Brazil’s Climate Push Must Start at Home

As the current G20 president and host of next year’s United Nations Climate Change Conference, Brazil has sought to establish itself as a global climate leader. But to have the biggest impact, Luiz Inácio Lula da Silva’s government must lead by example, which means committing to ambitious emissions targets and energy policies.

AMSTERDAM – Ever since Brazilian President Luiz Inácio Lula da Silva returned to office in 2023 and told the world that Brazil is “back on the world stage,” the government has endeavored to establish itself as a global climate leader. As the current G20 president, Brazil is pushing for a sustainable bioeconomy and scaled-up climate finance – goals that it will surely continue to pursue as the host of next year’s United Nations Climate Change Conference (COP30). Moreover, the country recently formed a troika with the hosts of COP28 (the United Arab Emirates) and COP29 (Azerbaijan) to preserve the Paris climate agreement’s goal of limiting global warming to 1.5º Celsius.

The Brazilian government has not been afraid to challenge

rich countries and individuals as part of its efforts to halt the rise in global temperatures. But to have the biggest impact, Brazil must lead by example. As the saying goes, charity begins at home. The timing could not be better: countries must submit more ambitious 2035 emissions-reduction targets, known as nationally determined contributions (NDCs), by February 2025.

The need to cut greenhouse-gas (GHG) emissions has never been more urgent for Brazil, which was recently hit by record flooding and has been fighting devastating forest fires for weeks. To be sure, investing in adaptation and resilience requires increased financial flows from the wealthy countries responsible for the bulk of historic pollution to vulnerable countries suffering the worst effects of global warming. But reducing fossil-fuel emissions and extraction, which has harmed traditional and indigenous communities' health, destroyed their land, and diminished their capacity to provide for their families, is also a matter of economic and social development. Brazil must devise an energy policy that works for these communities.

The share of electricity generated from wind and solar power is expanding rapidly, and these renewable-energy sources are becoming cheaper by the day. Brazil has abundant sun and wind and the tools to operate these technologies successfully. But, equally important, local communities are already expanding clean-energy infrastructure and have created innovative and effective solutions to participate in the decarbonization decision-making process.

Various community-led and decentralized clean-energy projects, often developed in partnership with NGOs, are being launched across Brazil, from isolated villages in the Amazon to densely populated *favelas* (informal settlements) in Rio de Janeiro. At the same time, the country's indigenous peoples have developed robust consultation protocols for the design and implementation of public and private renewable-energy projects

on their land.

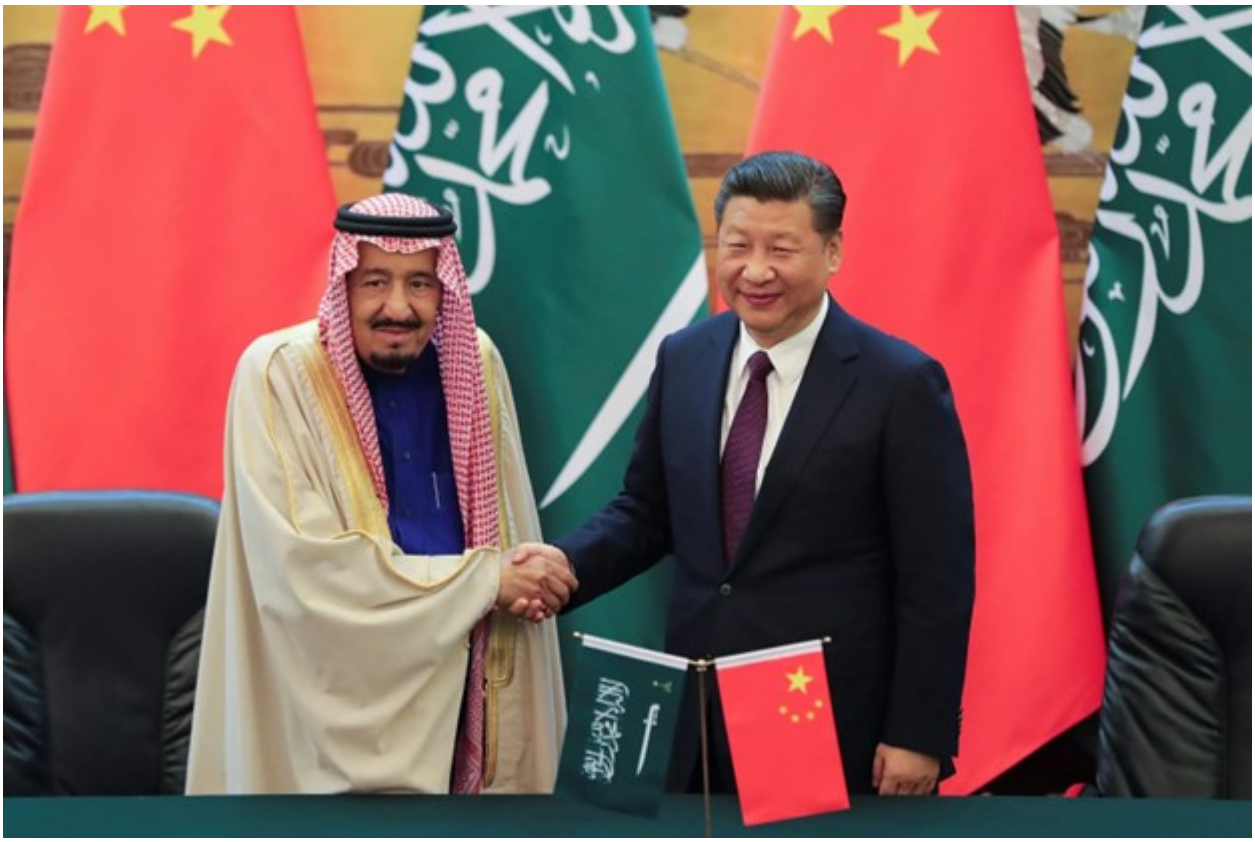
Last year, COP28 closed with an agreement to “transition away from fossil fuels” – the first time such a call has been made at the climate summit – and to triple renewable energy and double energy efficiency by 2030. To honor that agreement, Lula’s government must challenge the false notion that fossil fuels are necessary for development and can complement efforts to scale up and provide equitable access to community-centered renewable energy.

To show the world that Brazil can lead the global renewable-energy transition by example, its updated NDC must commit to bold action, such as stopping new fossil-fuel projects and shutting down existing ones, and deploying the resources required to meet the global goal of tripling renewable-energy generation. Moreover, to advance the goal of energy justice, the government should implement policies aimed at ensuring that solar and wind power reaches vulnerable communities.

If the Brazilian government creates a national platform that provides operational support to these clean-energy solutions, the country can show the world that it is possible to decarbonize while putting people first. In fact, this is not only possible but essential.

A few years ago, the world came together to combat the COVID-19 pandemic. Governments quickly poured resources into vaccine development and production, successfully creating the tools to solve a novel problem in record time. In this case, the world has everything it needs to accelerate the energy transition and limit global warming; all that it is missing is the political will to commit to – and follow through on – ambitious targets and policies. Brazil can and should be one of the first countries to demonstrate it.

AS AMERICA “PIVOTS TO ASIA”, SAUDI ARABIA IS ALREADY THERE – BY ROUDI BAROUDI



The biggest news in the energy industry last week was that a state-owned Chinese company had completed a massive offshore oil and gas platform for Saudi Aramco. Breathless media reports shared impressive details about the facility’s record-setting size, weight, and output capacity, with some describing it as a massive bet on continuing strong demand for fossil fuels despite the meteoric rise of renewables.

The real significance of this news, though, is not to be found at the Qingdao shipyard where it was made, at the headquarters of the China Offshore Oil Engineering Company that built it, or at the Marjan field off Saudi Arabia’s east coast where it

will be installed and operated.

In fact, in order to truly appreciate the implications involved, one needs to travel back in time a little more than 50 years. For on 8 June 1974, the United States and Saudi Arabia reached a historic agreement that has bound the two countries ever since.

Signed by then-US Secretary of State Henry Kissinger and then-Minister of Interior Prince Fahd bin Abdulaziz, the pact established two joint commissions tasked, respectively, with increasing bilateral economic cooperation and with determining the kingdom’s military needs. It also created several joint working groups responsible for specific elements to support growth and development, including efforts to: a) expand and diversify Saudi Arabia’s industrial base, beginning with the manufacture of fertilizers and other aspects of the petrochemical sector; b) increase the number of qualified scientists and technicians available to make the most of technology transfers; c) explore partnerships in areas like solar energy and desalination; and d) find ways to cooperate in agriculture, especially in the desert.

Henry Kissinger with Prince Fahd of Saudi Arabia, 1974

Contrary to widespread misperceptions, the agreement did not say anything about Saudi crude being priced and/or transacted exclusively in US dollars. In a side-deal that remained secret until 2016, however, the United States pledged full military support in virtually all circumstances and the Kingdom of Saudi Arabia committed to investing a massive share of its oil revenues in US Treasury bills. While there was no public quid pro quo, therefore, this was to some extent a distinction without a difference: the world's biggest oil exporter ended up spending hundreds of billions of dollars on American debt and American-made weapons, making it only sensible that the vast majority of its crude sales would be in greenbacks. By extension, the sheer weight of Saudi oil in world markets – and especially within the Organization of Petroleum Exporting Countries – virtually guaranteed that the dollar would become

the de facto default currency of those markets, Petrodollars.

These arrangements suited both sides at the time, which featured a very particular set of circumstances. The previous year, as Egypt and Syria attempted to regain territories occupied by Israeli forces since the 1967 war, US President Richard Nixon authorized an unprecedented airlift of weaponry – everything from tanks, artillery, and ammunition to helicopters, radars, and air-to-air missiles – to Israel. Arab oil producers responded by playing their strongest card, announcing an oil embargo against states that supported the Israeli war effort. That led directly to supply shortages, soaring prices, and long lines at filling stations across the United States and many other countries, too, and indirectly to several years of higher inflation. Although the embargo had been lifted in March 1974, Washington was keen to prevent similar shocks in the future.

The American economy was particularly vulnerable to longer-term repercussions because of several factors, including a general slowdown caused by its long, expensive, and ultimately unsuccessful war in Vietnam. The real problem, though, stemmed from another issue: in 1971, as the dollar continued to lose ground against major European currencies, Nixon had taken the United States off the gold standard, gutting the Bretton Woods arrangements put in place after World War II and throwing foreign exchange markets into disarray. With the Cold War as backdrop, America appeared to be losing ground in its strategic competition with the Soviet Union.

The so-called “side-deal”, then, was actually far more important than the public agreement because it would restore the dollar’s primacy in international markets, making it once again the world’s favorite reserve currency, while simultaneously reducing the likelihood of future Arab oil embargos. The new system worked very well for a very long time: the US economy regained its stability, and Saudi Arabia embarked on a long program of socioeconomic development that

continues to this day. Even as the Americans have sought further protection by reducing their reliance on Saudi and other OPEC crude, their bilateral partnership and the dollar's general prevalence in the oil business have likewise persisted despite all manner of diplomatic spats, crises, and other obstacles.

Back in the present-day, the Soviet Union is no more, and although the United States has an even more formidable strategic rival in China, this competition carries neither the day-to-day intensity nor the seeming inevitability of nuclear Armageddon that the Cold War engendered. In addition, the United States is now producing more crude oil than any country ever has, further insulating its economy against exogenous shocks, while China's rapid expansion has made it the world's most prolific energy importer. In fact, Washington is years into a "pivot to Asia" that will see it focus less attention on the Middle East.

Meanwhile, Saudi Arabia is now led by Crown Prince, Mohammed bin Salman (MBS), a young and highly ambitious ruler who has shown himself more than willing to act independently of American desires or even demands. Accordingly, it should not surprise anyone that the behemoth facility now being transported to Marjan is just the most visible tip of the Sino-Saudi iceberg. Theirs is a burgeoning relationship driven by complementary needs, with both parties investing in one another's economies and cooperating on large-scale energy and industrial projects.

Given all of the foregoing, it is much too early to declare the end of an era. Even if rumors that the Saudis will soon start selling oil futures contracts in yuan or other currencies turn out to be true and the results include an erosion of the dollar's value, the US-Saudi economic relationship remains very much in place, as do defense ties ranging from procurement and maintenance to joint exercises and training. This is not to mention the approximately 60,000

Saudi students who study at American universities every year, or the countless other business and/or personal ties nurtured over decades.

Then, US President, Jimmy Carter receiving the Crown Prince Fahd of Saudi Arabia at the White House in Washington, 1977. Seeing the continuation of the Petrodollar Agreement.

All the same, a new era has definitely begun: just as the Americans have opened up other avenues to secure their energy needs, the Saudis are now moving decisively to diversify their foreign partnerships and have been doing so for many years. Inevitably, the global oil and gas economy’s center of gravity will shift eastward, but how could it be otherwise when China and several other Asian economies have become such powerhouses? The diversification path will almost certainly include occasional stretches where Riyadh will have to make difficult decisions, but this, too, reflects the confidence

that MBS has in his country’s ability to determine its own destiny.

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السعودية – الصين: شراكة نفطية ترسم معالم عصر جديد في الطاقة

يمثل #التعاون النفطي بين السعودية والصين أحد أهم الشراكات الاستراتيجية في العصر الحديث، إذ يجمع بين أكبر مصدر للنفط في العالم وأكبر مستورد له. إلا أن هذا التعاون لا يقتصر على تجارة النفط وحدها، بل يشمل استثمارات مشتركة تهدف إلى تعزيز العلاقات الاقتصادية الثنائية، خصوصاً مع توسع “#أرامكو السعودية” في السوق الصينية.

منصة “مرجان”!

بلغت #الاستثمارات الصينية في السعودية 16,8 مليار دولار في عام 2023، في مقابل 1,5 مليار دولار في عام 2022، استناداً إلى بيانات بنك الإمارات دبي الوطني. في هذا الإطار، يوضح الدكتور خالد رمضان، الخبير النفطي ورئيس المركز الدولي للدراسات الاستراتيجية بالقاهرة، لـ “النهار” أن هذا #التعاون النفطي السعودي – الصيني يؤثر إيجاباً في #أسواق الطاقة العالمية، “وما منصة

'مرجان' النفطية البحرية التابعة لأرامكو في الصين إلا ترجمة فعلية لهذا التعاون"، وستستخدم لزيادة الإنتاج السنوي لحقل المرجان النفطي إلى 24 مليون طن.

وتعد منصة "مرجان" أثقل منصة نفط وغاز بحرية في الصين مخصصة للأسواق الخارجية، وواحدة من أكبر المنصات في العالم، فهي أطول من مبنى مكون من 24 طابقًا، وتعادل مساحة سطحها 15 ملعب كرة سلة، ويمكنها جمع ونقل 24 مليون طن من النفط و7,4 مليارات متر مكعب من الغاز سنويًا.

شريكة في التنمية

يضيف رمضان: " أبرمت أرامكو السعودية في عام 2023 صفقات بقيمة 8 مليارات دولار مع شركاء صينيين في قطاعي المنبع أي الاستكشاف والإنتاج، والمصب أي التكرير والتوزيع". إلى ذلك، توظف نظرتها المتفائلة إلى إمكانات النمو في الصين على المدى الطويل، والفرص عالية الجودة، "من أجل توسيع عملياتها المتكاملة في قطاع الصناعات التحويلية الصينية، والتي يمثل الاستثمار فيها أهمية استراتيجية لنمو أعمال أرامكو في آسيا".

يلفت رمضان إلى أن دور أرامكو يتجاوز الاستثمار، "لأنها تريد أن تكون شريكا رئيسيا في التنمية الاقتصادية في الصين، والاستفادة من الفرص الجديدة التي تلوح في الأفق، من خلال شراكات استراتيجية تعزز وجودها في قطاع الصناعات التحويلية في الصين، بما فيها المواد الكيميائية والمواد المركبة المتقدمة والمواد غير المعدنية".

وهكذا، تظل الصين محورية في استراتيجية أرامكو لتنويع محفظتها، لتشمل منتجات كيميائية أكثر تخصصًا وعالية القيمة، خصوصا أن الصين تمثل 40 في المئة من مبيعات المنتجات الكيميائية العالمية.

تعزيز سلاسل التوريد

الصين ثاني أكبر اقتصاد في العالم، لذا تعد أكبر مستورد للنفط الخام، إذ تستهلك 14 مليون برميل يوميًا، تليها أوروبا بنحو 12,8 مليون برميل يوميًا. من ناحية أخرى، تعد السعودية أكبر مصدر للنفط الخام في العالم، تليها روسيا وكندا والنرويج ونيجيريا.

وانطلاقا من هذا الواقع، "سهل أن نرى كيف يمنح توسيع التعاون النفطي بين الصين والسعودية الأسواق استقرارًا أكبر، ويعزز أمان سلاسل الإمداد النفطية، ويزيد فرص المنافسة في الأسواق العالمية"، بحسب ما يقول الخبير النفطي الدولي رودي بارودي.

ويضيف لـ"النهار": "بالنسبة إلى السعوديين، سيضمنون شريكا استراتيجيا طويل الأمد، لن يشتري النفط الخام فحسب، بل يستثمر أيضًا في سلسلة النفط اللاحقة، من المصافي إلى مصانع البتروكيماويات". فأرامكو السعودية، أكبر شركة نفط في العالم، مستثمر كبير في مشروع "رونغشينغ سينوبيك فوجيان" للتكرير والبتروكيماويات (Rongsheng Sinopec Fujian Refining &

وفي شركتين كبيرتين للبتروكيماويات هما (Petrochemical venture، "هينغلي" (Hengli Petrochemical) و"رونغشينغ" (Rongsheng Petrochemical). وتفاوض أرامكو لشراء 10 في المئة في "هينغلي"، وتسعى لإبرام صفقات مماثلة مع شركتين صينيتين أخريين، بعدما أبرمت صفقة منفصلة قيمتها 3,4 مليارات دولار لشراء حصة في شركة "رونغشينغ" في العام الماضي.

تحالف مؤثر

في الضفة الأخرى، استثمرت الصين مليارات الدولارات في السعودية، "حيث دخلت الشركات الصينية على خطّ مشاريع سعودية واسعة النطاق تركّزت في معظمها في التكرير والبنية الأساسية للغاز"، بحسب بارودي، الذي يضيف: "من شأن التعاون الطويل الأجل بين البلدين أن يعيد تشكيل أجزاء من المشهد النفطي والبتروكيماوي العالمي".

ويؤكد الخبير النفطي الدولي أن أرامكو السعودية مستثمر كبير في صناعة الهيدروكربون في الصين، "والجانبان يركزان جهودهما على توسيع مصانع إنتاج السوائل وتحويلها إلى كيماويات في مصفاة الجبيل بالسعودية، وفي وحدة البتروكيماويات في نينغبو تشونجين بالصين".

ويرى بارودي أن هذا التطوّر في العلاقة التصنيعية والتحويلية هو "نتاج علاقة استراتيجية ديبلوماسية سعودية – صينية، بدأت تحاك قبل أكثر من ثلاثة عقود، لا تقتصر على التجارة والاستثمارات المتبادلة، بل تتعداها إلى تحالف تنعكس آثاره على الاقتصاد العالمي، ما من شأنه أن يقلل من تأثير أي تباطؤ اقتصادي في المستقبل، وأن يحمي أسواق الهيدروكربون والبتروكيماويات".

إلى جانب ذلك، يعزز التعاون بين السعوديين والصينيين التحول العالمي في مجال الطاقة، بفضل التوافق في الرؤى التنموية بين البلدين. فرؤية "السعودية 2030" ومبادرة "الحزام والطريق" الصينية تستهدفان إضافة المزيد من الاستثمارات في الطاقة المتجددة. ومن هنا، تستهدف أرامكو الاستفادة من الطلب المتزايد على الصناعات الخضراء الناشئة في الصين، "ليتطوّر التعاون الصيني – السعودي في مجال الطاقة من مجرد تعاون في مصادر طاقية تقليدية ليشمل قطاع الطاقة الجديدة"، بحسب رمضان.

شراكة تبادلية

يقول بارودي إن هذا التعاون يرتقي يوماً بعد يوم إلى مستوى الشراكة التبادلية، "فالفوائد متبادلة، ويعمل كلٍ من الطرفين على تنويع إيراداته، وخفض إنفاقه الإنتاجي"، مذكراً بأن هذا التعاون "يدعم قدرة البلدين على تحقيق استقرار الاقتصاد العالمي، إذ يبشّر بتغييرات مالية ضخمة".

فمحتمل جداً أن تبدأ السعودية بقبول اليوان الصيني، من بين عملات آسيوية أخرى، بوصفه عملة معتمدة في التبادلات النفطية. وهذا، برأي بارودي، يمنح الصين والسعودية مزايا اقتصادية كبيرة، خصوصاً أن المملكة جادة في مسيرة تنويع مصادر اقتصادها، والخروج من دائرة

الاعتماد الكلي على الإيراد النفطي".
يضيف بارودي: "إن تحققي المملكة هذا الهدف سيشكل نقطة تحوّل أساسيّة في سياستها الاقتصادية عموما ، والنفطية خصوصا ، إذ ستكمل تحررها من قيود البترو-دولار بعد اتفاقية مع الولايات المتحدة دامت 50 عاما ، وبعد دخولها مع الصين في مجموعة الـ 'بريكس' التي وضعت نصب عينيها الوقوف في وجه هيمنة الدولار الأميركي على الاقتصاد العالمي".

China delivers heaviest offshore oil and gas platform for Saudi deployment

The Marjan oil and gas collection and transportation platform is seen as breakthrough of construction technology of large-scale offshore oil and gas platform for the Chinese builders, weighing more than 17,200 tons, making it one of the world's largest.

The platform is expected to collect and transport 24 million tonnes of crude oil and 7.4 billion cubic meters of associated

gas every year. Its platform scale, pipeline types and sizes, and system complexity all setting new records compared to similar platforms.

Construction of the project took 34 months.

Delivery of the platform project will help the Chinese industry players transform from sub-contractor to main-contractor in global offshore engineering market, said China Offshore Oil Engineering.

The platform will be transported to its installation site 6,400 nautical miles away in the waters off Saudi Arabia at the end of August to improve Marjan oilfield’s production capacity.

China advocates shared future with Five Principles of Peaceful Coexistence

This year marks the 70th anniversary of the Five Principles of Peaceful Coexistence. The commemorative conference of the 70th anniversary of the Five Principles of Peaceful Coexistence was held in Beijing on June 28. Xi Jinping, President of the People’s Republic of China, attended the commemorative conference and delivered an important speech. He expounded on the essence of the Five Principles of Peaceful Coexistence and their relevance for our times, pointed the direction for building a community with a shared future for mankind amid major global transformation, and voiced a strong message of the Global South to work with people around the world for a better future.

70 years ago, in face of the scourge of hot wars and the confrontation of the Cold War, the Chinese leadership specified the Five Principles in their entirety for the first

time, namely, mutual respect for sovereignty and territorial integrity, mutual non-aggression, mutual non-interference in each other’s internal affairs, equality and mutual benefit, and peaceful coexistence. The Five Principles are included in the China-India and China-Myanmar joint statements, which jointly called for making them basic norms for state-to-state relations.

After 70 years of practice, the Five Principles of Peaceful Coexistence have set a historic benchmark for international relations and international rule of law, served as the prime guidance for the establishment and development of relations between countries with different social systems, remained a powerful rallying force behind the efforts of developing countries to pursue cooperation and self-strength through unity, and contributed historic wisdom to the reform and improvement of the international order.

Over the past 70 years, the Five Principles of Peaceful Coexistence have extended its reach from Asia to the world, transcending ideological differences, social system variations and uneven levels of development. They have become open, inclusive, and universally applicable basic norms for international relations and fundamental principles of international law, making indelible historic contributions to the cause of human progress.

Seventy years on, we are now in a volatile and unstable era where changes and turbulence are intertwined. At this historic moment when mankind has to choose between peace and war, prosperity and recession, unity and confrontation, the spirit of the Five Principles of Peaceful Coexistence has become more appealing rather than obsolete. Bearing the intertwined destinies of countries and the shared and fundamental interests of all peoples in mind, President Xi Jinping put forward the vision of building a community with a shared future for mankind, providing a new answer to what kind of world to build and how to build it. This is the best way to inherit, advance and enrich the Five Principles of Peaceful Coexistence under new circumstances.

From the Five Principles of Peaceful Coexistence to building a community with a shared future for mankind, China has remained consistent in the exploration for new ways of state-to-state relations, remained committed to our responsibility in upholding world peace and development, and remained steadfast in pursuing a just and equitable international order.

Over the past decades, the Five Principles of Peaceful Coexistence conformed to the trend for national independence and liberation in Asia, Africa and Latin America, and answered the very important question of how to handle state-to-state relations. Going forward, the Chinese initiative of building a community with a shared future for mankind has become an international consensus. The beautiful vision has been put into productive actions. It is moving the world to a bright future of peace, security, prosperity and progress.

Of all the forces in the world, the Global South stands out with a strong momentum. Standing at a new historical starting point, the great cause of building a community with a shared future for mankind requires the Global South to stay ahead of the historical trend. The Global South should be more open and more inclusive, jointly maintain peace and stability, promote open development, construct global governance, and advocate for the exchange among civilisations.

Both China and Qatar are important members of the Global South. In recent years, under the strategic guidance of President Xi Jinping and His Highness the Amir Sheikh Tamim bin Hamad al-Thani, China-Qatar relations have developed rapidly and comprehensively, serving as a model for countries with different social systems to firmly adhere to the Five Principles of Peaceful Coexistence, engage in friendly exchanges, and foster mutually beneficial co-operation.

Both China and Qatar are the staunch forces for peace, dedicated to promoting peaceful settlement of international disputes, and participating constructively in the political settlement of international and regional hotspot issues. They are core driving forces for open development, committed to restoring development as the central international agenda item

with clear and feasible national development visions and goals, reinvigorating global partnerships for development, and deepening South-South co-operation as well as North-South dialogue.

China and Qatar are also construction teams of global governance and advocates for exchange among civilisations. Both countries actively participate in reforming and developing the global governance system and contribute to enhancing inter-civilisation communication and dialogue.

This year marks the 10th anniversary of the establishment of the China-Qatar strategic partnership. China wishes to work with Qatar to take this opportunity to strengthen the political foundation of bilateral relations, elevate the mutually beneficial cooperation between the two countries to a new level.

China stands ready to join hands with Qatar and other countries in the world to overcome challenges, achieve shared prosperity, create an open, inclusive, clean and beautiful world of lasting peace, universal security, and shared prosperity, build a community with a shared future for mankind, and open up a brighter future for humanity.

Global oil demand growth to cool as China slows, says EIA

The US government’s energy-tracking agency added to a chorus of concerns about falling demand for oil next year caused by an economic slowdown in China, the world’s largest crude importer.

Global crude consumption will be about 104.5mn barrels a day in 2025, down 200,000 barrels a day from a previous forecast, cutting next year’s projected demand growth rate to 1.6%, according to a monthly Energy Information Administration report on Tuesday. The downward revision was driven by concerns that China’s economy has been slowing.

China reported its weakest economic growth in five quarters last month, and traders and banks have flagged slowing demand in Asia as a bearish factor for crude. The concerns have helped keep oil prices restrained this year even as Opec and its allies dial back production and the conflict in the Middle East raises the risk of supply disruptions in the region.

Despite signs of an economic slowdown across the Pacific, jet fuel remains a bright spot in US consumption. Increased air travel led to an upward revision in projected demand for the fuel this year, and next year’s consumption is still expected to exceed pre-pandemic levels, the EIA said.

The EIA also dialled back forecasts for US oil production growth amid a wave of corporate consolidation and efforts to boost output while using less gear. While the EIA still expects US production to increase this year and next, its forecasts were revised down from last month's report by 0.2% for this year and 0.6% for 2025.

The figures are the latest sign the US shale patch is growing more modestly after last year's surprising pop in production that added more than 1mn barrels a day.

Still, the expansion in annual US oil production – the EIA projects 2.3% growth this year to 13.23mn barrels a day and an additional 3.5% increase next year – shows producers are achieving the efficiency gains in drilling and fracking that allows them to grow output.

"We are clearly doing more with less and becoming more operationally efficient each quarter," Diamondback Energy Inc, one of the biggest producers in the Permian Basin of West Texas and southeast New Mexico, wrote in a letter to stockholders this week.

The Permian, which is the world's largest shale field, is forecast to add a modest 20,000 barrels a day through the end of this year and another 340,000 barrels of production next year, according to the latest EIA projections.

This is how we know when the world has its hottest day

On Sunday, the world had its hottest day on record. Just 24 hours later, that record was broken again, making Monday very likely the hottest day in thousands of years.

It may seem improbable for scientists to gauge the world's hottest day given that they don't have temperature monitors in every corner of the world and less than a century of relatively widespread observations. But they've developed a technique that's increasingly useful as the planet heats up.

This month's shocking heat findings, announced by the EU's Copernicus Climate Change Service, are based on "reanalysis," a technique that mixes temperature data and models to provide a global view of the climate. The center creates a nearly real-time picture of the Earth's climate, including temperature, wind and precipitation, for roughly every 30-square-kilometer chunk of the planet's surface.

This reanalysis goes back to 1940, and it allows researchers to say with confidence when a record is broken, whether for a day, month or year. Beyond the new daily heat record, the data

also shows that 2023 was the hottest year ever recorded and that every calendar month for the past 13 months has been the hottest on record.

Though there aren't thermometers in every corner of the world, Copernicus receives a large amount of weather data that it uses to underpin its reanalysis.

"We have this constant flow of information coming into the center," says Carlo Buontempo, director of the Climate Change Service, which is part of the European Center for Medium-Range Weather Forecasts (ECMWF).

Scientists at the center receive 100 million readings per day about weather conditions from around the world. Observations come from airplanes, satellites, ships, radar and surface-level weather stations – all feeding real-time information about temperature, wind, rain and snow information, as well as other factors like air pollution. This information is fed into a model, known as ERA5, which is already equipped with historic information about the global climate.

There are gaps in these observations, because the data sources don't cover every part of the world. Weather conditions like cloudy skies may also reduce the amount of data coming from sources like satellites. To fill these gaps, the scientists take the predictions they have already made, based on the long-term ERA5 model, and test them against the observations. That means a forecast that predicts a particular temperature in a particular place will be tested against all the data researchers receive about the weather in that place and nearby, as well as broader forces like ocean currents and air circulation.

This is done repeatedly while assessing how compatible the prediction is with what's actually been recorded. The model also accounts for any errors in the recorded data, and relies on the laws of physics, including the weather patterns,

currents and airflow that govern how the global climate works.

In this way, it’s possible to create a complete picture that is as accurate as possible. That’s what allows scientists to confidently declare a record like when the world experiences the hottest day in human history.

Globally, five weather services – the U.S.’s National Oceanic and Atmospheric Administration and NASA, the ECMWF, the China Meteorological Administration and the Japan Meteorological Agency – carry out continuous appraisals of global temperature using this technique. While their models differ slightly, the five groups have come to similar conclusions about record heat in recent months and years.

Historical data is trickier to come by. The longest-running temperature series, the Central England Temperature in the U.K., started in the 17th century. Data from before humans were systematically monitoring temperatures comes from sources like bubbles of gas trapped in glacial ice, or tree rings. These sources aren’t as specific as a thermometer reading, but it’s possible to say with confidence that recent temperatures are likely the highest in around 100,000 years, Copernicus says.

Meteorologists also have a good idea when a particularly significant day, like the hottest day on record, is on its way. This is partly because global mean temperatures usually peak between early July and early August. Last year’s hottest day – which was the previous record for the hottest ever – occurred in early July amid a historic oceanic heat wave. An intensifying El Nino – a natural global climate phenomenon that usually means hotter temperatures globally – provided yet another clue that record heat was brewing.

Until this July, it looked for a while like the world wouldn’t set a new daily record, says Buontempo.

“The global mean temperature for the oceans started rising

again," he says. "Some of the people who systematically monitor our predictions started to sound alarm bells."

By the start of last week, they were paying extra attention to the reanalysis and getting ready to make an announcement.

This technique isn't just useful for making "hottest day ever" announcements: It's being used to train artificial intelligence forecasting models, especially for "ensemble" weather forecasts, which represent multiple possible future scenarios. It's also used by solar energy companies to help homeowners work out how much energy their panels might generate, and by wind energy companies to plan where to put wind farms.

Copernicus is currently working on a new model, known as ERA6, which will be more precise – dividing the world into 14-km squares – and incorporate many more historic data sources, including early satellite readings from the 1970s.

For Buontempo, more important than any one day is the recent extraordinary streak of record-breaking months, given that's a better indicator of how rapidly the world is warming. But pinpointing a specific day does make a changing climate feel much more immediate.

"I think we have to make it more tangible, more direct, more visible," he says. "It is important that people are informed."

'Prerequisites for peace': Expert applauds Skylakakis

for endorsing energy transition policies that ‘open the way to dialogue and cooperation’

ATHENS, July 7, 2024 Greece: Energy and Environment Minister Theodoros Skylakakis is on the right track with his approach to Greece’s energy transition plans, a noted regional expert says.

“He’s got the right perspective,” industry veteran and author Roudi Baroudi said after Skylakakis spoke at this week’s Athens Energy Summit. “He understands that although the responsibility to reduce carbon emissions is universal, the best policy decisions don’t come in ‘one-size-fits-all’.”

Baroudi, who has more than four decades in the field and currently serves as CEO of Doha independent consultancy Energy and Environment Holding, made his comments on the sidelines of

the forum, where he also was a speaker.

In his remarks, Skylakakis expressed confidence that Greece’s increasing need to store electricity – as intermittent renewables generate a growing share of electricity – would drive sufficient investment in battery capacity, without the need for subsidies. Among other comments, he also stressed the need for European Union policymakers to account for the fact that member-states currently face the cost s of both limiting future climate change AND mitigating the impacts that are already under way.

“Every country is different in terms of how it can best fight climate change. Each one has its own set of natural resources, industrial capacity, financial wherewithal, and other variables. What works in one situation might be a terrible idea elsewhere. That’s crucial and Skylakakis gets it,” Baroudi said. “He also understands that an effective transition depends on carefully considered policies, policies that attract investment to where it can not only have the greatest impact today, but also maximizes the impact of tomorrow’s technologies and tomorrow’s partnerships.”

“What Skylakakis is saying and doing fits in nicely with many of the same ideas I spoke about,” Baroudi added. “When he talks about heavier reliance on wind farms, the added storage capacity is a foundation that will help derive a fuller return from each and every turbine. When he highlights the utility – pun intended – of power and gas interconnections with other countries and regions, these are the prerequisites for peace, the building blocks for cooperation and dialogue.”

In his own speech shortly after Skylakakis’, Baroudi told the audience at the capital’s Hotel Grande Bretagne that countries

in the Eastern Mediterranean should work together to increase cleaner energy production and reduce regional tensions.

“Surely there is a method by which we can re-establish the same common ground enshrined in the wake of World Wars I and II, recall the same common interests and identify new ones, and work together to achieve common goals, just as the UN Charter implores us to,” he said.

Baroudi advises companies, governments, and international institutions on energy policy and is an award-winning advocate for efforts to promote peace through dialogue and diplomacy. He told his audience that with both climate change and mounting geopolitical tensions posing threats to people around the world, policymakers needed to think outside the usual boxes.

In this way, he argued, “we might develop the mutual trust which alone can create a safer, happier, and better world for our children and grandchildren.”

“Consider the possibilities if Greece, Türkiye, and Cyprus became de facto – or de jure – partners in a pipeline carrying East Med gas to consumers in Bulgaria, Romania, and Italy,” he said. “Imagine a future in which Israeli and Lebanese gas companies were similarly – but independently – reliant on the same Cypriot LNG plant for 10-20%, or even more, of their respective countries’ GDPs.”

He also envisioned bilateral cooperation scenarios between Greece and Turkey and Syria and Turkey, as well as a regional interconnection that would provide backup energy for multiple coastal states.

“Instead of accepting certain ideas as permanently impossible, we ought to be thinking ahead and laying the groundwork,” Baroudi said. “For Greece and Türkiye – as for other pairs of coastal states in the region – a good starting point would be to emulate the Maritime Boundary Agreement agreed to by

Lebanon and Israel in 2022."

Stressing the potential for cooperation to address both energy requirements and the stability required for stronger growth and development, Baroudi – whose books include a 2023 volume about the Lebanon-Israel deal and a forthcoming one urging other East Med countries to do the same – called on the EU to take up the challenge.

"Using dialogue and diplomacy to expand energy cooperation would benefit not just the countries of the East Med but also the entire European Union and much of its surrounding 'neighborhood'," he told an audience of energy professionals and key government officials. "That level of promise more than merits the attention of Brussels, the allocation of support resources, and even the designation of a dedicated point-person tasked with facilitating the necessary contacts and negotiations."

"This is how we need to be thinking if we want to get where we need to go," Baroudi said. "Instead of allowing ourselves to be discouraged by the presence of obstacles, we need to be investigating new routes that go around them, strengthen the

rule of law – especially human rights law – as a basis for the international system, and promote lasting peace among all nations. Only then can we declare victory over what the 18th-century Scottish poet Robert Burns called 'man's inhumanity to man'."

Saudi Aramco awards $25bn in contracts for gas expansion

Saudi Aramco, the world's biggest oil producer, has awarded contracts worth more than $25bn for the second phase of the expansion of its Jafurah gas field and the third phase of expanding its main gas network.

The development of the Jafurah field, which is estimated to

hold 200 trillion cubic feet of gas, is expected to cost $100bn and boost the state energy firm's gas production by more than 60 per cent by 2030.

"These contract awards demonstrate our firm belief in the future of gas as an important energy source, as well as a vital feedstock for downstream industries," said Amin H. Nasser, Aramco president & CEO.

"The scale of our ongoing investment at Jafurah and the expansion of our master gas system underscores our intention to further integrate and grow our gas business to meet anticipated rising demand."

Aramco awarded 16 contracts, worth a combined total of around $12.4bn, for phase two development at Jafurah. This phase will include the construction of gas compression facilities, pipelines, the expansion of the Jafurah gas plant, gas processing trains, utilities, sulfur, and export facilities.

The expansion includes the construction of new riyas natural gas liquids (NGL) fractionation facilities in Jubail, including NGL fractionation trains, utilities, storage, and export facilities.

The state-energy giant also awarded 15 lump sum turnkey contracts worth approximately $8.8bn to kick off the phase three expansion of the master gas system. The expansion will increase the size of the network and raise its total capacity by an additional 3.15 billion standard cubic feet per day (bscfd) by 2028 through the installation of around 4,000km of pipelines and 17 new gas compression trains.

Furthermore, Aramco awarded an additional 23 gas rig contracts worth $2.4bn, two-directional drilling contracts worth $612m, and 13 well tie-in contracts at Jafurah, for a total of $1.63bn.

Aramco’s LNG ambitions

Saudi Arabia is working on developing its unconventional gas reserves, which require advanced extraction methods such as those used in the shale gas industry.

Aramco signed 40 corporate procurement agreements worth $6bn with local suppliers in February as the state-owned energy giant seeks to develop the country’s energy services sector while boosting its localisation programme.

The agreements cover the supply of a range of products comprising strategic commodities, such as instrumentation, electrical, and drilling equipment.

Meanwhile, an additional 15 trillion standard cubic feet of gas (scfd) were proven at Aramco’s Jafurah field in February, adding significant volumes to the kingdom’s proven gas and condensate reserves.

The company estimates that Jafurah’s reserves have reached 229 trillion cubic feet of gas and 75 billion barrels of condensates. Jafurah is the country’s largest unconventional non-oil-associated gas field and reportedly the biggest shale gas development outside of the US.

Aramco is expanding its portfolio into LNG at a time when global demand for the fuel has surged, particularly in Europe, which is replacing reduced pipeline supplies from Russia. It forayed into the global LNG market last September by acquiring a minority stake in EIG Partners’ MidOcean Energy in a deal valued at $500m.

The state-energy giant signed non-binding agreements with two US energy firms Sempra and NextDecade, for the supply of 5 million tonnes per annum (mtpa) and 1.2 of mtpa LNG, respectively, for 20 years.

How Europe can get the Green Deal done

Since the European Green Deal was introduced in 2019, European Commission President Ursula von der Leyen has touted it as the European Union's new economic-growth agenda. After all, while the strategy's core objective is climate-related – to reduce the EU's greenhouse-gas emissions to net-zero by 2050 – it aims to achieve that by modernising the economy and fostering innovation. But not everyone is convinced.

In recent months, European drivers have complained about the EU's looming ban on the production and sale of cars with internal combustion engines, households have resisted plans to phase out gas boilers, and farmers have revolted against environmental regulations they view as overbearing. With the approach of next month's European Parliament elections, far-

right parties are jostling to establish themselves as the official standard-bearers of this growing discontent and preparing to use any power they win to sabotage the green agenda.

The protesters make some legitimate points. The radical transformation that the European Green Deal entails raises difficult questions about who should bear the costs of climate action, both within and among countries. If those costs end up falling disproportionately on ordinary workers – let alone the poorest and most vulnerable communities – the transformation will exacerbate inequality, with potentially serious social and political knock-on effects. Fortunately, properly designed climate policies can avert that outcome and actually lead to greater social equality.

The European Green Deal has accounted for climate-justice considerations since the beginning. Advocates always knew that they would need to secure the political support of coal-intensive Poland, and they had not forgotten the "yellow vest" revolt that erupted in France in 2018, after President Emmanuel Macron attempted to introduce a carbon tax in road transport.

It is no coincidence that the first flagship initiative under the European Green Deal was the Just Transition Fund, which will dedicate €20bn ($21.6bn) in 2021-27 to support the "economic diversification and reconversion" of the territories expected to be the most negatively affected by the green transition. Nor is it a coincidence that, while creating the first-ever carbon market for buildings and road transport, the European Commission established the Social Climate Fund, which is expected to mobilize at least €86.7bn between 2026 and 2032 to compensate the most vulnerable groups for higher energy prices.

These policy initiatives reflect the advice one would find in the economic literature on carbon dividends. But they will prove insufficient to offset the profound distributional effects of climate policy, particularly as decarbonisation accelerates and includes sectors that directly affect ordinary

people’s daily lives, such as buildings and transport. That is why Europe also needs a new green social contract, which focuses primarily on these sectors.

To this end, the EU should streamline and simplify existing funding instruments to deliver even more decisive support for the transformation of coal and carbon-intensive regions. It should also take steps to ensure that EU countries make better, more targeted use of carbon-market revenues to support the uptake of green alternatives, from electric vehicles to home heating systems. And it should push for a “Rural Green Deal” that supports small farmers while requiring the agri-food industry to transform its systems. While such EU-level action would not eliminate the distributional consequences of climate policy, it would help significantly.

The EU must also turn decarbonisation into a real economic opportunity by developing a solid green industrial policy. This will require, first and foremost, revitalising the “boring” EU single-market agenda, in order to leverage the bloc’s greatest asset – a huge shared market for goods, financial services, energy, workers, and ideas – to incentivise new investments in clean tech.

Interventions in specific technology areas will also be needed. Rather than mimic the broad-based US Inflation Reduction Act, the EU should make the most of its limited resources by delivering targeted support in areas where it already has a solid comparative advantage on which to build. While some incumbent industries might need support as they decarbonise, supporting breakthrough innovations should be the primary goal.

The European Green Deal has come a long way since it was conceived five years ago. But if the EU is to achieve its 2030 climate goals and achieve net-zero emissions by 2050, it must act now to ensure that it can weather the inevitable political headwinds. A new green social contract and industrial policy can make all the difference. – Project Syndicate

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