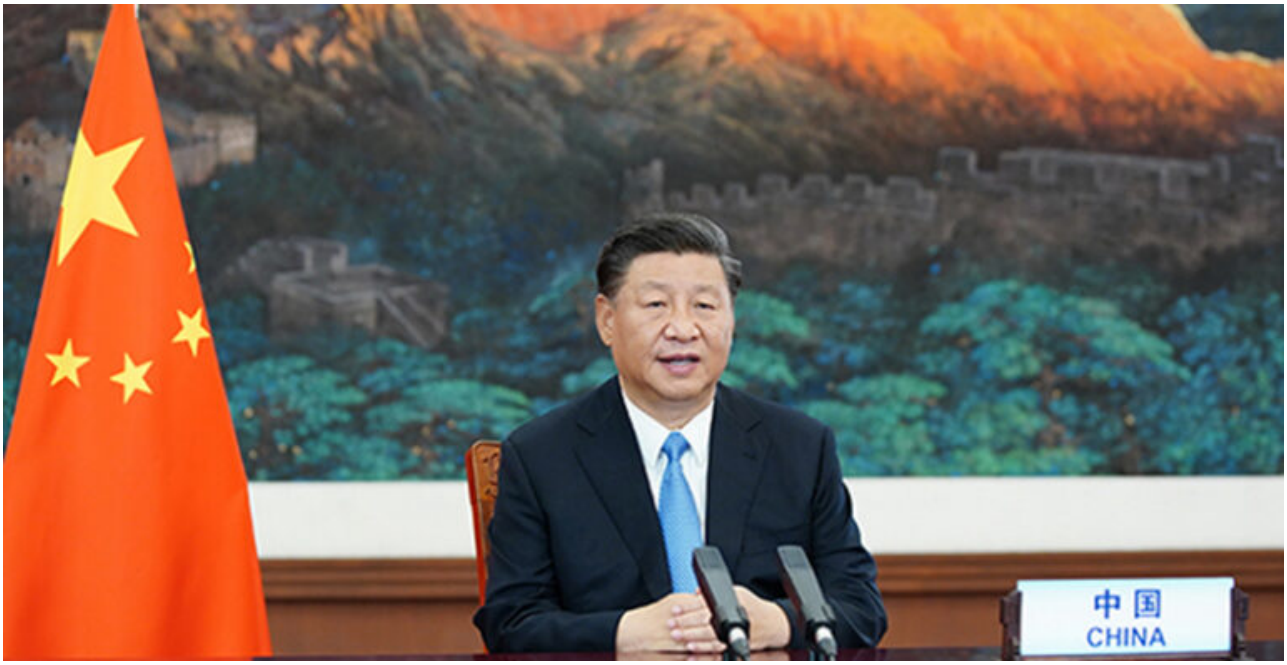
How China Plans to Become Carbon-Neutral by 2060



China’s industrialization has occurred at a breathtaking pace, lifting hundreds of millions out of poverty and transforming the country into the world’s factory floor. That’s also made it the biggest emitter of carbon dioxide, the main greenhouse gas driving climate change. The most-populous nation has set itself the ambitious goal of becoming carbon-neutral by 2060, a challenging target given it hasn’t even reached its emissions peak. To get there, President Xi Jinping wants to transition away from an economy reliant on coal and other fossil fuels by switching to renewable energy and developing new technology to capture emissions.

1. What is carbon neutral?

It means cutting as much of your carbon dioxide emissions as possible and then offsetting what you can’t eliminate. For a country, this could mean switching to renewable energy such as solar power instead of coal and investing in projects that absorb carbon dioxide, such as reforestation. Carbon neutral has become a goal of companies and countries alike to address

public concerns about the impact emissions have on the climate.

2. What is China’s goal?

Even though China is the world’s second-largest economy, it’s still classified as a developing nation and hasn’t reached its emissions peak. That’s forecast to come by 2030, with Xi committing to carbon neutrality by 2060, 10 years after the U.S. deadline set by President Joe Biden. If China pulls it off, it would be the fastest decline from peak emissions among major economies, speedier than Europe’s goal of 70 years and the US target of 40 years. China’s plan, which the country’s climate envoy said includes all greenhouse gases and not just carbon dioxide, would boost global efforts to limit the rise in temperatures and potentially give it greater sway in global matters.

3. What needs to be done?

China has to find replacements for the fossil fuels that have powered its economy and rapid urbanization. A key early step was taken in July when China opened the world’s largest carbon trading market, creating a framework for how emissions are priced and regulated in the country. It’s already pushing the expansion of electric vehicles and automation while investing in nuclear power, which doesn’t emit greenhouse gases. There is more spending on research into technologies such as storage batteries and using hydrogen as a fuel to complement low-emissions energy sources. The government will have develop more wind and solar power projects so that coal-fired plants play a smaller role in generating electricity. Local authorities have been told to develop regional plans to lower emissions and some have already taken measures to curb what they perceive as wasteful uses of electricity, such as Bitcoin mining.

The ruling Communist Party of China has an overarching goal of

creating a “great modern socialist country” to ensure a prosperous life for its citizens. That’s a mantra that has required continuous economic growth and led to increased pollution. Breaking the link between growth and emissions will require policies that take aim at fossil fuels and encourage development of renewable energy. Monetary policy will need to be adjusted if the transition causes inflationary pressure. Beijing will also need to support vulnerable sectors and regional economies during the decarbonization process. For example, the coal industry in Shanxi contributes 20% of the province’s revenue, according to PingAn Securities chief economist Zhong Zhengsheng.

5. What will be the economic impact?

Services and high-technology will have to boost their contribution to the economy, a move that could unleash investment demand of as much as 300 trillion yuan ($46.3 trillion), according to the People’s Bank of China. The central bank has said a big chunk of the funds will come from market investors but a policy framework encouraging private investment will be important. That is in addition to cleaner air, improved road safety and prevention of potential climate damage that the World Bank said could be worth 3.5% of gross domestic product by 2030. Such benefits have to be weighed against the impact on ordinary Chinese people of an economic restructuring that phases out jobs in carbon-emitting sectors, with the coal mining and processing industry employing 3.5 million workers alone.

6. Who are the biggest losers?

China’s 2,200 electricity utilities powered by fossil fuels, a group that accounts for almost half of the carbon China spews into the atmosphere and 14% of the world’s total, are among the first to feel the impact through the country’s carbon market. Power is one of the eight industries that account for nearly 90% of its carbon emissions, a group that also includes

steel, construction materials and transport, according to a report by China International Capital Corp. Eliminating their dependence on fossil fuels will require a move to cleaner sources such as wind and solar and spending on mitigation measures or carbon offsets. Regional Chinese economies that rely heavily on fossil fuel production, such as Shanxi and Inner Mongolia provinces, will also be affected.

7. Who stands to benefit?

Electric-vehicle makers are one of the high-profile beneficiaries of China's plan thanks to government subsidies. Beijing has set a target of having new-energy vehicles account for 20% of sales by 2025 compared with 6% in 2020. Utilities that make the shift to renewable sources will also benefit, along with providers of services such as emission measurement and carbon trading, according to Nannan Kou, head of China research for BloombergNEF. Other winners could include makers of photovoltaic systems, recycling firms and producers of new materials and non-ferrous metals for electric vehicle assembly.

8. What role will the central bank play?

China's goal of carbon neutrality is shared across China's key institutions and is a top priority for the PBOC. The central bank removed so-called clean-coal projects from its definitions of green bonds while pledging to revamp tools so it can offer cheap funds for banks to encourage more environmentally focused loans. Regulators also plan to adjust the rules on capital adequacy and how it counts green assets. At the end of March, China's outstanding green loans stood at 14 trillion yuan, an amount set to expand at a rapid pace.

9. Will private banks play a role?

Banks will need to change who they lend to and balance how their loans mesh with Beijing's climate ambitions. The high capital cost of building power plants, steel mills and

factories mean companies in those sectors often carry significant financing needs and any rapid change could affect their ability to manage credit risks, according to Zhou Xuedong, executive vice president at National Development Bank and a former senior PBOC official. He said a climate-change stress test for financial institutions will be necessary.

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Rising LNG imports provide scant relief for Europe power crisis

Reuters/London

Europe’s imports of liquefied natural gas (LNG) are picking up as winter approaches but there is little relief for the

region’s power crunch because competition with Asia for supplies is so intense.

Power and gas demand has spiked due to low inventories and surging requirements in Asia and Europe as economies recover from the Covid-19 crisis.

Cold weather in the northern hemisphere has also increased demand for power, prompting buyers to be more active on the spot market to bridge supply gaps and driving LNG prices to record levels.

Wholesale gas markets are reflecting that, with benchmark European TTF values hitting all-time highs.

Asian spot LNG prices hit a record peak of above $56 per million British thermal units (mmBtu) earlier this month.

Prices have since retreated slightly to around $30 per mmBtu, but are still up 500% from last year.

Northwest Europe’s LNG imports over the January-September period were down by 5.5mn tonnes from levels seen a year earlier, but have picked up since the start of the winter gas season which runs from October to March, when there is higher demand.

Competition between Europe and Asia and a spike in global gas prices saw European TTF and Asian JKM LNG benchmark prices chase each other higher, with the latter priced at a premium to TTF, drawing more supply to Asia rather than Europe.

As a result, northwest Europe is unlikely to see a strong flurry of LNG supply to help ease prices.

“Our latest balance calls for net LNG deliveries to Northwest Europe, in Belgium, France, Netherlands and the UK, this winter to average 114mn cubic metres per day, roughly in line with year ago levels of 116mn cubic metres per day,” said Luke Cottell, LNG analyst at S&P Global Platts.

Asia is home to the world’s three biggest LNG buyers, China, Japan and South Korea, who tend to keep buying throughout the winter. European gas storage levels were well below where they should have been at the start of the winter season on October1, pushing European buyers to compete aggressively for spot cargoes.

“Competition from Asia for flexible Atlantic Basin LNG is expected to be robust, with Northwest Europe facing challenges in competing with largely price insensitive Northeast Asian buyers who have continued to procure spot cargoes despite record high JKM,” said Samer Mosis, manager of global LNG analytics at S&P Global Platts.

Usually, when Asian LNG and TTF prices are so closely coupled, US LNG sellers would favour sending cargoes to Europe to save shipping time and costs, said Robert Songer, LNG analyst at commodities intelligence firm ICIS.

But that is not the case this year.

ICIS’s LNG Edge shipping platform shows that China, Japan and South Korea have all imported more US LNG than in any previous year, while Atlantic Basin importers like Spain, France and the UK have all seen smaller portions of US cargoes.

North American LNG exporters have been adding to capacity because of demand in major Asian economies.

US exports of LNG are expected to average 9.7bn cubic feet per day (Bcf/d) this year, 3.2 Bcf/d higher than the 2020 record high of 6.5 Bcf/d.

This year, the United States’ exports of LNG are also expected to exceed its annual pipeline exports of natural gas for the first time, the US Energy Information Administration (EIA) said in a report.

But with the bulk of US exports destined for Asia, Europe’s best hope for significantly boosting supplies may be a mild winter in China, which is hard to predict, analysts said.

“As long as unexpected cold from the La Nina (weather) system doesn’t see China keep outbidding Europe for cargoes, there is certainly some avenues for more gas to land in Europe in the coming months,” said Ryan McKay, commodity strategist at TD Securities.

Wall Street hails a new era of oil prices: Higher for longer

Could the era of cheap oil supply be gone for good?

That’s the conclusion of some of the biggest commodities desks on Wall Street, where banks have been lifting their long-term price forecasts, often by $10 or more.

While the US shale boom brought about a “lower-for-longer” mantra, the market is now fixated on climate change and the dwindling appetite to invest in fossil fuels. Instead of growing supply, companies are under pressure to limit their spending, causing a structural under-investment in new production that — the argument goes — will keep oil prices higher for longer.

“My advice to clients is that you want to stay long oil until you know where that equilibrium price is” that brings new supplies online, said Jeff Currie, head of commodities research at Goldman Sachs Group Inc. “We know it’s above these levels because we haven’t had a big uptick in capex and

investment.”

The notion of a supply gap is nothing new. Since prices crashed in 2014, analysts have talked up the potential for demand to outstrip production as a result of underinvestment. But the rout in energy prices from Covid-19, combined with pressing environmental concerns, offer reason to think this time is different.

The number of oil and gas drilling rigs globally may have recovered from the lows of when oil prices turned negative last year, but they are still down more than 30% on the start of 2020. Current figures are about as low as they were in 2016, according to Baker Hughes Co., despite headline crude prices being near a seven-year high.

Future View

Among the banks seeing higher prices for longer, Goldman says $85 for 2023. Morgan Stanley bumped what it calls its long-term forecast up by $10 to $70 this week, while BNP Paribas sees crude at almost $80 in 2023. Other banks including RBC Capital Markets have talked up the prospect of oil being at the start of a structural bull run.

Such estimates imply that a commodity vital to the global economy has become structurally more expensive. Oil price expectations underpin hundreds of billions of dollars of equity valuations for major international oil companies like Royal Dutch Shell Plc and BP Plc.

There’s an ever-dwindling appetite to lend on the part of investors too. In the last week alone, the largest French banks said they would curb the financing of the shale oil and gas industry from early next year. Ecuador recently had to double the amount of banks that could provide it with credit guarantees as financial institutions shunned crude harvested from the Amazon.

Unsustainable

Not everyone supports the idea that prices can be stay at elevated levels. Citigroup Inc. said in a report this month that crude below $30 and above $60 looks unsustainable in the long-term. A prolonged price above $50 could add 7 million barrels a day of extra supply, the bank's analysts including Ed Morse wrote in a note.

"Mid-term, cost indicators keep pointing to a fair-value range between $40-$55 a barrel," they said.

But others see a tide that's turning, especially given changes in the U.S., which has effectively become a swing producer in recent years.

On one front, publicly listed U.S. shale companies remain constrained in growing production. When EOG Resources Inc. said in February that it planned to grow output its shares fell the most of any company on the S&P 500. There have been few, if any, similar comments from producers since.

Alongside that, the impact of field declines is growing clearer. In November, the Permian Basin was the only onshore U.S. field to show meaningful year-on-year production growth. All others were either flat or down, according to an Energy Information Administration report.

Similarly, while some of the key OPEC+ producers find themselves with spare capacity that they can dip into next year, others including Nigeria and Angola are already showing signs of struggling to lift production further.

"People have become very comfortable with the idea that shale will be there and we're not resource constrained," said David Martin, head of commodities desk strategy at BNP Paribas. "That's a question mark in my mind."

And in a world spending less money on fossil fuels, questions

then turn to demand, which doesn’t look like peaking any time soon.

The International Energy Agency said earlier this month that spending on fossil fuels is lower than needed if current demand growth continues. It only sees oil demand starting to decline in the 2030s under current policies. However, Morgan Stanley estimates that supply could stop expanding by 2025, leaving a sizable gap.

“We are running at net-zero type capex levels, whilst at the same time demand is not following the net-zero trajectory,” said Martijn Rats, an oil strategist at the bank. “Demand will be above 100 million barrels a day for the rest of the 2020s, but on the supply side we’re not going to produce that with current investment levels.”

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Top oil exporter Saudi Arabia targets net zero emissions by 2060

RIYADH, Oct 23 (Reuters) – Saudi Arabia’s crown prince said on Saturday that the world’s top oil exporter aims to reach “net zero” emissions of greenhouse gases, mostly produced by burning fossil fuels, by 2060 – 10 years later than the United States.

He also said it would double the emissions cuts it plans to achieve by 2030.

Crown Prince Mohammed bin Salman and his energy minister said Saudi Arabia would tackle climate change, but also stressed the continued importance of hydrocarbons and said it would continue to ensure oil market stability.
They were speaking at the Saudi Green Initiative (SGI) ahead of COP26, the United Nations climate conference in Glasgow at the end of the month, which hopes to agree deeper global emissions cuts to tackle global warming.

The United States, the world's second-biggest emitter, is committed to achieving net zero, meaning that it emits no more greenhouse gases than it can capture or absorb, by 2050. But China and India, the world's biggest and third-biggest emitters, have not committed to this timeline.
Amin Nasser, chief executive of the state oil giant Saudi Aramco, said it was counterproductive to "demonise" hydrocarbons. He said Aramco aimed to expand its oil and gas production capacity while also achieving net zero emissions from its own operations by 2050.

Prince Mohammed said in recorded remarks that the kingdom aimed to reach net zero by 2060 under its circular carbon economy programme, "while maintaining its leading role in strengthening security and stability of global oil markets".
He said Saudi Arabia would join a global initiative on slashing emissions of methane by 30% from 2020 levels by 2030, which both the United States and the EU have been pressing.

U.N. Secretary General Antonio Guterres, in a phone call with Saudi King Salman bin Abdulaziz, welcomed the kingdom's initiatives to reduce emissions, state media said. L1N2RJ0FB

'HYDROCARBONS STILL NEEDED'
The SGI aims to eliminate 278 million tonnes of carbon dioxide emissions per year by 2030, up from a previous target of 130 million tonnes. The crown prince said the SGI initiative would involve investments of over 700 billion riyals ($190 billion) in that time period.

Saudi Arabia's economy remains heavily reliant on oil,

although the crown prince is trying to promote diversification.

Energy minister Prince Abdulaziz bin Salman said the world needed fossil fuels as well as renewables.
“It has to be a comprehensive solution,” he said. “We need to be inclusive, and inclusivity requires being open to accept others’ efforts as long as they are going to reduce emissions.”

He said the kingdom’s younger generation “will not wait for us to change their future”.
He said net zero might be achieved before 2060 but the kingdom needed time to do things “properly”.

The non-profit Climate Action Tracker consortium gives Saudi Arabia its lowest possible ranking, “Critically insufficient”.
Saudi Arabia’s first renewable energy plant opened in April and its first wind farm began generating in August.
It does, however, have plans to build a $5 billion plant to produce hydrogen, a clean fuel, and state-linked entities are pivoting to green fundraising.

Reporting by Yousef Saba and Saeed Azhar in Riyadh, Marwa Rashad in London and Maher Chmaytelli in Dubai; Additional reporting by Raya Jalbi in Dubai; writing by Ghaida Ghantous; Editing by Jason Neely, Kevin Liffey and William Mallard
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الوسيط الأميركي يلتقي مسؤولين لبنانيين ويبحث ملفي الطاقة

وترسيم الحدود

التقى الوسيط الأميركي الجديد في عملية التفاوض غير المباشر بشأن ترسيم الحدود البحرية الجنوبية بين لبنان وفلسطين المحتلة آموس هوكستاين، اليوم الأربعاء، بعدد من المسؤولين اللبنانيين الكبار وبحث معهم ملفي الطاقة وترسيم الحدود.
والتقى هوكستاين برئيس الجمهورية ميشال عون ورئيس الوزراء نجيب ميقاتي ورئيس البرلمان نبيه بري.
واستقبل عون، قبل ظهر اليوم، هوكستاين، الذي يعد أيضًا كبير مستشاري وزارة الخارجية الأميركية لأمن الطاقة، بحضور السفيرة الأميركية دوروثي شيا، وعرض معه مسار عملية التفاوض بشأن ترسيم الحدود البحرية مع الاحتلال الاسرائيلي والتوجهات المقبلة في هذا الملف، بحسب ما أفاد بيان الرئاسة اللبنانية.

[illegible] *pic.twitter.com/kvsapSwwUg*

Lebanese Presidency (@LBpresidency) October 20, 2021 –

وقال المستشار الإعلامي في رئاسة الجمهورية رفيق شلالا، لـ"العربي الجديد"، إن "الجانبين بحثا مسار المفاوضات والتوجهات في المرحلة المقبلة على صعيد ملف ترسيم الحدود البحرية"، مشيرًا إلى أن

الرئيس عون أكد على ضرورة استئناف التفاوض غير المباشر وتعويله على دور الوسيط الأميركي الذي أكد أنه سيبذل جهده ويواصل اتصالاته بغية تكوين المعطيات الكاملة.

وعلى صعيد التغييرات التي ستطرأ على الوفد اللبناني المفاوض بعد إحالة رئيسه العميد الركن الطيار بسام ياسين إلى التقاعد، أكد شلالا أن "لا شيء رسميا بعد بخصوص هذا الموضوع".

من جهته، أشار رئيس مجلس النواب نبيه بري إلى أن لبنان أمام فرصة جديدة لاستئناف المفاوضات في الناقورة (جنوب لبنان)، مع المساعي الأميركية الجديدة التي تبذل في هذا الإطار.
وبجسب بيان المكتب الإعلامي لرئيس البرلمان، فإن بري أكد خلال لقائه الوسط الأميركي أهمية استثناء لبنان من ضوابط "قانون قيصر" في موضوعي استجرار الغاز المصري والكهرباء من الأردن، مشيراً إلى أن هوكستاين عكس للرئيس بري أجواء تفاؤلية بالتقدم إيجاباً حول هذين العنوانين، كما جرى التأكيد على اتفاق الإطار الذي أعلن في أكتوبر/تشرين الأول من العام الماضي.
وفي سياق آخر، وقع بري، اليوم، القانون الرامي إلى تعديل قانون انتخاب أعضاء مجلس النواب وأحاله إلى رئاسة مجلس الوزراء مع التأكيد على ضرورة استعجال إصداره، كما دعا إلى عقد اجتماع لهيئة مكتب مجلس النواب يوم الإثنين المقبل تمهيداً لعقد جلسة تشريعية.

وعلم "العربي الجديد" من مصدر عسكري مطلع على الملف، أن "الوفد اللبناني المفاوض دخل في إجازة منذ فترة"، مشيرًا إلى أن "الملف وعلى الرغم من أهميته والمكاسب الاقتصادية للبنان منه، إلا أنه ليس على رأس أولوية الاهتمامات عند المسؤولين السياسيين، وهو ما ينعكس سلباً على البلاد، ولا سيما أن العدو لا يضيع وقتاً أو فرصة لاستغلال الوضع المتوتر على الساحة اللبنانية الداخلية والصراعات المستمرة والمتجددة بينما هو يعتدي على حقوق لبنان النفطية وعلى مرأى من الجميع".
وكان الاحتلال الإسرائيلي قد منح أخيرًا شركة "هاليبرتون" الأميركية عقداً للتنقيب عن النفط في منطقة تقع على الحدود البحرية المتنازع عليها، ما دفع لبنان إلى الطلب من مجلس الأمن "التأكد من أن أعمال تقييم التنقيب لا تقع في منطقة متنازع عليها بين لبنان والاحتلال، بغية تجنب أي اعتداء على حقوق وسيادة لبنان، إضافة إلى منع أي أعمال تنقيب مستقبلية في المناطق المتنازع عليها تجنباً لخطوات قد تشكل تهديداً للسلم والأمن الدوليين".

ويقول الخبير في شؤون الطاقة الدولية رودي بارودي، لـ"العربي الجديد"، إن "أي بحث عبر الوسيط الأميركي في أي فكرة اقتصادية أو تجارية غير وارد قبل ترسيم الحدود بشكل محترف ورسمي، لكن في المقابل، يمكن الاتفاق مع شركة خاصة مستقلة لتنفيذ أعمال التنقيب في حال التثبت من وجود نفط أو غاز، وذلك كما حصل في حقل الخفجي المشترك بين الكويت والسعودية، على أن يأخذ كل طرف حصّته".
ويرى بارودي أنه "من المبكر الحديث عن أي خطوة طالما أن ترسيم الحدود البحرية لم ينجز"، مشيراً إلى أن "هناك حقوقا للبنان يجب أن يحصل عليها"، مؤكدًا أن "المطلوب اليوم تأمين الدعم الكامل للجيش اللبناني عند استئناف المفاوضات التي يجب أن تحكمها فقط الاتفاقيات الدولية واتفاقية الأمم المتحدة لقانون البحار والتي تصبّ في صالح لبنان وتعطيه حقه الكامل والعادل".
ويؤكد بارودي أن "الاجتهادات الدولية تعطي لبنان حقه، خصوصاً أن القرارات لا تقيم وزناً للجزر الصغيرة، ولا تعتبر قادرة على دفع أو إزاحة أي خط بحري واحد مقابل الخط الآخر، وبالتالي فإن الصخور والجزر الصغيرة لا تؤخذ بعين الاعتبار عند ترسيم الحدود، وهو ما يعطي لبنان مساحة هي من حقه ومعترف بها دولياً".
ويلفت الخبير الدولي إلى أن "لبنان عام 2010 اعتمد من أجل البدء بالترسيم 61 متراً في البحر بدءاً من رأس الناقورة جنوباً، أما العدو الإسرائيلي فقد اعتمد في العام الذي يليه 37 متراً في البحر"، مشيرًا إلى أن الطرفين "أخطآ في البدء بالترسيم من خط بحري (أوف شور)، وعليهما اعتماد خط الناقورة البري الفاصل، وبالتالي فإن الطرفين مجبران على ترسيم الحدود وتحديد خطوط جديدة"، فيما أكد أن "الموقف الأميركي لا يمكنه إلا اقتراح خط عادل ومنصف وتبعاً لقانون الأمم المتحدة للبحار، إذ لا يمكنه الالتفاف حوله".
ويرى بارودي أن "موقف لبنان قوي بحقوقه التي تحفظها له القوانين والاتفاقيات الدولية، بيد أنه ضعيف على مستوى الداخل نتيجة الصراع والمناكفات السياسية التي تحرم اللبنانيين من فرص كثيرة وثروات هي حق لهم، وهو ما حرمهم سابقاً من خط الغاز العربي الذي كان من شأنه أن يحلّ أزمة الكهرباء".

ويشير إلى أن "المسّ بالوفد اللبناني العسكري أو تغيير أعضائه سيكون بمثابة ضربة قوية ترتد سلباً على موقف لبنان في المفاوضات وتلحق به خسائر جمّة بالنظر إلى أهمية ترسيم الحدود اقتصادياً".
وما زال الرئيس اللبناني يرفض منذ إبريل/نيسان الماضي التوقيع على تعديل المرسوم الذي يصحح حدود لبنان البحرية ومن شأنه أن

يعطي البلاد الحق بالتفاوض على نسبة من حقوقه من حقل كاريش الذي يستثمره الاحتلال الإسرائيلي.

Natural gas answer to energy crunch, transition, says GECF secretary-general

Gas Exporting Countries Forum (GECF) secretary-general Yury Sentyurin said the current energy crunch around the world and the intensifying climate change debate serve to highlight the serious need to embed natural gas as part of a long-term solution to energy market stability and transition.

He was addressing a session at the Russian Energy Week (REW) held in Moscow from October 13 to 15.

Joining the panel on 'International Energy Organisation Dialogue: Predicting the Development of Energy and Global Markets', Sentyurin stressed that "gas was, is, and will remain the most realistic option to attain the energy transition, spur economic growth and social progress."

He said, “The long-term solution provided by natural gas is available in the GECF’s flagship publication of Global Gas Outlook (GGO) 2050, which foresees natural gas becoming the primary energy mix of the world by 2050 and increasing its present share from 24% to 27%.”

The GGO, featuring multiple contexts on gas’ growth and role in the energy mix, is now underpinned by very strong analytical effort on new scenarios, such as the Energy Transition Scenario, and Hydrogen Scenario, to name a few. The latest findings will be launched in the 6th edition of the GECF Global Gas Outlook 2050 in February 2022.

“We are championing gas for post-Covid-19 recovery and achieving the UN Sustainable Development Goals. The gas industry is of course also looking at innovation to transform this natural resource into a sustainable fuel, using such methods as green LNG, carbon capture, hydrogen, ammonia, and methane emissions reduction.”

“One of the most sensible, economically-viable way to achieve sustained energy market stability, inclusive economic growth and Sustainable Development Goals is to consider natural gas as a destination fuel,” Sentyurin told the panel. “Natural gas remains one of the global enablers for reducing emissions quickly, cost-effectively and steadfastly by replacing carbon-intensive fuels as well as backing up intermittent renewables”

Addressing the panel, Mohamed Sanusi Barkindo, secretary-general, Opec, elaborated on Opec’s latest World Oil Outlook (WOO), whose 15th edition was unveiled two weeks ago.

“The projections show that nearly all sources of energy will grow over the next quarter of a century…Oil and gas together will provide nearly 53% of the world’s energy needs in 2045 – a little over 28% for oil and 24% for gas,” he said in his remarks.

“As an African, I know very well that we need to harness all the energy resources at our disposal, from the sun over our heads to the abundant fuels that lie beneath our feet, if we are to ease energy poverty and develop our continent’s economies.”

La Cop26 di Glasgow: le linee guida per i Paesi del Mediterraneo

Il noto esperto a livello internazionale in campo energetico Roudi Baroudi, pone in evidenza una riflessione in concomitanza con l'imminente arrivo della conferenza sul cambiamento climatico delle Nazioni Unite (COP26) che si terrà quest'anno a Glasgow.

Baroudi definisce questo appuntamento memorabile e storico in particolare per i paesi del bacino del Mar Mediterraneo, Italia compresa. Fa osservare che l'aumento delle temperature e la crisi climatica globale è in atto e gli eventi dell'estate 2021 ne sono la testimonianza reale.

Il fenomeno degli incendi, per esempio, si manifesta con dimensioni e intensità insolite rispetto al passato ed anche nel caso di attività dolosa l'aridità circostante e le alte

temperature hanno favorito la propagazione violenta nelle aree colpite generando numerose morti, danni alle proprietà e distruzioni dei terreni agricoli coltivati. In casi come quello della Turchia seguiti da forti inondazioni dovute a piogge torrenziali dopo pochi giorni.
Questi fenomeni non sono più eventi sporadici localizzati in determinate aree, ma costituiscono una vera e propria testimonianza della catastrofe climatica in atto.

Questo ci impone di moltiplicare gli sforzi e sperare di poter invertire la tendenza prima che raggiunga un punto di non ritorno. Se non andremo in questa direzione, continua Baroudi:" la nostra specie dovrà affrontare un futuro sempre più complesso con più incendi, innalzamento del livello del mare, accelerazione dell'acidificazione degli oceani, calo degli stock ittici, tempeste più violente, siccità più lunghe e intense, raccolti compromessi, milioni di rifugiati climatici e fame di massa".
Svariati paesi del Mediterraneo, specialmente appartenenti ad Asia ed Africa hanno già situazioni complesse dal punto di vista territoriale per via della posizione geografica (Sud Italia incluso), inoltre i paesi con meno disponibilità economica fanno ancora molta fatica nella conversione ad impianti con minor impatto ambientale.

Nonostante questo scenario apocalittico, incalza Baroudi, non tutto è perduto. L'Unione europea ha compiuto progressi importanti rispetto alla maggior parte del resto del mondo e sta adottando delle politiche più stringenti sulle emissioni.

Anche gli Stati Uniti stanno intensificando i propri sforzi dopo quattro anni di cambio rotta sotto l'amministrazione Trump. In tutto il mondo, finalmente, si sta avendo maggiore consapevolezza del problema in maniera più trasversale dal pubblico al privato.

Alla COP26, i leader ed i referenti politici dei paesi partecipanti dovrebbero lavorare costruttivamente ed ascoltare scienziati ed attivisti che chiedono un'azione più rapida ed efficace, inclusa una maggiore assistenza finanziaria per

aiutare i paesi meno fortunati a unirsi seriamente alla lotta per il cambiamento climatico.

I programmi che i paesi del Mediterraneo porteranno a Glasgow saranno cruciali perché, nonostante la situazione in atto, la maggior parte di questi stati ha un vantaggio territoriale: ampi spazi e condizioni quasi ideali per le turbine eoliche offshore. Uno studio recente, che utilizza una varietà di tecnologie per elaborare dati previsionali, stima il potenziale combinato di energia eolica di tutti i 23 paesi euro mediterranei (in modo alquanto prudente) a quasi 1,5 milioni di megawatt. Si consideri che l'intera industria nucleare mondiale ha una capacità di circa 400.000 MW, ovvero meno di un terzo di quella che il Mediterraneo potrebbe produrre solamente con impianti eolici. Senza calcolare l'impiego di altre tecnologie: l'idrocinetica sia fluviale che marina (onde e maree), geotermica (on e offshore) e solare (200.000-300.000 MW).

Questa strategia darebbe una propulsione allo sviluppo di molti paesi che oggi hanno uno scarso accesso all'energia elettrica a prezzi accessibili, inoltre l'indotto relativo alle costruzioni degli impianti darebbe nuovi posti di lavoro oltre a molteplici benefici: la possibilità di sostituire i vecchi impianti di produzione più inquinanti, ridurre gradualmente l'importazione di carburanti fossile, rivendere nella rete l'eccesso di produzione energetica ed investire il ricavato in infrastrutture, politiche sociali o ulteriori impianti green.
Uno sviluppo omogeneo delle rinnovabili favorirebbe la transizione progressiva dai combustibili fossili, riducendo le emissioni di carbonio che causano il cambiamento climatico e quindi facendo gli interessi di tutti, ovunque.

Queste proiezioni positive non si avvereranno mai per osmosi. Molti paesi nel Mediterraneo hanno bisogno di assistenza finanziaria e tecnica per mettere in pratica i progetti di conversione. L'accordo di Parigi includeva impegni economici da parte degli stati più ricchi per finanziare i paesi più

bisognosi, ma molti governi non hanno rispettato l'accordo. Questo è controproducente, proprio come la mancata distribuzione del vaccino contro il COVID ai paesi del Sud del mondo, un errore imperdonabile che non solo determina la morte di persone innocenti, ma crea anche terreno fertile per nuove varianti del virus. Se la transizione verso un'energia più pulita creasse difficoltà alle popolazioni già svantaggiate, potrebbe venire a mancare il sostegno popolare verso questo percorso, con conseguenze terribili per tutti noi. Se lasciato incontrollato, il cambiamento climatico potrebbe provocare morte e distruzione ovunque creando flussi migratori ingestibili.

Roudi Baroudi conclude esortando la COP26 a produrre nuovi programmi di finanziamento da parte dei paesi ricchi verso quelli più poveri senza creare situazioni di assistenzialismo. Ci sono moltissime risorse a disposizione e c'è poco tempo per agire, quindi gli stati finanziatori non possono permettersi di sbagliare. I prestiti agevolati andranno messi a disposizione per i paesi più virtuosi che garantiranno la finalizzazione dei progetti. L'unico modo per farlo è articolare una strategia coerente per eseguire progetti rilevanti e fattibili con tempi e budget ben definiti. In particolare, i governi regionali devono dissipare i timori giustificati che, i fondi destinati ai progetti per le energie rinnovabili o ad altri strumenti di de carbonizzazione, andranno invece a riempire le tasche di funzionari locali corrotti.

Queste sono le linee guida che deve seguire quest'anno la conferenza di Glasgow. La lotta ai cambiamenti climatici è ampiamente considerata come la sfida più importante che la nostra specie abbia mai affrontato e la capacità della regione di proteggersi e di esercitare il proprio peso sarà in bilico alla COP26. I paesi che si presentano con piani ben sviluppati per progetti concreti avranno la strada spianata per varie forme di finanziamento. Coloro che non lo faranno saranno inevitabilmente tagliati fuori.

Saudi triumphs in oil market with comeback from the Covid crisis

Bloomberg Riyadh/London

When the Opec+ alliance of oil producers gathers next week, group leader Saudi Arabia can savour a moment of triumph.

Eighteen months after slashing crude production during the pandemic, Riyadh is set to pump at almost pre-Covid levels of 9.8mn barrels a day this month as a recovering global economy clamours for energy supplies.

Furthermore, by bringing those shipments back slowly enough to avert a new surplus, Saudi Energy Minister Prince Abdulaziz bin Salman has revived crude prices to $80 a barrel. That's swelled the kingdom's petroleum revenues to a three-year high, putting them on track for an even bigger payout in 2022.

"Opec+ has had a very good year," said Ben Luckock, co-head of

oil trading at commodities merchant Trafigura Group. “They have delivered: they have managed to thread the needle.”

That’s a far cry from the tumult of last March, when the plunge in fuel demand briefly pitched Organization of Petroleum Exporting Countries and its partners into a vicious fight over customers. Those bitter memories seem very distant as the 23-nation network — jointly led by the Saudis and Russia — prepares to meet on Monday.

If there’s a threat to the delicate balance Opec+ has achieved, it’s that the market could overheat and prices rise too high.

The alliance has signalled it will stick with its schedule of modest production increases by approving another 400,000 barrel-a-day increment for November. But the market has shifted since that road map was agreed in July.

The shortage of natural gas, which has sent prices to the equivalent of $190 a barrel, is spurring a switch to oil products for heating and manufacturing, boosting overall demand. US oil production is still recovering from Hurricane Ida, which has knocked out a total of almost 35mn barrels after slamming the Gulf of Mexico a month ago — equivalent to almost two full months of Opec+ supply increases.

Anxiety among key consuming nations is palpable, especially if they end up experiencing a cold winter. China has instructed top energy firms to secure supplies at any cost. US President Joe Biden’s administration says it has reminded Opec of the need to support the recovery, and National Security Adviser Jake Sullivan met with Saudi Crown Prince Mohamed bin Salman last week.

“Opec will come under increasingly intense pressure from Washington to open the production release valve and cap the upside” in prices, said Helima Croft, chief commodities strategist at RBC Capital Markets. “An increase beyond the 400,000 barrels a day is a live option for Monday.”

That’s a view shared by the world’s largest independent trader, Vitol Group. Not only is demand being boosted by the shortage of natural gas, the supply outlook is tightening as

prospects diminish for a swift deal to revive Iranian exports, said Chris Bake, the company's head of origination.

Tehran and Washington have been involved in negotiations to reactivate a nuclear accord — and lift US sanctions on Iranian oil shipments — but the talks have so far made little headway. As a result, roughly 1.4mn barrels a day of Iranian crude that traders thought might be entering the market in late 2021 remains absent.

Some Opec+ delegates say privately that the increase approved at Monday's meeting could be bigger than the scheduled 400,000 barrels a day. Scenarios for larger hikes have been considered, said one official.

Saudi Arabia doesn't want to see prices spiral toward $100 a barrel, as excessive fuel costs would curtail demand and stimulate a revival in US shale output, according to people familiar with the kingdom's thinking.

A spike in crude prices — just weeks before world leaders gather in Glasgow, Scotland, for a fresh round of climate talks intended to shift the world away from fossil fuels — could boost support for the transition to renewable energy.

The promise of 'green' hydrogen

By Thomas Koch Blank/ Stockholm

While we already have mature technologies that can replace fossil fuels in many parts of our economy, there are areas where eliminating carbon pollution will be much more difficult. Steel, shipping, aviation, and trucking, for example, account for a combined 40% of our global carbon footprint and are on track to consume two times the remaining carbon budget for staying below 1.5C of warming.

Fortunately, “green” hydrogen – H2 produced through electrolysis using renewable energy – holds enormous promise for these sectors. Through various applications, this tiny molecule can provide the heat, reduction properties, fuel, and other services needed to replace fossil fuels. In fact, given the technical challenge of getting these “hard-to-abate” sectors to a state of carbon neutrality, hitting 2050 net-zero targets without it would be virtually impossible.

H2 uptake can serve other objectives beyond decarbonisation. For example, hydrogen’s ability to substitute for natural gas in many applications allows for a degree of energy independence and reduced reliance on liquefied natural gas or pipeline imports from Russia. And while renewables like solar and wind are limited by the extent of electrical grids,

hydrogen can be transported by pipeline or potentially by ship. That means it could become an exportable renewable-energy source, eventually replacing petroleum as the main global energy commodity.

H2 uptake is starting from vastly differing points, depending on the market. In Europe and Southeast Asia, political and market incentives are already fully aligned for the deployment of H2 infrastructure. But in large oil- and gas-exporting economies, the incentives are often conflicting. Notably, there is significant misalignment in the United States, where natural gas fulfils all the political priorities that hydrogen can provide for other markets.

As a crucial element in achieving 2050 net-zero targets, hydrogen production, storage, and transport represents a multi-trillion-dollar opportunity, not only for energy incumbents but also for investors. While hydrogen is currently more expensive (per unit of energy delivered) than competing options such as fossil fuels, the scaling up of electrolyser production is driving down costs. Within the next decade, we can expect H2 to reach break-even points with fossil fuels across different applications, after which hydrogen uptake will bring cost savings.

Green hydrogen is particularly attractive for developing economies. There is a strong geographical overlap between countries and regions with the lowest production cost for renewable energy and those with lower per capita GDP. These countries thus could secure a global competitive advantage by becoming hydrogen producers and exporters. Doing so would also help them attract zero-carbon heavy industry, such as fertiliser manufacturing or hydrogen-based direct reduction steelmaking. And, of course, the development of these sectors would lead to significant job creation.

H2 is also attractive for wealthy industrialised countries, which currently lead the world in the manufacture of hydrogen electrolysers. However, if the recent history of the photovoltaic (solar panel) industry is any guide, wealthy countries may need stronger industrial policies to ensure that

production does not migrate to China and other regions.

There is more work to do before hydrogen can realise its full decarbonisation potential. As matters stand, green hydrogen represents a very small portion of existing hydrogen production. Instead, most hydrogen is “gray,” because it is made using fossil fuels through a steam methane reforming (SMR) process. Though there is potential to capture and store some of the associated carbon dioxide emissions to make a slightly cleaner fossil-based “blue” hydrogen, this option would not be emissions-free. H2 therefore has a complex CO2 footprint, for now.

Furthermore, for hydrogen to deliver on its promise, the decarbonisation of electric grids must happen in parallel. But as with electric vehicles (EVs), we cannot wait for a 100% clean grid to begin deploying electrolysers; we must start now.

This is not as financially risky as it sounds. There will undeniably be a threshold where green hydrogen becomes the lowest-cost source of hydrogen generally. Notably, the US Department of Energy’s recently announced goal of reducing the cost of “clean hydrogen” to $1 per kilogram is nearly impossible to achieve with hydrogen produced through the SMR process at sustainable price levels for natural gas. That means US policy is already aligned behind green hydrogen.

Nonetheless, using green hydrogen to decarbonise heavy industry will demand a truly awesome amount of electricity. Producing the necessary volume of hydrogen would almost double total current global electricity generation. The only way to meet this demand is to build renewable energy even faster.

That, in turn, will lead to critical infrastructure-design questions, such as whether to prioritise H2 pipelines or power lines. And the growth of this sector will have many regulatory implications. To ensure a rapid build-out of hydrogen infrastructure, it will be important to enable monetisation, create rate structures to encourage capital-expenditure deferral, and provide system-wide planning across infrastructure types.

Equally, a move to H2 will accelerate the obsolescence of many fossil fuel-based assets. For these large volumes of stranded assets not to produce negative side effects, they will need to be repurposed or helped into early retirement with various financial incentives.

One high-potential area for repurposing infrastructure is in natural-gas pipeline networks, which, in some cases, can be retrofitted to allow for hydrogen transport. Some thermal power plants can also potentially be repurposed; but, here, the end-to-end efficiency of power-to-hydrogen-to-power is low, so the profitable use cases are limited. For the steel industry, the picture is grimmer, as existing blast furnace capacity may need to be replaced with direct reduction. Similarly, gasoline and diesel fuelling infrastructure will need to be replaced. But the future of such infrastructure is already in doubt, owing to the growing market for battery EVs.

Hydrogen brings enormous opportunities but also a daunting scaling challenge. Globally, the industry currently has the capacity to produce only around one gigawatt of hydrogen electrolysers each year, whereas, according to the International Energy Agency's analysis on what a 1.5C pathway requires, green hydrogen production will need to grow 1,000-fold from today to 2030.

There are actions that can and must be taken to meet this challenge. First, we need policies to ensure stable demand at scale, so that electrolysis makers can leap-frog into industrialised manufacturing. Second, governments must provide subsidies to cover the initial "green premium" until learning-curve effects take over. And, finally, we must address the tension between current asset locations and the places with the lowest-cost clean-sheet footprint for decarbonised industries.

Backed by direct and indirect political priorities, hydrogen markets have already gained momentum and crossed the point of no return. As such, they are quickly bringing cleaner industry and a decarbonised economy within striking distance. – Project Syndicate

• Thomas Koch Blank is Senior Principal of Breakthrough Technologies at RMI.

Column: Europe's rising energy prices will force factory closures: Kemp

LONDON, Oct 1 (Reuters) – Europe's increasingly expensive gas and electricity prices are sending a strong signal to manufacturers to consider temporary plant closures and to home and office owners to turn down thermostats to conserve fuel this winter.

Front-month gas futures are now more than six times more expensive than at this point last year, as the region struggles to import enough gas to refill its depleted storage

ahead of the winter peak heating season.

Regional storage sites are still only 74.7% full, the lowest for more than a decade, and compared with a pre-pandemic five-year seasonal average of 87.4%, according to Gas Infrastructure Europe.

In the short term, Europe is unlikely to attract significantly more gas because production is fixed and there is already a worldwide shortage, which is also pushing up prices in Northeast Asia and North America.

Escalating futures prices signal traders think lower consumption will be necessary to prevent stocks eroding to critically low levels and risking fuel supplies running out this winter (https://tmsnrt.rs/2YkKwPc).
Rising prices will find the path of least-resistance to cut consumption – with the most price-sensitive and least politically sensitive customers forced to reduce gas and electricity use first and most deeply.

In theory, the crisis could be resolved easily by homes, offices, schools and factories turning down thermostats by 0.5-1.0 degrees this winter; the result would be an enormous fuel saving with only a minimal impact on comfort.

In practice, policymakers will be reluctant to call for thermostat reductions since it implies a policy failure and has unpopular associations with one-term U.S. President Jimmy Carter.

European governments are instead trying to shield residential and small business customers from the full force of increasing energy prices on utility bills through price caps, rebates and tax cuts.

But if the crisis continues to worsen, and especially if the winter proves colder than normal, shielding residential customers could prove unsustainable and calls for energy

conservation may become inevitable.

In the meantime, policymakers are likely to explore other fuel saving measures, including reduced street-lighting and extended closures of government buildings, offices and schools over the mid-winter holiday period.

More significant savings could be made if manufacturers close their operations temporarily, cutting consumption and potentially reselling energy into the spot market if they have already contracted to buy it.

Steeply rising energy costs will force many manufacturers to reassess their production plans this winter, especially those with energy-intensive processes and/or limited ability to raise the price of their own products.

For manufacturers, short closures have the double benefit of cutting energy costs and also driving up the price of their products, helping protect margins against rising power and gas prices.

Once enough credible plant closures and other energy-saving measures are announced futures prices are likely to moderate.

Plant closures would, however, worsen problems throughout the supply chain and intensify the upward pressure on inflation, as well as disrupting long-standing customer relationships.

But unless the winter proves mild, price rises and physical shortages of gas, coal and electricity are unlikely to remain confined to energy markets, rippling out to the rest of the economy as is already happening in China.