gulf nation currently can pump as much as 3mn barrels a day of crude from its wholly owned fields, and KPC targets a daily capacity of 4mn by next year. As a member of the Organization of Petroleum Exporting Countries, however, Kuwait has pledged to cap its oil output as the group seeks to balance the market and prop up crude.

Like many energy producers, Kuwait sees gas as crucial to future growth. Gas use is seen rising faster than demand for oil and coal as policies shift toward lower carbon emissions. The amount of new gas-production capacity investments this year could set a record, according to consultant Wood Mackenzie Ltd.

In Alberta, Canada, Kufpec plans with its joint-venture partner Chevron Corp to start developing the Waskahigan and East Kaybob areas, drilling the first of more than 370 wells over 10 years. The areas are part of the Kaybob Duvernay project producing shale gas and natural gas liquids.

"We continue to look for gas prospects in Australia," al-Sabah said. Kufpec partnered with Woodside Petroleum Ltd at one of its blocks there, and al-Sabah's company is exporting gas via

Woodside's Wheatstone LNG facility. Kufpec sells half its production from there under long-term agreements.

"The other half is sold with a break clause that allows us to take those molecules to Kuwait if and when we need it," he said. "Right now the LNG market is essentially a buyers' market, so it doesn't make sense for us to break a long-term contract" just to sell to KPC when it can get competitive pricing elsewhere, he said.

LNG producers have feared that a massive build-out of new export projects, which began a decade ago, will outpace consumption growth and leave cargoes looking for homes. Spot prices have already tumbled since last fall and are at a steep discount to LNG sold on long-term, oil-linked contracts.

Kufpec, known formally as Kuwait Foreign Petroleum Exploration Co, may supply KPC when the global market tightens, possibly by the mid-2020s, al-Sabah said.

The company has total assets of 3.4bn dinars (\$11.2bn) and is well-funded right now for its current plans.

Total starts biofuel plant in France to take on Eni and Neste



Total SA started production at a new biofuel plant in southern France, taking on rivals such as Neste Oyj and Eni SpA for a share of Europe's biodiesel market. The refinery, in La Mede near Marseille, will process vegetable oil, animal fat and used cooking oil to produce as much as 500,000 tonnes a year of so-called hydrotreated vegetable oil, or HVO, which is blended by distributors with diesel to meet government biofuel requirements.

However, the project has been criticised as it will use palm oil for almost half its main feed- stock at the start. "Our biorefinery will allow us to make biofuels in France that were previously imported," Bernard Pinatel, Total's head of refining and chemicals, said on Wednesday in a statement in which he championed the role of biofuels in cutting carbon emissions. In a September report, Total said it wanted to take more than 10% of the European market for HVO production. It has spent €275mn (\$310mn) since 2015 transforming the unprofitable La Mede oil refinery into a biofuel plant, a conversion similar to one carried out by Italy's Eni in

Venice. Finnish companies including Neste operate the most HVO capacity in Europe. Total's refinery has been controversial for its planned use of palm oil, whose production in countries such as Indonesia is slammed by environmental groups for causing deforestation.

Use of the oil also denies Total French tax breaks that apply to other renewable fuels, meaning the facility can't compete with European peers, Chief Executive Officer Patrick Pouyanne has warned. The oil major has lobbied the government for a change of stance on the tax break, arguing that it's working with palm-oil producers that are certified under a European Union system that tracks sustainable practices and respect for human rights. Total's plant will use as much as 300,000 tonnes of palm oil a year, and at least 50,000 tonnes of French-grown rapeseed. An analysis by the Palm Oil Transparency Coalition shows European palm-oil importers are unlikely to be able to ensure that the products they sell are "deforestation-free" by a self-imposed goal of 2020. Only about a third of the palm oil imported into Europe by the survey respondents could be traced to the plantation it came from, according to the report.