### UN climate chief calls for \$2.4tn inclimate finance



The world needs to mobilise at least \$2.4tn to keep global climate change goalswithin reach, the United Nations climate chief said in a speech yesterday.

Simon Stiell, executive secretary of the UN Framework Convention on ClimateChange (UNFCCC), addressed a group of students at the Azerbaijan DiplomaticAcademy in Baku, host of the COP29 climate summit in November, laying out thesteps that need to be taken this year to turn the commitments made at last year'ssummit in Dubai into reality.

This was Stiell's first major speech since the UN gathering in Dubai, where nearly200 countries agreed to begin a transition away from fossil fuels to avert the worstimpacts of climate change.

"It's clear that to achieve this transition, we need money, and lots of it -\$2.4tn, ifnot more", excluding China, Stiell said in prepared remarks, citing a reportreleased in December from the High-Level Expert Group on Climate Finance.

"Whether on slashing emissions or building climate resilience, it's alreadyblazingly obvious that finance is the make-or-

break factor in the world's climatefight — in quantity, quality, and innovation," he said. "In fact, without far morefinance, 2023's climate wins will quickly fizzle away into more empty promises."

Climate finance will be the main focus of the Azerbaijan-hosted talks, wheregovernments will be tasked with setting a new target post-2025 for raising moneyto support developing country efforts to cut emissions and adapt to the worseningimpacts of climate change.

Setting a new financial goal will be challenging given that countries only met lastyear a goal set in 2009 to mobilise \$100bn a year in climate finance by 2020.

"It's already blazingly obvious that finance is the make-orbreak factor in theworld's climate fight," he said, adding that without more finance, the winsachieved at the COP28 Dubai summit will fizzle out.

Stiell said that the year should be spent ensuring that the global financial systemand multilateral banks can meet the task of ramping up climate finance, and urgedbanks to triple the amount of climate grants and concessional finance by 2030and triple the rate of private capital they mobilise.

More broadly, he cautioned against taking "victory laps" after the UAE agreement, saying that the political agreement reached in Dubai enables countries to hidebehind "loopholes".

"The action we take in the next two years will shape how much climate-drivendestruction we can avoid over the next two decades, and far beyond," he said.

The world is currently far off track in delivering on its cornerstone climate deal, agreed in Paris in 2015.

Under the Paris Agreement, world leaders pledged to keep the rise in Earth'saverage temperature to "well below" 2.0° Celsius above the pre-industrial leveland preferably the much safer threshold of 1.5C.

The 2020s are critical for keeping that 1.5C target in view, with UN climate expertsestimating that planet-heating greenhouse gas emissions need to be slashed bysome 43% by

2030.

There is progress, with a surge in clean energy technologies like solar, wind andbatteries, as well as electric vehicles. However, emissions continue to rise.

A key challenge that is likely to take centre stage at this year's climate talks inBaku, as well as meetings of the World Bank and International Monetary Fund(IMF), is how to support emerging economies manage and pay for their transition to clean energy.

Many of these nations are currently mired in debt and facing a raft of challenges, from inflation to growing climate impacts.

Meanwhile global warming continues, with 2023 confirmed as the hottest everrecorded and experts warning 2024 could be even hotter.

The Earth is now about 1.2C warmer than it was in the 1800s.

This is already having an accelerating impact on people and ecosystems acrossthe planet, from heatwaves and droughts, to devastating floods and storms.

A damning appraisal of countries' decarbonisation efforts so far, released lastyear, showed the world heading for catastrophic planetary heating.

Stiell conceded it would take an "Olympian effort" to get the world on track.

One key task for countries will be to outline a new round of national climatetargets for 2035 ahead of a pivotal COP30 meeting, due to be held in Brazil in2025.

These pledges should be strengthened to align with the 1.5C goal, cover thewhole economy and all greenhouse gases, Stiell said.

"The action we take in the next two years will shape how much climate-drivendestruction we can avoid over the next two decades, and far beyond," he added.

# Freezing weather is knocking out millions of barrels of US oil output



The wintry weather that blanketed parts of Texas in snow and hammered North Dakota with extreme cold has knocked out millions of barrels of US oil production, and the industry is expected to need weeks to restore output to normal levels.

Production across the US was curtailed by about 10mn barrels this week, according to market participants who asked not to be named because the information is private. Losses in the Permian Basin of Texas and New Mexico are estimated at around 6mn barrels and shut-in output in North Dakota's Bakken is seen at close to 3.5mn barrels.

In Midland, in the heart of the Texas Permian, temperatures dipped below freezing in 11 out of the 19 days of this month. The cold has been especially bitter in past few days, with the

lows below 20F (-7C) for most of the week, according to Accuweather.

Extremely low temperatures freeze water at the wellhead, shutting in production. Icy roads make it diff icult for vacuum trucks — used to haul away waste water — to reach drill pads, causing drillers to either halt pumping or curtail rates, the people said.

The losses currently amount to lessthan 1% of total US crude production, which is around 13mn barrels a day, but they are expected to linger or even rise in North Dakota. In the city of Williston, at the centre of the Bakken formation, belowfreezing temperatures are expected

throughout the end of the month, posing continued challenges. Oil producers there may need at least a month to restore output to normal

levels after more than half of the state's flows were cut off this week, state off icials said.

Natural gas gathering systems that are connected to oil wells fill up with liquids during extreme cold, disrupting the operation of

compressors, said Lynn Helms, North Dakota's mineral resources director. Crude wells are then shut in to avoid flaring.

## Climate change march: From Paris to Glasgow



The latest IPCC report shows that we are dangerously close to 1.5C already. Every fraction of a degree matters

The COP26 climate conference will be a clarifying moment, poised between global co-operation and competition. As one of the key French officials tasked with delivering a deal at COP21 in Paris in 2015, I can attest to the weight of expectations placed upon this year's hosts, Italy and the United Kingdom.

The summit in Glasgow this November is by far the most fraught meeting of governments since Paris. Paradoxically, greater global integration continues alongside emerging fault lines, including the injustices of the Covid-19 pandemic and a growing desire for inward, nationalistic policies.

While global trade is on track to increase by 8% this year, after falling by 5.3% in 2020, the rollout of medical supplies along global supply chains has exposed deep sources of antagonism and rivalry. The issue of vaccine solidarity — compounded by wealthy countries earmarking trillions for their own economic recoveries — has seriously strained multilateral ties. COP26 is approaching under a cloud of tension.

This year's conference will test the spirit of co-operation that emerged in Paris, where — after several abortive efforts — 196 governments adopted the historic Paris accord and made "net zero" a geopolitical reality. The agreement has since provided the organising principle for all climate action — one that nation states, regions, cities, businesses, investors, civil society, and individuals all had a voice in, and can all act upon. This was people-powered multilateralism at its best. Six years later, we ought to be seeing a positive domino effect of bold pledges from states. Instead, we are watching a nervous game of poker. As with vaccines, wealthier countries are not sharing their wealth and technology.

Tellingly, the international community still has not met the Paris agreement's target of \$100bn per year for supporting climate investments in developing countries. This figure is a threshold, not an end goal: it is essential that we clear this hurdle for all parties at COP26 to know that wealthy countries mean business and are sincere in their solidarity.

Equally concerning is the absence of specifics for how G20 countries intend to meet abstract net-zero targets. Many remain fully locked into fossil fuels. Since these economies account for almost 80% of worldwide emissions, they must start including more concrete, comprehensive decarbonisation planning as part of their Nationally Determined Contributions (NDCs) under the Paris agreement.

The European Commission's new Fit for 55 plan shows how this can be done in a detailed, sector-specific way. Unfortunately, the European Union is the exception. Everyone else is still playing poker, even as the room fills up with water.

Just this year, climate-driven disasters have struck Brazil, Canada, Madagascar, China, Germany, Russia, the United States, and many others. There is no need to recall every cataclysmic weather event, because it is already sufficient to say that the problem has broken beyond our readiness.

As climate modelling improves, the path to remaining within 1.5C of warming is narrowing before our eyes. In early August, the latest report from the Intergovernmental Panel on Climate

Change (IPCC) showed that we are dangerously close to 1.5C already. Every fraction of a degree matters. The differences between a 1.5C world and a 2C world would be dramatic.

When we were negotiating the Paris agreement, the preceding G20 gathering was similarly fraught — some might say disastrous. Many felt the COP21 was doomed to fail as a result. But after weeks of intense work and dialogue, the Paris summit managed to exceed most expectations, mine included.

How can the UK and Italy steer the talks toward another successful outcome? If the parallels with 2015 offer any indication, the key for this final "sprint" is to emphasise that no-one, and no single country, can tackle the climate crisis alone. Because every single party to the United Nations Framework Convention on Climate Change has an equal say, any single signatory can cause negotiations to stumble. Good faith dialogue, concrete plans, and serious means to finance them are the only way forward.

There are some recent positive developments to build on. Earlier this year, South Korea and Japan — respectively the world's second- and third-largest coal financiers after China — both pledged to end their public coal investments abroad.

But there are also clear areas where governments have more work to do. According to the International Energy Agency, staying on track for net-zero emissions by 2050 requires that no new coal, oil, or gas projects be started after 2021. That means all of the world's largest emitters must immediately end coal investments abroad and clarify how they will phase out their own use of coal.

Only a sincere spirit of multilateralism can solve the imbalance at the heart of the climate crisis, the impacts of which are profoundly unfair. Countries that are hardly responsible for the problem's escalation are the ones facing the most severe, often existential risks. Why would small island states negotiate themselves into submersion?

The Paris agreement was only possible because of its commitment to multilateralism, and this remains the best guide

to ensuring its relevance. It is telling that soon after a G20 climate meeting delivered few tangible positives this year, the world's Least Developed Countries issued a statement calling on their wealthier counterparts to "take responsibility."

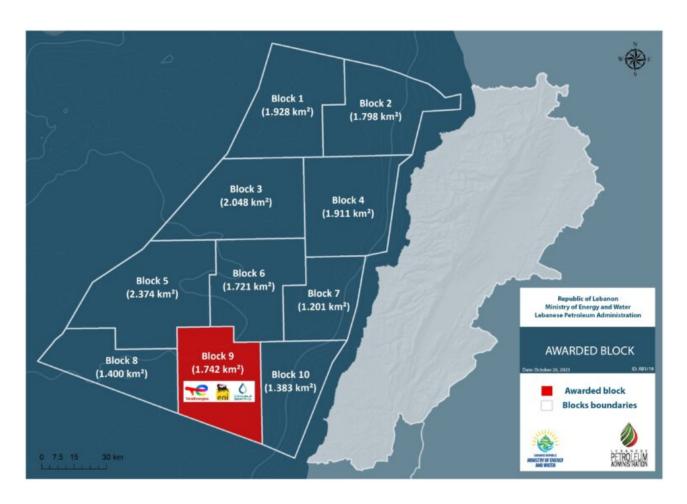
Sovereign, competitive impulses will always strain the space for cooperation. But within that space, there are ample opportunities to achieve positive-sum outcomes — in technological innovation and adoption, for example. These instincts are rooted in the national interest, and thus should be responsive to the fearsome, increasing prospect of overshooting 1.5C.

In this spirit, some concrete steps to defuse tensions at COP26 would include a dedicated item for meaningful discussions on "loss and damage," while this summer's ferocious weather events still loom large in everyone's memory. The conference also must press the issue of financing for climate adaptation efforts as part of the broader drive to meet the minimum \$100bn per year target. Finally, G20 countries that have not delivered their NDCs must do so as soon as possible, demonstrating that their policies are sufficient to keep the world on a 1.5C pathway.

G20 countries anxious to promote their role as climate leaders must listen carefully to the warnings from others, particularly those on the front lines. If we see momentum on these fronts between now and November, the UK and Italy could herald COP26 as a success, keeping the 1.5C goal in our sights. — Project Syndicate

l Laurence Tubiana, a former French ambassador to the United Nations Framework Convention on Climate Change, is CEO of the European Climate Foundation and a professor at Sciences Po, Paris.

## Lebanon launched its third offshore licensing round



- Deadline to place bids: 2 July 2024
- Blocks on offer: All unlicensed blocks
- Block 9 is currently the only licensed block
- The bids previously submitted by Total, ENI & QatarEnergy for Blocks 8 & 10 are still being evaluated. Decision expected by 5 Jan unless the deadline is extended again
- Total-ENI-QatarEnergy relinquished their rights in Block

## The War of the Straits: Impact on the World Energy Market



By Roudi Baroudi, TLN Senior Fellow

The recent significant disruptions in shipping through the Strait of Bab el Mandeb, situated between Yemen and Djibouti, underscore the geopolitical fragility of the waterway akin to that of the more widely acknowledged Strait of Hormuz. Among the six globally sensitive passages, including the Bosphorus, the Panama Canal and Malacca, the Middle East region boasts three critical and strategic maritime routes: the Suez Canal, Bab el Mandeb in the south of the Red Sea, and the Strait of Hormuz.

These passages witness the transit of not only crude oil and petroleum products but also liquefied natural gas (LNG). Bab

el Mandeb, with its unique characteristic as a transit route for both northbound and southbound traffic, plays a pivotal role. Approximately 12 percent of total seaborne quantities traded to Europe, the U.S. and key Asian markets, including China, India and Singapore, pass through the Bab el Mandeb Strait. Protecting the unimpeded flow of energy trade on a global scale is a vital commitment, essential for maintaining it sustainable, affordable and securing supply to the world.

Reflecting on the 1960s, when the Suez Canal faced disruptions during and after the 1967 war, several nations, notably Saudi Arabia, Kuwait, Qatar, the United Arab Emirates and Bahrain, collectively financed the construction of the SUMED pipeline. This double pipeline, stretching 320 kilometers from the Red Sea to the Mediterranean — passing entirely through Egypt, was instrumental in ensuring a continuous flow of approximately 2.5 million barrels of crude oil to Europe.

Saudi Aramco subsequently erected a dual pipeline from the Abqaiq Oil Field (in the east of the Kingdom) to the Yanbu Industrial Port (in the west), capable of transporting 5 to 7 million barrels per day. This strategic deterrent pipeline was a precautionary measure in case of a complete Strait of Hormuz closure. These initiatives not only protect the free trade of oil and gas but also underscore the significance of securing the unimpeded shipping of hydrocarbon products for reliable and secure energy trade.

In a similar vein, the U.S. has previously faced similar challenges and responded strategically. During the Tankers War, then-President Ronald Reagan initially ordered Kuwaiti tankers to be escorted, eventually extending the protection to all commercial ships navigating in and out of the Strait of Hormuz. This broad security measure included a 24-hour air surveillance conducted by AWACS planes.

Applying lessons learned, similar measures could be implemented in Bab el Mandeb, considering its geographical similarity to the Strait of Hormuz, with both having narrow

coast-to-coast widths at specific points. The minimum width of the Strait of Hormuz is 21 nautical miles, while Bab el Mandeb measures around 19 miles.

The significance of energy transit choke points through narrow channels cannot be overstated. As one-half of the world's crude oil supply relies on maritime transportation, protecting the free flow of oil and gas through maritime shipping routes is crucial for global energy price stability and security.

Dr. Roudi Baroudi, currently serves as CEO of Energy and Environment Holding, an independent consultancy based on Doha, has written extensively on the region, including "Maritime Boundaries in the Mediterranean: The Way Forward", a 2021 book that called for the very sort of creative diplomacy used to reach the Lebanon-Israel agreement. His latest book — "Climate and Energy in the Mediterranean: What the Blue Economy Means for a Greener Future" (published by the TLN this year and distributed by Eurospan). Baroudi is also a Senior Fellow at the Transatlantic Leadership Network, a Washington, DC-based Think tank. He is a recipient of TLN's 2023 "Leadership Award" for his ongoing work to promote peace and mutual cooperation in the Eastern Mediterranean.

Qatar suggests threepointagenda for equitable,
secureand sustainable
energytransition



Qatar has suggested three point-agenda, which includes greater investment in energy efficiency and low carbon innovation and coordinated policies and incentives, for equitable, secure and sustainable energy transition, which not only protects earth but also propels economic growth.

This suggestion was made by HE Saad bin Sherida al-Kaabi, Minister of State for Energy Affairs, at the ministerial session of the 17th Gulf Petrochemicals and Chemicals Association (GPCA) forum in the presence of Abdulaziz bin Salman al-Saud, Minister of Energy, Saudi Arabia; and Salim bin Nasser bin Said al-Aufi, Minister of Energy and Minerals, Oman.

Hamad Rashid al-Mohannadi, former general manager, Qatar Petrochemicals Company (QAPCO), was chosen for the fifth GPCA legacy award in recognition of extraordinary contributions to foster and strengthen the chemical industry.

The forum featured an exhibition that showcased new projects, industry journey, youth pavilion, sustainability district, cultural majlis and publications.

Highlighting that secure, equitable sustainable energy transition will not only help protect the planet but also provide economic growth; al-Kaabi said "to achieve this goal, we need to remain focused on three important areas that are essential in energy transitioning."

The first and foremost, according to him, was the greater

investment in energy efficiency and low carbon innovation.

This includes renewable energy integration, carbon capture and sequestration, low carbon solutions for reduced greenhouse gas emissions, and the carbon intensity in the chemical manufacturing, he said.

Other areas include optimising resources use, waste reduction, waste management and developing circular economies through improving recycling and the reuse of materials.

"We need coordinated policies and incentives to support the petrochemical industry's success," al-Kaabi said.

Terming the third enabler as awareness; he said it was not fair to put the onus on energy producers alone as there was a need for the real story to be told within workforce, across societies and among consumers about the critical role chemical industries plays in bettering lives worldwide.

In Qatar, the growth and evolution of petrochemical industry has been on a steady path of success, al-Kaabi said, adding the country is building the world's largest blue ammonia plant with annual 1.2mn tonnes capacity.

"This plant will be most sustainable facility of its kind. As part of this project, we are implementing CCS technologies to capture and sequester 1.2mn tonnes of carbon dioxide. Furthermore, the electricity for this project comes from a solar power plant currently under construction," he said.

He reminded that QatarEnergy in partnership with Chevron Phillips recently announced the start of the construction of two ethane crackers with a capacity of more than 2mn tonnes per annum each, one in Qatar and one in the US. The expected start is before the end of 2026, he added.

The Saudi oil minister said the demand for petrochemicals is expected to grow by more than 50% by 20240 with demand for basic chemicals such as ethylene and propylene slated to expand more than 60%, quoting market report and analysts.

The sector is also advancing through innovative technologies to maximise the yield of crude oil, he added.

# QatarEnergy integrates marketing activities of QatarEnergy LNG



QatarEnergy has integrated all marketing and marketing-related activities formerly managed by QatarEnergy LNG (previously Qatargas).

This is a major move towards consolidating QatarEnergy's position as a global energy leader and an important milestone to enhance the effectiveness of LNG (liquefied natural gas) marketing and sales from Qatar.

"Today's announcement is another important milestone that firmly positions QatarEnergy on the road to becoming one of the best energy companies in the world. This strategic step will enable us to deliver an unparalleled value proposition that is the backbone of our global reputation as a reliable and trustworthy energy provider," said HE Saad bin Sherida al-Kaabi, the Minister of State for Energy Affairs, also the President and CEO of QatarEnergy

With this integration, QatarEnergy leverages a combined set of technical, commercial, and financial capabilities to create an enhanced centre of excellence for the marketing and sale of all energy products exported from Qatar.

The move places QatarEnergy in a unique position to deliver unparalleled service and value to its customers and stakeholders, hence, reinforcing QatarEnergy's commitment to delivering excellence.

With this integration, QatarEnergy will offer an even more diversified and integrated portfolio of products and services, ensuring a seamless and enhanced customer experience. It will also be the sole point of contact for Qatar's existing and prospective energy customers globally.

"We all look forward to their continued commitment and dedication that will further strengthen Qatar's global LNG offering and generate value from a unified customer and stakeholder interface," al-Kaabi said.

### Europe's energy crisis is over



LONDON, Nov 28 (Reuters) — From mid-2021 until late 2022, Europe and parts of Asia were gripped by an energy crisis, as oil, gas, coal and power prices surged, in some cases to record highs, forcing households and firms to cut use rapidly.

Russia's invasion of Ukraine and sanctions imposed in response by the U.S. and its allies disrupted energy supplies that were already stretched by the rebound in industrial production after the coronavirus epidemic.LONDON, Nov 28 (Reuters) — From mid-2021 until late 2022, Europe and parts of Asia were gripped by an energy crisis, as oil, gas, coal and power prices surged, in some cases to record highs, forcing households and firms to cut use rapidly.

Russia's invasion of Ukraine and sanctions imposed in response by the U.S. and its allies disrupted energy supplies that were already stretched by the rebound in industrial production after the coronavirus epidemic.

But 18-24 months later, the acute phase of the adjustment is complete, with energy inventories comfortable and prices

reverting towards long-term inflation-adjusted averages.

Chartbook: Europe's energy supplies and prices

There will undoubtedly be more shocks in future, but the disruption associated with the end of the pandemic and Russia's invasion of Ukraine is over. Markets have adapted.

Europe's residual issue is that it has swapped relatively cheap Russian pipeline gas for relatively expensive LNG, putting its industrial competitiveness at risk, but that is a chronic problem rather than a crisis.

#### OIL

In the oil market, U.S. domestic crude and condensates production has continued to increase and surpassed its prepandemic peak in August 2023. Other non-OPEC production sources are also growing steadily.

High-frequency data from the U.S. shows commercial crude inventories were 12 million barrels (+3% or +0.26 standard deviations) above the prior ten-year seasonal average in mid-November, an indication the market is comfortably supplied.

Front-month Brent crude futures have averaged \$82 per barrel so far this month, exactly in line with the median since the start of the century after adjusting for inflation.

Brent's six-month calendar spread has traded in an average backwardation of \$1.57, only modestly above the long-term average of \$1.04.

By late 2022 and early 2023, fears about over-production and the potential accumulation of oil inventories had replaced concerns about insufficient supplies and the rapid depletion of stocks.

In response, Saudi Arabia and its OPEC+ partners have cut output multiple times to avert an incipient inventory build, in stark contrast to pressure on them a year earlier to raise

output to relieve anticipated shortages.

#### **GAS**

Rapid adjustment has also been evident in gas, where U.S. inventories have been consistently above the prior ten-year seasonal average since February 2023, and exports have increased to record rates.

Front-month U.S. gas futures prices have traded close to their lowest levels for 30 years, once adjusted for inflation, confirming the market is responding to an incipient surplus.

In Europe, gas storage has been at record seasonal levels continuously since the end of the first quarter of 2023 following an unusually warm winter in 2022/23 and sharp falls in industrial gas consumption.

Germany's energy-intensive manufacturing production is down by around 17% since the start of 2022 and shows no sign of recovering.

Total gas use in the European Union's top 7 consuming countries — Germany, Italy, France, Netherlands, Spain, Belgium and Poland — was down by 13% in the first nine months of 2023 compared with the pre-invasion ten-year seasonal average for 2012-2021.

Inflation-adjusted futures prices for the year ahead have averaged 48 euros per megawatt hour so far in November, down from 223 euros at the height of the crisis in August 2022.

In real terms, year-ahead prices have averaged 53 euros so far in 2023 compared with 23 euros in the five years between 2015 and 2019 and 32 euros between 2010 and 2014.

While prices are still high, they are no longer at crisis levels, and are likely to retreat further in the course of 2024.

#### COAL

An even more profound adjustment has occurred in coal, with demand falling sharply as gas supplies have become more plentiful while mine production has ramped up.

Real year-ahead prices for coal delivered to Northwest Europe have averaged just \$112 per tonne in November 2023 (69th percentile since 2010) from a record of almost \$300 per tonne in September 2022.

On the production side, China, the world's largest coal miner, increased output by 425 million tonnes (10%) in 2022 and has boosted it by another 144 million tonnes (4%) so far in the first ten months of 2023.

#### **ADJUSTMENT**

Each market has experienced a slightly different adjustment process, but all have been variations of faster production growth and slower consumption increases.

In oil, consumption has grown more slowly owing to a slowdown in the business cycle, while production outside OPEC+ has increased faster, pushing the market towards a surplus.

Russia's exports have remained high despite sanctions through avoidance (exploiting legal loopholes designed to keep exports flowing and increasing use of dark fleet tankers) and evasion (mis-declaring cargo prices).

In gas, Europe experienced an unusually warm winter in 2022/23 which cut consumption, and has also seen a large reduction in industrial demand from the most energy-intensive users as factories have suspended output.

Europe was able to replace piped gas from Russia with more LNG imports, outbidding other customers in South and East Asia in

winter 2022/23, forcing some of the adjustment burden onto poorer countries.

In coal, China's increasing mine output plus an exponential increase in renewable generation from wind and especially solar have eased shortages and enabled generators to boost fuel inventories.

Other factors that have contributed to the adjustment include high levels of hydro production in Brazil cutting the need for LNG imports, and an unusually mild autumn in Northwest Europe in 2023.

But the common factor is the enormous scale of the price rises in 2021 and 2022, which accelerated and telescoped the adjustment process into a relatively short period.

As a result, after a brutally painful adjustment in 2021 and 2022, production, consumption and inventories have become much more comfortable by the end of 2023 and into 2024, and the crisis phase is over.

## Cheap imports threaten US solar panel production boom



US companies have announced plans to build dozens of solar panel factories across the country since last year when President Joe Biden's signature climate law unleashed billions of dollars of subsidies, raising hopes a clean energy boom can provide tens of thousands of good paying jobs.

But global solar panel prices have collapsed due to a wave of new Asian production capacity in recent months, leading many in the US solar industry to worry many of these proposed factories may be uneconomical. As many as half may soon be delayed or canceled, a figure not previously reported, according to Reuters interviews with industry analysts, solar companies, and trade groups.

Changing market forces have already derailed solar manufacturing operations in Europe. In recent days, the US race for a clean energy transition has already been hit by huge writedowns and project cancellations the offshore wind industry.

"The more prices decline in the global market, the more difficult it is to build US local manufacturing," said Edurne Zoco, executive director for clean energy technology at S&P Global Commodity Insights. "If the cost gap between imported

modules and locally manufactured modules is too big ... many of these announcements might not happen."

Solar shipments into the US more than doubled through August to \$10bn from about \$4bn a year earlier, according to the US International Trade Commission.

The domestic industry's souring outlook could hurt Biden's climate agenda and hinder reelection efforts for a president who has hailed solar project plans as proof his clean energy policies can create millions of good-paying jobs.

US solar manufacturers and trade groups have said they need more government help at the federal and state levels or those jobs may not materialise, and the US will keep relying on panels made with mainly Chinese components. US officials have repeatedly warned that over-reliance on Chinese clean energy technology could pose a security risk similar to Europe's historical dependence on Russian natural gas.

A White House spokesperson did not respond to questions about recent market challenges facing domestic solar manufacturers, but said Biden's policies had generated a huge wave of investment and were revitalising American manufacturing.

Companies have announced over three dozen solar factories since passage of the Inflation Reduction Act in August 2022 that collectively promised to create 17,000 jobs and bring in nearly \$10bn in investment, according to projects tracked by the clean energy business advocacy group E2.

Of eight solar company representatives, trade groups and researchers who spoke to Reuters, all eight agreed the market has worsened. Energy research firm Wood Mackenzie shared its new forecast that just 52% of the 112 gigawatts of solar module capacity companies planned will be online by the target date of 2026, a projection it has not previously made public.

Mike Carr, executive director of the Solar Energy Manufacturers for America trade group, said factories could be delayed, extending US dependence on China.

"A misunderstanding of the policy opportunity here could really undermine a signature initiative of this administration, which is to restore manufacturing competitiveness to the United States, and particularly in such a key industry," Carr said.

Globally, the solar industry has already absorbed a 26% drop in panel prices this year to about 19 cents per watt, according to S&P Global Commodity Insights. US prices have been more resilient, but SEMA and analysts say spot prices are declining for those without long-term contracts.

The increase in solar imports stems partly from a

temporary waiver of tariffs on Malaysia, Thailand, Cambodia and Vietnam, which expires in June, 2024. Imports are also up sharply from India, Mexico and other nations unaffected by that move.

The IRA provides a decade of tax incentives worth 30% of a project's cost. But industry consultant Brian Lynch said that could be outweighed by the glut of cheap panels and worries about rising costs for labor, raw materials and financing.

"It's almost like Dr Jekyll and Mr. Hyde. The incentives to site and open up a US factory are phenomenal," Lynch said. "But if pricing is going to continue to go down, if the continued gamesmanship on the trade is going to continue, they can't justify it."

The US Commerce Department said imported panels and cells remained important to the clean energy transition.

"Commerce is committed to holding foreign producers accountable to playing by the same rules as US producers," a Commerce spokesperson said.

The IRA also contains a 10% bonus credit for panel manufacturers using American-made components. This perk is critical for domestic panels that may command a 40% price premium to imported alternatives, according to Wood Mackenzie. But so few components are produced domestically that much of the industry cannot secure that bonus. So far, solar module factory announcements have been more than double those for solar cells, the crucial components that transform sunlight into energy.

The industry needs more government help, including "the right tax and trade policies that build on the IRA and similar state

laws that create the space for emerging US solar manufacturers to compete on a global scale," said Danny O'Brien, president of corporate affairs at Hanwha Qcells, which is making one of the largest investments in the domestic solar supply chain.

Meyer Burger, which plans to build a factory in Colorado, said the government needs to help domestic manufacturers deal with "underpriced products that are coming from Asia".

The Solar Energy Industries Association (SEIA), a large solar trade group that has long opposed tariffs, is also advocating for more support for manufacturers, warning it does not expect that every proposed factory will be built.

Convalt Energy plans next year to open 2 gigawatts of module capacity in New York and Maine followed by a facility for components in 2025. CEO Hari Achuthan said module production lines are already about four months behind schedule because the company's financiers are waiting for the Treasury Department to issue crucial rules on how to secure the IRA tax credits.

"Our country has done a phenomenal job seeing through the IRA bill. But now it's going to come down to the details of the IRA and how we execute it and the support that we need to get from the Commerce Department and anybody else with regard to tariffs on imports," he said. — Reuters

### Regional Energy Expert Roudi Baroudi Earns Award from Washington Think Tank

