World electric vehicle fleet to surpass 20 million in June

According to Bloomberg New Energy Finance estimates, the global EV fleet is set to reach 25 million by the end of the year and 20 million as soon as June. This is a huge leap in numbers from the 17,000 EVs on the road in 2010.

The speed of adoption is also running 10 years ahead of schedule. In BP’s 2016 report, it estimated that there would be 71 million battery and plug-in hybrid EVs on the road by 2035, but according to Bloomberg, this is now set to be achieved by 2025.

These figures come as part of a consistent pattern of growth: in its 2020 Global EV Outlook report, the International Energy Agency (IAE) showed that between 2018 and 2019 there was an astronomical 40% year-on-year increase in electric car sales.

Even though interest in EVs has been swirling since the early seventies – NASA's 1971 Luna Rover ran on electricity – it's only since 2010, when the first commercially available plug-in hybrid went on sale, that EVs have begun to grow in popularity.

This makes BNEF's 20 million figure even more astonishing. Today there are 23 plug-in electric vehicles and 36 hybrid models available. BNEF also predicted that over the next five years passenger EVs are set to increase from 3.1 million to 14 million.

However, Europe and China are driving a lot of this progress, which slightly skews the reality of the international take-up of EVs. According to Bloomberg, of the EV sales so far, China makes up 46% of total sales, Europe 34% while North America accounts for just 15%.

But with over 1 billion cars in the world, the world's 20 million electric vehicle fleet is just a drop in the ocean. It means that despite the astonishing increase in sales, more needs to be done to meet the ambitious climate plans that have been set out across the globe over the last year in particular.

In the UK, for example, there is now a target in place to make sure all new heavy goods vehicles are zero-emission by 2040. At COP26 in November 2021, there was also a group commitment laid out to accelerate the transition to 100% zero-emission cars and vans.

"Despite the expected rapid rise in EV sales, most countries are still not on track to bring road transport emissions to zero by mid-century," said the BNEF report.

Nevertheless, despite further global take-up of EVs being necessary, BNEF projections still look extremely positive. Already, EVs are displacing the demand for 1 million barrels of oil every day. By 2050 this figure is set to rise to as many as 21 million barrels of oil every day.

‘Qatar, US recognise urgency climate change challenge’

Doha

The State of Qatar and the United States of America recognise the urgency of the challenge posed by climate change and the importance of accelerating global efforts on all aspects of the climate change agenda.
Qatar and the US also agree on the need to provide energy security and tackle the climate crisis together in light of current events and on the road to COP27 in Sharm el Sheikh.
Rapidly reducing methane emissions is the most effective strategy to limit global warming in the near term and keep 1.5 degrees Celsius within reach.
Qatar’s endorsement of the Global Methane Pledge provides critical momentum to global efforts to urgently reduce methane emissions. There are now 111 country endorsements of the

Global Methane Pledge, representing 70% of the global economy and nearly half of global anthropogenic methane emissions.

Countries endorsing the Global Methane Pledge commit to take national-level, voluntary actions to support the collective pledge target of 30% reduction in anthropogenic methane emissions by 2030 from 2020 levels.

Qatar is a global leader in tackling methane emissions as it has achieved example-setting progress reducing methane intensity in the energy sector over the past decade. Qatar has an impressive track record of actions and commitments to monitor, report, verify, and reduce methane, including through reducing flaring and methane emissions in the energy sector.

QatarEnergy was the first national oil company in the Middle East to sign the Methane Guiding Principles, which support voluntary corporate efforts to reduce methane emissions across the natural gas supply chain.

QatarEnergy is also an active member of the Global Gas Flaring Reduction Partnership (GGFR) with a firm commitment to end routine flaring by 2030 and has joined the second phase of the Oil and Gas Methane Partnership (OGMP 2.0), which enables systematic and credible reporting on oil and gas methane emissions.

The Global Methane Pledge builds on Qatar’s status as a founding member of the Net-Zero Producers Forum, and its ongoing strong performance, and provides an exciting new platform for Qatar and the US to deepen cooperation on methane reduction efforts, including with third countries.

UN climate report reignites global fight for compensation

With this week’s UN climate science report laying bare the staggering economic costs and losses already faced from climate change, an inevitable question arises: who should pay?

Within UN climate negotiations, “loss and damage” refers to the costs countries are incurring from climate-related impacts and disasters – costs that disproportionately hit the world’s poor and vulnerable who did least to cause global warming.

Drawing on more than 34,000 references from the latest scientific papers, the report released on Monday by the UN Intergovernmental Panel on Climate Change (IPCC) confirmed that economic sectors from agriculture and fishing to tourism were already being damaged.

Extreme heat has fuelled crop losses. Rising seas have turbo-charged cyclones that have razed homes and infrastructure, slashing economic growth.

And as the bills mount up, poorer countries are left with even less to spend on heath, education and infrastructure – compounding suffering.

“It’s an unending situation,” said Anjal Prakash, a lead IPCC author and research director at the Indian School of Business.

The report is likely to intensify a years-long political fight over funding to pay for climate-linked losses, ahead of the next UN climate summit, COP27, in Egypt in November.

Vulnerable countries for years have sought funding to help them shoulder these costs. So far, it hasn't arrived, and rich nations have resisted steps that could legally assign liability or lead to compensation.
The mention of "loss and damage" in the 2015 Paris Agreement came with the caveat that it "does not involve or provide a basis for any liability or compensation".
Last November at the COP26 climate summit in Glasgow, poor countries called for a special "loss and damage" fund to be established, but the United States and other rich nations resisted. The delegates agreed to set up a UN body to help countries address loss and damage, and to continue discussions towards making "arrangements" for funding.
But there is no clarity on where the money would come from.
"We can't just create more talk shops when people are dying," said Harjeet Singh, senior adviser at Climate Action Network. He said COP27 needed to establish the funding facility that developing countries, including China, had called for at COP26.
Singh and other campaigners said the IPCC report – which has been approved by nearly 200 governments – could intensify pressure on the world's most powerful nations.
"It will help us to say that science is clear, the impacts are clearer now. So you are accountable for this, and you have to pay for this," said Nushrat Chowdhury, a policy advisor at NGO Christian Aid.
The report's discussion of climate losses is bolstered by recent improvements in "attribution science", which allows scientists to confirm when climate change caused or worsened a specific extreme weather event.
Still, putting a number on the resulting losses remains contentious. For example, can climate-linked losses from a weather event be separated from losses caused by poor disaster planning? Can costs be counted for losses outside our economic systems, such as when nature is degraded or a community burial site is destroyed?
"We are still debating that in the scientific community," said

another IPCC lead author Emily Boyd, a professor at Sweden’s Lund University.

As climate disaster costs mount and UN negotiations remain stuck, some are considering other options.

“Liability and compensation have other avenues to be taken forward, which are courts,” said Saleemul Huq, an adviser to the Climate Vulnerable Forum group of 55 countries.

Sophie Marjanac, lawyer at environmental law firm ClientEarth, said the IPCC report “will generally support litigation” to address climate change.

The legal avenue faces other obstacles, however.

Last year a federal appeals court rejected New York City’s attempt to use state law to hold five oil companies liable to help compensate harm caused by global warming. The court said the regulation of greenhouse gas emissions should instead be addressed under federal law and international treaties.

“Challenges in climate change litigation are related to the law, not to do with the science,” Marjanac said. “The science has been clear, very clear for years.”

Global airlines on the flight path to carbon neutral aviation

Air transport’s commitment to tackling its environmental challenges has not diminished despite the Covid-19 crisis that has decimated the global aviation industry. On the contrary, many airlines have pledged further action by targeting net-zero emissions; by purchasing sustainable aviation fuel (SAF); retiring aged aircraft, such as the iconic Boeing 747; and investing in the latest generation of fuel-efficient planes, including the Boeing 737 MAX and Airbus A350.

The development and deployment of sustainable aviation fuel (SAF) is the biggest area of opportunity for long-term reductions in aviation emissions, according to IATA, the global body of airlines.

SAF has the capability to reduce emissions 80% on a “like-for-like” basis with Jet A-1 fuel.

Elevating the production capacity for SAF is therefore a priority for airlines. Current levels are too low, at around 0.02% of global demand, to significantly lessen emissions or to generate the economies of scale necessary to reduce costs to competitive levels. But production is beginning to increase dramatically.

In 2021, IATA estimates the production and use of between 100mn and 120mn litres of SAF – an increase of more than 50% on 2020.

SAF facilities commissioned some three to four years ago are now coming online, IATA noted. An example is the Fulcrum Sierra Biofuel plant in Reno, Nevada, in the United States, which converts solid municipal waste into SAF.
Numerous additional SAF production facilities will come online over the next four years, such that by 2025 approximately 5bn litres of SAF could be available. That, IATA says, will meet around 2% of global demand.
By 2030, projections are for SAF availability to increase to cover at least 5% of demand globally. Meeting and exceeding projections for SAF cannot be the responsibility of SAF producers and the aviation industry alone.
Governments need to set in place supportive policy frameworks, industry experts say.
The global air transport industry recently took a momentous decision to achieve net-zero carbon emissions by 2050 and ensure that flying is sustainable.
To achieve that, cost-competitive sustainable aviation fuels (SAF) should fuel the majority of aviation's global emissions mitigation in 2050.
The industry has set out the pathway to meet its 2050 goal using a mixture of new technology, efficient operations, and improved infrastructure.
The target of reducing net CO_2 by half is feasible through the aggressive deployment of SAF.
Other proposed options include the accelerated development of small, zero-emissions aircraft for short-haul operations from 2035 and the use of offsets in the interim.
These and other measures could also make it possible for the industry to meet an even more ambitious goal of net-zero carbon emissions by 2050.
It is estimated that (under the industry's trend setting initiative CORSIA or Carbon Offsetting and Reduction Scheme for International Aviation – a global carbon offsetting scheme) aviation will have to offset 2.6bn tonnes of CO_2 between 2021 and 2035.
Obviously, the aviation industry has pinned its hopes on

sustainable aviation fuels, which it believes will help reduce airlines' global emissions and industrial carbon footprint.

It is proven that SAF can cut CO_2 lifecycle emissions up to 80% compared with conventional jet fuel. It uses sustainable fuel sources, which do not compete with food or water, or damage biodiversity.

Rather than being refined from petroleum, SAF is produced from sustainable resources such as waste oils from a biological origin, agri-residues, or non-fossil carbon dioxide (CO_2).

Sustainable aviation fuels are currently certified by regulators for up to 50% use in commercial flights.

SAF has been around since 2008. And more than 300,000 flights have taken to the skies using SAF since 2016, according to the International Air Transport Association. More than 45 airlines now have experience with SAF.

These flights have used it blended with regular aviation – without the need for any modification of engines or aircraft – and production continues to grow.

The amount of SAF used by commercial aircraft rose 65% between 2019 and 2020, despite the devastating financial impact of Covid-19 on airlines.

IATA Director General Willie Walsh says governments must be active partners in achieving net zero by 2050. As with all other successful energy transitions, government policies have set the course and blazed a trail towards success.

“The costs and investment risks are too high otherwise. The focus must be on reducing carbon,” Walsh insists.

India solar park sparks

desire for school

By Roli Srivastava/Bhadla

The teenage girls of Bhadla, near one of the world’s largest solar parks, store their books in tattered briefcases and their dreams in the essays they write between household chores.

Their remote pastoral community lost the land their animals grazed on until about a decade ago to the solar power plant in the northwestern state of Rajasthan – as well as the opportunity to work at the park due to a lack of education and skills.

Once resentful, these days Bhadla’s young women say they want to get jobs at the solar facility, reflecting emerging aspirations as India expands its renewable power capacity amid a global shift to clean energy.

“I could work in the solar park if I was educated – I could manage files in the office or do their accounts,” said Hira Bano, 18, who finished tenth grade two years ago.

“I have to study or I will be stuck in household work all my life,” said Bano, taking her books out of a briefcase gathering dust since the only village school shut more than

two years ago.
Bhadla is home to one of the 52 solar parks India had approved across 14 states as of last year, in a drive to wean itself off planet-heating coal and meet a renewable energy goal of 500 gigawatts by 2030.
Sunny Rajasthan is a preferred state for building large new solar installations as it has available barren desert land that is sparsely populated, said state officials.
At 2,300 megawatts, Bhadla has the world’s largest solar farm capacity – and more parks are in the offing in Rajasthan, according to officials at the state-run Rajasthan Renewable Energy Corporation Limited (RRECL).
That is creating opportunities in a region with previously few jobs due to its extreme natural conditions and lack of water, said RRECL chairman and managing director Subodh Agarwal.
Nonetheless, Bhadla locals – pastoralists who for generations kept animals on state land they treated as their own – feel left out of the development frenzy in their backyard.
“We have lost land and livestock, so it is only education that can give us a livelihood,” said village elder Mohamed Sujawal Mehr.
“Now big companies surround us, but only a few of our men got jobs there,” he said, noting that even a security guard position requires tenth-grade schooling. “How can they hire us if we can’t read or write?”
Bhadla’s school was once an unused village accessory, as education was not seen as a priority, until the arrival of the solar park infused new life into it.
The park’s biggest operator, Saurya Urja, a joint venture of the state and infrastructure firm IL&FS, started sending two teachers to the school to hold regular classes.
One of them, Andaram Meghwal, said that when he first came to the village in 2017, the children climbed to the tops of the trees they were so afraid.
“We got students (to come in) from nearby towns to give them exposure to the world outside,” he said. “We shared stories of women achievers, the challenges they overcame.”

Bano – who had previously spent her time grazing cattle, working on the farm and fetching firewood – fell in love with science, school games and the idea of pursuing a career.

Girls were more inspired to study than boys as they had lost their main activity of grazing animals, while men could find work at the solar park, Meghwal said.

This was between 2015 and 2020, when 900,000 blue solar panels were erected on 12,000 acres, 5,500 jobs were created, and eateries and tea shops opened along a new highway.

But as the park neared completion, jobs for unqualified workers began to shrink. The plant has created about 1,100 long-term jobs to operate and maintain it over 25 years – but locals lack the technical skills needed, said Saurya Urja officials.

Sarthak Shukla, a sustainability policy consultant, said clean energy provides fewer direct jobs than thermal coal power, which employs 800 to 900 people for a 1GW plant compared with 25 to 30 at a similar-sized solar park.

In Bhadla, Ayub Khan Chooda, 35, is among those who have benefited, crediting his contract to wash 400 solar panels daily to his three tractors – which pull small water tankers along the rows – despite having studied only up to first grade.

Dadda Khatoon, 32, was also happy when her husband returned from Dubai, after six years of milking and grazing camels, and got a security guard job at the solar park for Rs8,000 ($106.30) a month.

"He is happy, healthy and we are also able to save some money," said Khatoon, sitting with village women in the winter sun. "But I don't seem to have a role anymore apart from cooking and feeding my family. I think I had more respect then."

With no land left to graze their animals, Bhadla residents sold their livestock whose fodder, a bitter yellow fruit called "tumba", now lies uneaten on the vine between the solar panels.

Women from this conservative community no longer venture out,

fearing the busy highway and “the new people from cities”.
Local health workers said hypertension and diabetes have become quite common owing to the new sedentary lifestyles.
Shukla said that with a better understanding of the social and cultural impacts and the right policies, the solar sector could offer opportunities for Indian women, including training and other incentives such as health and education programmes.
Globally, women make up 32% of the renewable energy workforce compared with 22% in the oil and gas industry, according to the International Renewable Energy Agency.
Local elder Mehr loves to recall the celebrations two years ago when three girls, including Bano, passed their tenth grade, the first to do so in this village of 250 households.
“We banged plates, clapped,” he said.
But their school, which had about 100 students, shut down soon after when a disgruntled teacher submitted a report showing zero attendance – a claim disputed by villagers.
The solar firm also stopped supporting classes and shifted to a broader community focus running mobile health and veterinary clinics, according to Saurya Urja CEO Keshav Prasad.
He told the Thomson Reuters Foundation that the company backed the villagers’ demand to reopen the school, pointing to rising demand for education across villages near the solar park.
Manphool Singh, the education official overseeing Bhadla school, said he had received the requests and a government decision was pending.
“We are trying our best to open it so children can study again,” he said.
Meanwhile, the girls cook, clean and stitch together colourful pieces of cloth to make rugs for their dowries.
Drawing water from a well, Asma Khatoon, 15, said her only desire was for the school to reopen so she could sit her tenth-grade exam.
In a short Hindi essay, she wrote: “This village has too many restrictions… I want to study, become a working woman.” – Thomson Reuters Foundation

Airbus to test hydrogen engine on A380 jumbo jet

By Alex Macheras

Airbus this week announced it will modify a superjumbo A380 to test a hydrogen-powered jet engine as the European aerospace group prepares to bring a zero emissions aircraft into service by 2035.

The partnership is an agreement with CFM International, a 50/50 joint company between GE and Safran Aircraft Engines, to develop an engine that can run on hydrogen. The converted test aircraft, the A380, will fly by the end of 2026.

The programme's objective is to ground and flight test a direct combustion engine fuelled by hydrogen, which Airbus is betting on to enable the company to decarbonise in line with aviation's climate change goals. The A380 flying test jet will be equipped with liquid hydrogen tanks prepared at Airbus

facilities in France and Germany. Airbus will also define the hydrogen propulsion system requirements, oversee flight testing, and provide the A380 platform to test the hydrogen combustion engine in cruise phase.
CFM International will modify the combustor, fuel system, and control system of a GE Passport turbofan to run completely on hydrogen. The engine itself will be mounted along the rear fuselage of the A380 test jet to allow engine emissions, including contrails, to be monitored separately from those of the engines powering the aircraft.
“This is the most significant step undertaken at Airbus to usher in a new era of hydrogen-powered flight since the unveiling of our ZEROe concepts back in September 2020,” said Sabine Klauke, Airbus chief technical officer. “By leveraging the expertise of American and European engine manufacturers to make progress on hydrogen combustion technology, this international partnership sends a clear message that our industry is committed to making zero-emission flight a reality.”
The venture comes amid increasing pressure on the aviation industry to cut pollution and meet zero-emission targets by 2050. Before the pandemic led to the grounding of much of the world’s aircraft, aviation accounted for roughly 2.4% of global emissions. “To achieve these goals by 2050 the industry has to take action now and we are,” said Gael Meheust, chief executive of CFM.
“Is hydrogen harder? Yes. Is it do-able? Absolutely,” said Mohamed Ali, vice-president and general manager of engineering at GE Aviation.
Executives said the decision to use an A380, the world’s largest passenger airline jet that has been phased-out at many airlines around the world due to its inefficiencies, would allow engineers more room for things like the tanks and the testing equipment. A commercial product available to airlines over the coming years will be much smaller. Airbus is expected to initially produce a regional or shorter-range aircraft.
In today’s aircraft, wings are where the fuel is stored, and they are in no way large enough to store the hydrogen that would be needed for a long flight. Hydrogen planes of the future could have extra-large fuselages, but more likely they will be what’s called blended wing, in which the planes are

shaped like large triangles. This would allow them to store more fuel, but also reduce fuel consumption to make the aircraft aerodynamics even better.

Planes using hydrogen would emit only water, and initial tests suggest they can be just as fast as traditional planes, carrying more than a hundred passengers per flight over thousands of kilometres.

Most of the world’s hydrogen today is produced by reforming methane from natural gas – a fossil fuel – which produces carbon dioxide. Efforts are underway to develop green hydrogen by using an electric current from a renewable source to convert water into oxygen and hydrogen and reduce emissions in its production. If that is possible, along with no emissions from the planes themselves, aviation could become a green form of travel.

There are significant challenges that remain. If Europe were to fully achieve the environmental benefits of hydrogen-power – for example, for air travel, the production of clean – or green – hydrogen needs to be dramatically scaled up. Clean hydrogen is produced from water using an electric current from a renewable source, rather than from fossil fuels. Today only a tiny fraction of hydrogen used in Europe is categorically “clean.”

Hydrogen is a high-potential technology with a specific energy-per-unit mass that is three times higher than traditional jet fuel. Airbus notes that, if generated from renewable energy through electrolysis, given the fact it emits no CO2 emissions, it will enable renewable energy to potentially power large aircraft over long distances but without the undesirable by-product of CO2 emissions.

For now, we are still years away from commercial hydrogen aircraft becoming a reality, though. The refuelling infrastructure doesn’t exist yet and hydrogen is more expensive and difficult to store onboard than kerosene-based fuel.

“Hydrogen combustion capability is one of the foundational technologies we are developing and maturing as part of the CFM RISE Programme,” said Gaël Méheust, president & CEO of CFM. “Bringing together the collective capabilities and experience of CFM, our parent companies, and Airbus, we really do have the dream team in place to successfully demonstrate a hydrogen propulsion system."

Boeing has focused on more sustainable aviation fuels, which currently make up less than 1% of the jet fuel supply and are more expensive than conventional jet fuel. CEO Dave Calhoun said at an investor conference that he didn't expect a hydrogen-powered plane on "the scale of airplanes that we're referring to" before 2050.

Sustainable Aviation Fuel is a clean substitute for fossil jet fuels. Rather than being refined from petroleum, SAF is produced from sustainable resources such as waste oils from a biological origin, or non-fossil CO2. It is a so-called drop-in fuel, which means that it can be blended with fossil jet fuel and that the blended fuel requires no special infrastructure or equipment changes. It has the same characteristics and meets the same specifications as fossil jet fuel.

Since the first commercial flight operated by KLM in 2011, more than 150,000 flights were powered by SAF. More than 45 airlines now have experience with SAF, and around 14bn litres of SAF are in forward purchase agreements.

Several airlines are driving forward the use of SAFs by signing multi-million dollar forward purchasing agreements. Others have invested in start-up support for SAF deployment, and some have promoted SAFs through test flights, research, and investigation of local opportunities. Five airports also have a regular SAF supply: San Francisco, Los Angeles, Oslo, Bergen and Stockholm.

However, scaling up the use of SAFs to a global market is challenging and requires substantial investment. The industry has called on governments to assist potential SAF suppliers to develop the necessary feedstock and refining systems – at least until the fledgling industry has achieved the necessary critical mass and prices drop thanks to economies of scale.*

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Renewable firms pinning hopes on Taro Kono winning race for Japan PM

Reuters / Tokyo

Renewable energy companies are betting that the leading contender in the race to become Japan’s next prime minister, Taro Kono, will unleash changes allowing more market access and a fairer playing field after years of neglect.
The 58-year-old has long championed more renewable supplies in Japan’s roughly $150bn electricity sector, the world’s biggest national power market outside China.
Investors have been buying renewable energy shares hoping the popular Kono wins the September 29 vote for the Liberal Democratic Party’s (LDP) next leader and – by virtue of its majority in the parliament – Japan’s next premier.
Japan’s energy mix is already undergoing change, with renewables on the rise, replacing fossil fuels which shored up power following the Fukushima nuclear disaster in 2011.
Kono, a former defence minister and scion of a political

dynasty, is currently in charge of administrative reform and has clashed with the powerful industry ministry (METI), which like the steel federation, has supported a revival of the moribund nuclear sector.

“Kono has eagerly taken on deregulation over the past year, and a lot has changed. Japan’s energy shift will advance further if Kono is elected,” said Mika Ohbayashi, a director at Renewable Energy Institute founded by SoftBank Group Corp Chief Executive Masayoshi Son.

Renewable energy has also received a boost from outgoing Prime Minister Yoshihide Suga’s pledge last year to align Japan with Europe and declare a 2050 carbon neutrality target.

“The attitudes of officials at METI have drastically changed. Their attitudes toward renewable energy startups used to be rather cold, but they can’t afford to continue that stance,” said Koki Yoshino, executive officer at Japan Renewable Energy, which operates nearly 50 wind and solar power projects.

In 2018 a panel convened by Kono, who was then foreign minister, caused controversy by wading into the energy debate, normally METI’s preserve, supporting a call to get rid of nuclear power and coal while dramatically increasing renewables. Last year, Kono set up a taskforce to take down regulatory hurdles hindering Japan’s shift to renewables.

The world’s third-largest economy and fifth-biggest carbon emitter is heavily reliant on imported fossil fuels 10 years after the Fukushima catastrophe almost killed off its nuclear sector, the source of a third of Japan’s electricity before 2011.

Renewable energy is fast catching up and accounted for 22% of Japan’s energy supplies last year, meeting a recent government target a decade ahead of schedule and even contributed more than coal in one quarter.

Despite that growth, critics say METI has introduced rules that make it easy to force solar plants to shut down, known as curtailment, when supplies are abundant.

Connections for renewable projects are also being withheld at the whim of entrenched companies, Kono says on his home page where he outlines his polices.

Rules governing the use of a major transmission line that connects Japan's main island to Hokkaido in the north need to be revised to allow more renewables into the mix, Kono says.

Electricity transmitted through the line has to be declared a day ahead of the actual transmission, making it difficult for weather-dependent renewables to use the line, which is currently underutilised, to transmit power to Tokyo, he says.

METI has increased the target for renewables to produce 36-38% of Japan's electricity by 2030, up from 22-24%, and has set auction rules for offshore wind, one of the fast growing sectors in other parts of the world.

Reeling in a deal to save the ocean

By Helen Clark, Arancha Gonz?Lez, Susana Malcorra, And James

Michel Auckland/Madrid/Victoria/Anse Royale

The ocean covers more than 70% of our planet's surface, produces half of the oxygen we breathe, feeds billions of people, and provides hundreds of millions of jobs. It also plays a major role in mitigating climate change: over 80% of the global carbon cycle passes through the ocean. But this precious natural resource is not invincible. Despite all the benefits it affords us, the ocean today faces unprecedented man-made crises that threaten its health and its ability to sustain life on Earth.

The greatest threat to marine biodiversity is overfishing. More than one-third of global fish stocks are overfished and a further 60% are fully fished. Each year, governments around the world encourage overfishing by providing $22bn in harmful fisheries subsidies. Although these subsidies are designed to help support coastal communities, they instead prop up unsustainable and unprofitable fishing activity, depleting the very resource on which local populations' livelihoods depend.

This problem is not new. In fact, the World Trade Organisation's members have been trying to negotiate a deal to curb these damaging payments since 2001. World leaders reiterated their commitment to tackling the issue when they agreed in 2015 to the Sustainable Development Goals (SDGs). Under SDG 14, which aims to put a healthy ocean at the heart of the global sustainable-development agenda, leaders promised by 2020 to reach an agreement at the WTO that would reduce fisheries subsidies. But they missed the deadline, as negotiations slowed during the worst of the Covid-19 pandemic.

Research shows that if WTO members were to eliminate all harmful fisheries subsidies – the most ambitious scenario – global fish biomass could increase by 12.5% by 2050. That's an additional 35mn metric tonnes of fish, or more than four times North America's annual fish consumption in 2017. And this is a conservative estimate. Removing destructive subsidies really will mean more fish in the sea.

The aim is not to remove support from fishing communities, but rather to redirect it in a more meaningful and less damaging way. Even if a deal does not eliminate all harmful subsidies, it would create a global framework of accountability and transparency for subsidy programmes. That, in turn, would spur dialogue between governments, fishing communities, and other stakeholders to spur the development of redesigned policies that better support fisherfolk while protecting our global commons.

Moreover, an agreement is within reach – if the political will is there to deliver it. The most recent lapse of the negotiations resulted from differences over how to structure flexibility in subsidy regimes for developing countries, as well as how to define and enforce rules on illegal fishing and sustainable stocks. But after numerous proposals and discussions, the comprehensive draft now on the table combines measures to curb harmful subsidies with specific exceptions for developing countries.

With the start of the WTO’s 12th Ministerial Conference in Geneva just days away, now is the moment for a deal. Failure to conclude one would not only harm the ocean and the livelihoods of those who depend upon it, but also would diminish the global rules-based system and damage the pursuit of the 2030 Agenda for Sustainable Development. In contrast, ending harmful fisheries subsidies would reduce the cumulative pressures on the ocean and increase its resilience in the face of climate change.

In the wake of the UN Climate Change Conference (COP26) in Glasgow, governments must demonstrate their willingness to use every tool at their disposal to tackle the climate crisis. The stakes at the upcoming WTO Ministerial Conference have perhaps never been higher. The future of multilateral trade co-operation is at risk; but, above all, jobs, food security, and the health of our global commons are on the line.

That is why 33 former government leaders and ministers from around the world have joined forces with nearly 400 scientists in urging WTO members to “harness their political mandate to protect the health of the ocean and the well-being of

society."
Governments have given their word that they will curb destructive fisheries subsidies. Next week's meeting in Geneva will test the credibility of that pledge.
This commentary is also signed by: Axel Addy – Minister of Commerce and Industry of Liberia (2013-18); Mercedes Araoz – Prime Minister of Peru (2017-18) and Vice-President of Peru (2016-2020); Hakim Ben Hammouda – Minister of Economy and Finance of Tunisia (2014-15); Herminio Blanco – Minister for Trade and Industry of Mexico (1994-2000); Maria Damanaki – European Commissioner for Maritime Affairs and Fisheries (2010-14); Eduardo Frei Ruiz-Tagle – President of Chile (1994-2000); Michael Froman – US Trade Representative (2013-17); Tim Groser – Minister of Trade of New Zealand (2008-2015); Enrique V Iglesias – President of the Inter-American Development Bank (1988-2005); Hilda Heine – President of the Marshall Islands (2016-2020); Ban Ki-moon – UN Secretary-General (2007-2016); Ricardo Lagos – President of Chile (2000-06); Pascal Lamy – Director-General of the WTO (2005-2013); Roberto Lavagna – Minister of Economy of Argentina (2002-05); Cecilia Malmstrom – European Commissioner for Trade (2014-19); Peter Mandelson – European Commissioner for Trade (2004-08); Sergio Marchi – Minister of International Trade of Canada (1997); Heraldo Munoz – Minister of Foreign Affairs of Chile (2014-18); Pierre Pettigrew – Minister for International Trade of Canada (1999-2003), Minister of Foreign Affairs of Canada (2004-06), Tommy Remengesau, Jr. – President of the Republic of Palau (2001-09, 2013-2021); Jose Luis Rodríguez Zapatero – Prime Minister of Spain (2004-2011); José Manuel Salazar – Minister of Foreign Trade of Costa Rica (1997-98); Susan Schwab – US Trade Representative (2006-09); Juan Somavia – Director-General of International Labour Organisation (1999-2012); Alberto Trejos – Minister of Foreign Trade of Costa Rica (2002-04); Allan Wagner – Minister of Foreign Affairs of Peru (1985-88, 2002-03, 2021); Andres Velasco – Minister of Finance of Chile (2002-06); Ernesto Zedillo Ponce de León – President of Mexico (1994-2000); and

Robert Zoellick – US Trade Representative (2001-05). – Project Syndicate

• *Helen Clark is a former prime minister of New Zealand (1999-2008). Arancha González is a former foreign minister of Spain (2020-21). Susana Malcorra is a former foreign minister of Argentina (2015-17). James Michel is a former president of the Republic of Seychelles (2004-2016).*

Where is the money? Climate finance shortfall threatens global warming goals

Rich nations under pressure to deliver unmet $100-billion pledge

* More ambitious climate plans hinge on international funding

* Eyes on U.S. to boost finance at U.N. gathering next week

KUALA LUMPUR/BARCELONA, Sept 16 (Thomson Reuters Foundation) – F or a storm-prone developing country like the Philippines, receiving international funding to protect its people from wild weather and adopt clean energy is not only an issue of global justice – the money is essential to deliver on its climate plan.

Without promised support, many vulnerable poorer nations – battered by the economic impacts of COVID-19 and surging climate disasters – say they simply cannot take more aggressive action to cut planet-heating emissions or adapt to a warmer world.

The Philippines, for example, has pledged to reduce its emissions 75% below business-as-usual levels by 2030.

But only about 3 percentage points of that commitment can be delivered with its own resources, its national climate plan says. The rest will require international finance to make sectors like farming, industry, transport and energy greener.

“Environmental groups say our (target) is unambitious because it’s highly conditional. What they don’t see, however, is what we submitted is what is doable for the Philippines,” said Paola Alvarez, a spokesperson at the Department of Finance.

“Our economy is not doing well because of the pandemic and we have back-to-back typhoons every now and then,” which means national resources need to be prioritised for social programmes, she told the Thomson Reuters Foundation.

As leaders prepare to attend the United Nations General Assembly in New York next week, wealthy nations are coming under ever-greater pressure to deliver on an unmet pledge, made in 2009, to channel $100 billion a year to poor countries to tackle climate change.

With budgets worldwide squeezed by the COVID-19 crisis and U.N. climate talks postponed for a year, the original 2020 deadline to meet the goal was likely missed, analysts have said.

But as November’s COP26 climate summit approaches fast, time is running out to convince developing countries – both big and small emitters – that any efforts at home to raise their climate game will be met with solid financial backing, analysts say.

Alden Meyer, a senior associate in Washington for think-tank E3G, focused on accelerating a low-carbon transition, said the $100-billion promise is well below what is actually needed by emerging economies to mount an adequate response.

But delivering on it is key to spurring them on, he added.

Right now, they can say, “the developed countries aren’t doing what they said they would do in terms of support, so why should we ramp up ambition (to cut emissions)?” Meyer said.

Government officials in India – the world’s fourth-biggest emitter of planet-heating gases – have said, for example, that any further commitment to reduce its carbon footprint will depend on funding from rich countries.

National pledges to cut emissions so far are inadequate to keep global temperature rise to “well below” 2 degrees Celsius above preindustrial times, and ideally to 1.5C, as about 195 countries committed to under the 2015 Paris Agreement.

The U.N. climate science panel warned in a report in August that global warming is dangerously close to spiralling out of control and will bring climate disruption globally for decades to come, in wealthy countries as well as poor ones.

‘BARE MINIMUM’

Some big greenhouse gas emitters, including China, Russia and India, have yet to submit more ambitious plans to the United Nations, as they committed to do by 2020 under the Paris pact.

But of the roughly 110 plans delivered by other countries ahead of an adjusted U.N. deadline in July, nearly all hinge on one key condition: money.

According to the World Resources Institute (WRI), a U.S.-based think-tank that tracks national climate pledges, “well over half” of those updated emissions goals include actions that can only happen with the support of international finance.

“This underscores why it’s so critical for developed countries to deliver on their $100-billion pledge. It’s the bare minimum,” said Taryn Fransen, a climate policy expert at WRI.

In the latest submissions, a growing number of developing nations have stepped up with emissions goals they can implement on their own, she added, including Argentina, Chile and Colombia, which have dropped requests for support entirely.

But honouring the $100-billion annual commitment – which covers the five years until 2025, when a new yet-to-be-negotiated goal is set to kick in – is key to fostering trust within the global climate talks and facilitating a faster green transition, she stressed.

The latest available figures from the Organisation for Economic Co-operation and Development show that in 2018, a little under $80 billion was delivered to vulnerable countries.

An analysis by aid charity Oxfam last year put the real figure – when counting only grants and not loans that have to be paid back – much lower, at $19 billion-$22.5 billion.

Meanwhile, the 46 least-developed countries between 2014 and 2018 received just $5.9 billion in total for adaptation, a level that would cover less than 3% of the funds they need this decade, found a July study from the International Institute for Environment and Development.

U.S. FALLS SHORT

Climate and development experts argue industrialised countries built their prosperity by burning fossil fuels, making them responsible for a large part of the losses happening in countries on the frontlines of worsening floods, droughts, storms and rising seas, many of them in the southern hemisphere.

A 2020 study in The Lancet Planetary Health journal estimated that, as of 2015, nations in the Global North were responsible for 92% of carbon emissions beyond safe levels for the planet, while the Global South accounted for just 8%.

Diann Black-Layne from the Caribbean nation of Antigua and Barbuda, which is battling sea level rise and more frequent hurricanes, said climate action for developing countries “has to be conditional, because we can’t get the money”.

Black-Layne, lead climate negotiator for the 39-member Alliance of Small Island States, questioned why wealthy governments continued to fund the fossil fuel industry while failing to meet their $100-billion-a-year pledge.

“That money is available,” she said. “There is no shortage of money to get us to the 1.5C (temperature goal).”

Ahead of the COP26 summit, which starts on Oct. 31, host nation Britain has tasked Germany and Canada with coming up with a delivery plan for the elusive $100 billion a year, but observers believe that is unlikely to land until next month.

A major question is whether U.S. President Joe Biden will unveil a bigger U.S. finance commitment at the U.N. General Assembly next week, as concerns grow that the world’s biggest economy is failing to cough up its fair share.

At an April summit he hosted, Biden said the United States would double its climate finance to about $5.7 billion a year by 2024 – but that level is still seen by many climate finance experts as far below what it owes to developing countries.

A recent analysis from the Overseas Development Institute said the United States should be stumping up more than $43 billion a year based on cumulative carbon emissions, gross national income and population size.

It called the United States the biggest offender among 23 donor states in terms of falling short of its responsibilities.

On Wednesday, the European Union pledged to boost the $25 billion per year it provides in climate funding to poorer countries by 4 billion euros ($4.7 billion) through 2027, and called on the United States to step up too.

Laurence Tubiana, CEO of the European Climate Foundation and a key broker of the Paris Agreement, said this week that "serious pledges" were now needed from Washington given that some European nations had already raised their commitments.

"The U.S. must step up solidarity," she said, adding she understood Washington was working hard to do so. ($1 = 0.8462 euros) (Reporting by Beh Lih Yi @behlihyi and Megan Rowling; Editing by Laurie Goering. Please credit the Thomson Reuters Foundation, the charitable arm of Thomson Reuters, that covers the lives of people around the world who struggle to live freely or fairly. Visit news.trust.org)

Scoping out corporate carbon neutrality

By Geoffrey Heal/New York

In the run-up to this year’s United Nations Climate Change Conference in Glasgow (COP26), a growing number of companies hopped on the sustainability bandwagon, declaring commitments to achieve carbon neutrality – net-zero carbon-dioxide emissions – by mid-century. And among the many ambitious announcements to come out of COP26 is that almost 500 financial-services firms have “agreed to align $130 trillion – some 40% of the world’s financial assets – with the climate goals set out in the Paris agreement, including limiting global warming to 1.5°C.”
But many commentators have been sceptical about such proclamations, suggesting that they amount to greenwashing. Critics point to corporations’ heavy reliance on “offsetting,” which has become an increasingly important – and controversial – issue in the broader climate debate. So great is the confusion about what is real and what is not that the Taskforce on Scaling Voluntary Carbon Markets, led by UN Special Envoy for Climate Action and Finance Mark Carney, has established a new governance committee to review corporate emissions pledges.
The sceptics are right to be concerned about the use of

offsets. The world needs to get to net-zero by mid-century, and it cannot do that with offsets. Companies buy offsets precisely so that they can continue emitting greenhouse gases (GHGs) while claiming that their emissions are zero, net of the offsets. The very existence of an offset means that the purchaser’s emissions are not zero.

But not all offsets are alike. The critics focus on offsets in which one company or country pays another to reduce emissions and then claims the reduction as its own. This is the kind of offset that cannot be allowed if the world as a whole is to get to zero emissions. There is a place, however, for offsets generated by removing GHGs from the atmosphere, for example by direct air capture or forest growth. If a company emits 100 tons of CO_2 and then removes the same amount, its net emissions really are zero. If all companies do this, the world as a whole will achieve net-zero emissions.

True, the recourse to forestry requires a cautionary note. Growing trees raises issues of both additionality and permanence – additionality because it is hard to be sure that the forest growth would not have occurred anyway, and permanence because there is a risk that the forest will burn, a problem that has grown more visible and severe in recent years.

Still, offsets can play a positive role. The costs of reducing GHG emissions, and the willingness and ability to pay for such reductions, vary greatly from country to country, depending on the sources of its emissions and its stage of development. Some countries may not be willing or able to pay for an expensive reduction in emissions at home but could still pay for less costly reductions abroad. When this happens, an offset market can facilitate a reduction in emissions that would not otherwise have occurred, or that would not occur without a policy that penalises CO_2 emissions.

In this case, offsets may be useful at least in moving the world closer to net-zero emissions. But to reach the finish line, they will have to be phased out at some point. There ultimately is no place for offsets in a zero-emissions world.

In the meantime, policymakers and business leaders would do well to attend to a related issue that has been neglected: the failure to distinguish between so-called scope-one, scope-two, and scope-three emissions. Scope one refers to emissions that arise from a company's own operations, whereas scope two applies to those associated with the production of electric power purchased by the company, and scope three to those arising from other parts of the supply chain, particularly from the consumption of the product.

Clearly, there is potential for massive double counting here if one adds up all the emissions across companies. If my company purchases electricity from a local utility, the associated emissions are scope two for me and scope one for the utility. If Exxon sells jet fuel to American Airlines for use in Boeing aircraft, the emissions are scope three for Exxon and Boeing, and scope one for American Airlines. These emissions are counted three times, which is anathema to any competent accounting system. Every scope-two or -three emission is someone else's scope-one emission.

Fortunately, such confusion is avoidable. If every company has reduced its scope-one emissions to zero, aggregate corporate emissions will be zero. It therefore makes sense for every company to focus only on this factor. If scope-one emissions are brought to zero, scope-two and scope-three emissions will take care of themselves.

This should help to simplify the general policy guidance and instructions given to companies: Focus on reducing your scope-one emissions. Plan on phasing out offsets over the long run. And continue to look for opportunities to remove GHGs from the atmosphere, as these reductions can still be counted against your own scope-one emissions. — Project Syndicate

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