

# 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.

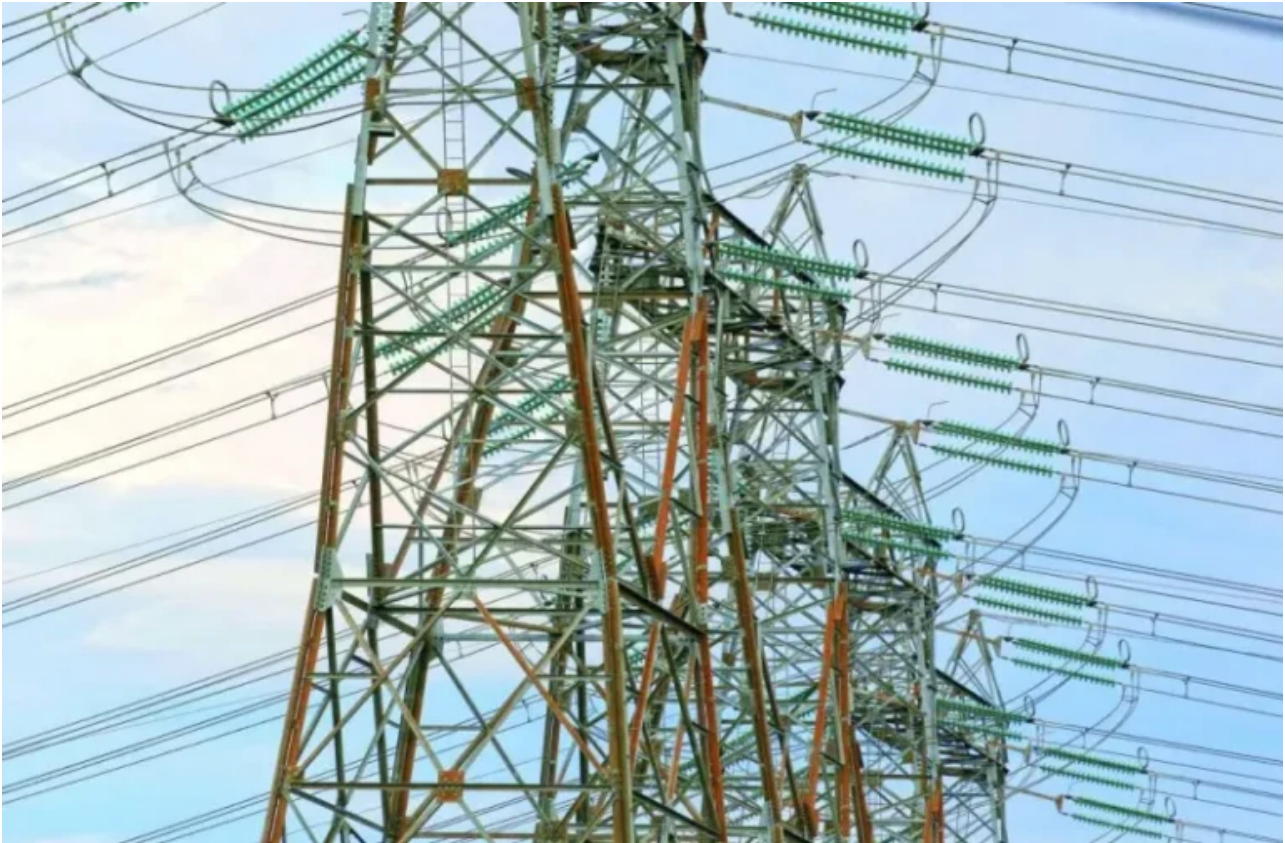
The company estimates that Jafurah's reserves have reached 229 trillion cubic feet of gas and 75 billion barrels of condensates. Jafurah is the country's largest unconventional non-oil-associated gas field and reportedly the biggest shale gas development outside of the US.

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.

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## **Crunch time for the power sector**



Many of us take electricity for granted. We flip a switch and expect the light to turn on. But the capacity and resilience of power systems – generation, transmission, and distribution – are not guaranteed, and if these systems fail, it's lights out for the entire economy.

I recently participated in a meeting of the Power and Energy Society (PES), which operates under the aegis of the Institute of Electric and Electronic Engineers. The mood at the event – attended by more than 13,000 industry professionals from around the world, plus hundreds of companies exhibiting advanced equipment and systems – was upbeat and energetic. But, despite the prevailing “can-do spirit,” everyone at that meeting knew that the power sector is confronting tremendous challenges, beginning with the growing frequency of extreme weather events. Firms are now working to devise innovative ways to restore power more quickly after outages, and are investing in infrastructure that will increase resilience to shocks. This includes efforts to minimise the risk that the system itself will cause or exacerbate a shock, such as a forest fire.

Compounding the challenge, the power sector must make progress

on the green transition. That means reducing its greenhouse-gas emissions, while maintaining a stable power supply for the economy. Since renewables work differently from fossil fuels, this implies a transformation not only of power generation, but also of transmission and distribution, including storage. Meanwhile, demand for electricity is set to surge, owing to factors like electric-vehicle adoption and the rapid growth of data centres and cloud-computing systems. The power needs of artificial-intelligence systems, in particular, are expected to grow exponentially in the coming years. According to one estimate, the AI sector will be consuming 85-135 terawatt hours per year – about as much as the Netherlands – by 2027. To meet these challenges, all three components of the power system need to be integrated in so-called smart grids, which are managed by digital systems and, increasingly, AI. But developing smart grids is no small feat. For one thing, they require a host of devices and systems, such as residential smart meters and distributed energy resource management systems (DERMS), which are needed to manage multiple flexible and fluctuating energy sources and integrate them into power networks. And, because they are built on digital foundations, effective cybersecurity systems are essential to support stability and resilience.

None of this will come cheap. The International Energy Agency estimates that, if the world economy is to reach net-zero emissions by 2050, annual investment in smart grids will need to double – from \$300bn to \$600bn – globally through 2030. This represents a significant share of the estimated \$4-6tn that will be needed annually to finance the overall energy transition. But, so far, the required investment has not been forthcoming. Even in advanced economies, the smart-grid funding gap exceeds \$100bn.

Meeting all these challenges will require coordinated action across what are often highly complex systems. The US is a case in point. America's roughly 3,000 electric utilities operate in various combinations of generation, transmission, and distribution, as well as playing a market-making role as

intermediaries between generation and distribution. Each US state has its own regulators, and local distribution can be regulated at the municipal level. America's nuclear infrastructure is managed at the federal level, by the Department of Energy, which also funds research and, under the 2022 Inflation Reduction Act, finances investment in the power sector. And the US Environmental Protection Agency plays a major role in setting the direction and pace of the energy transition.

Other entities oversee the country's three major grid regions and the interconnections among them. For example, the not-for-profit North American Electric Reliability Corp is responsible for six regional entities that together cover all the interconnected power systems of Canada and the contiguous US, as well as a portion of Mexico.

Achieving the necessary transformation of power systems will require us to figure out how to finance the relevant investments, who will ultimately pay for them, and how a complex, technologically sophisticated, and rapidly evolving smart-grid system can be co-ordinated.

It is difficult to imagine how investment could be mobilized at the scale necessary without the financing power of national governments. This is especially true in the US, where there is no shared carbon price to level the playing field. It is thus good news that, last month, President Joe Biden's administration announced a range initiatives and investments designed to support and accelerate structural change in the power sector.

As for who should pay, the answer is complicated. In principle, investments that reduce costs or augment service quality and stability should be reflected in tariffs. The problem is that the investments that improve service quality must be spread across multiple entities that own different assets in the grid. Highly decentralised regulatory structures would make coordinating all these tariff changes and transfers unwieldy, at best.

When it comes to investments that advance the green energy

transition – including the global public good of emissions reduction – we know who should not pay: local communities. In fact, the implementation of local-level charges to finance such investments is bound to lead to inefficiencies and underinvestment. It would also be unfair: there is no good reason why consumers in areas with problematic legacy systems should pay more. If they are asked to, they are likely to resist.

A better approach would be to use an expanded federal industrial policy not only to help finance and especially to co-ordinate long-term investments in the power sector, but also to guide the development of a complex, interconnected smart-grid system. This system needs a banker and an architect working with firms, regulators, investors, researchers, and industry organisations like the PES to carry out a complex, fair, and efficient structural transformation. National governments need to be involved in filling both roles. – Project Syndicate

- *Michael Spence, a Nobel laureate in economics, is Emeritus Professor of Economics and a former dean of the Graduate School of Business at Stanford University and a co-author (with Mohamed A El-Erian, Gordon Brown, and Reid Lidow) of Permacrisis: A Plan to Fix a Fractured World (Simon & Schuster, 2023).*

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# **Climate change march: From Paris to Glasgow**



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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# Cheap imports threaten US solar panel production boom



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

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

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

industry.

“The more prices decline in the global market, the more difficult it is to build US local manufacturing,” said Eburne Zoco, executive director for clean energy technology at S&P Global Commodity Insights. “If the cost gap between imported modules and locally manufactured modules is too big ... many of these announcements might not happen.”

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

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

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

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

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

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

Mike Carr, executive director of the Solar Energy

Manufacturers for America trade group, said factories could be delayed, extending US dependence on China.

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

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

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

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

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

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

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

The IRA also contains a 10% bonus credit for panel manufacturers using American-made components. This perk is critical for domestic panels that may command a 40% price premium to imported alternatives, according to Wood Mackenzie. But so few components are produced domestically that much of the industry cannot secure that bonus. So far, solar module

factory announcements have been more than double those for solar cells, the crucial components that transform sunlight into energy.

The industry needs more government help, including “the right tax and trade policies that build on the IRA and similar state laws that create the space for emerging US solar manufacturers to compete on a global scale,” said Danny O’Brien, president of corporate affairs at Hanwha Qcells, which is making one of the largest investments in the domestic solar supply chain.

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

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

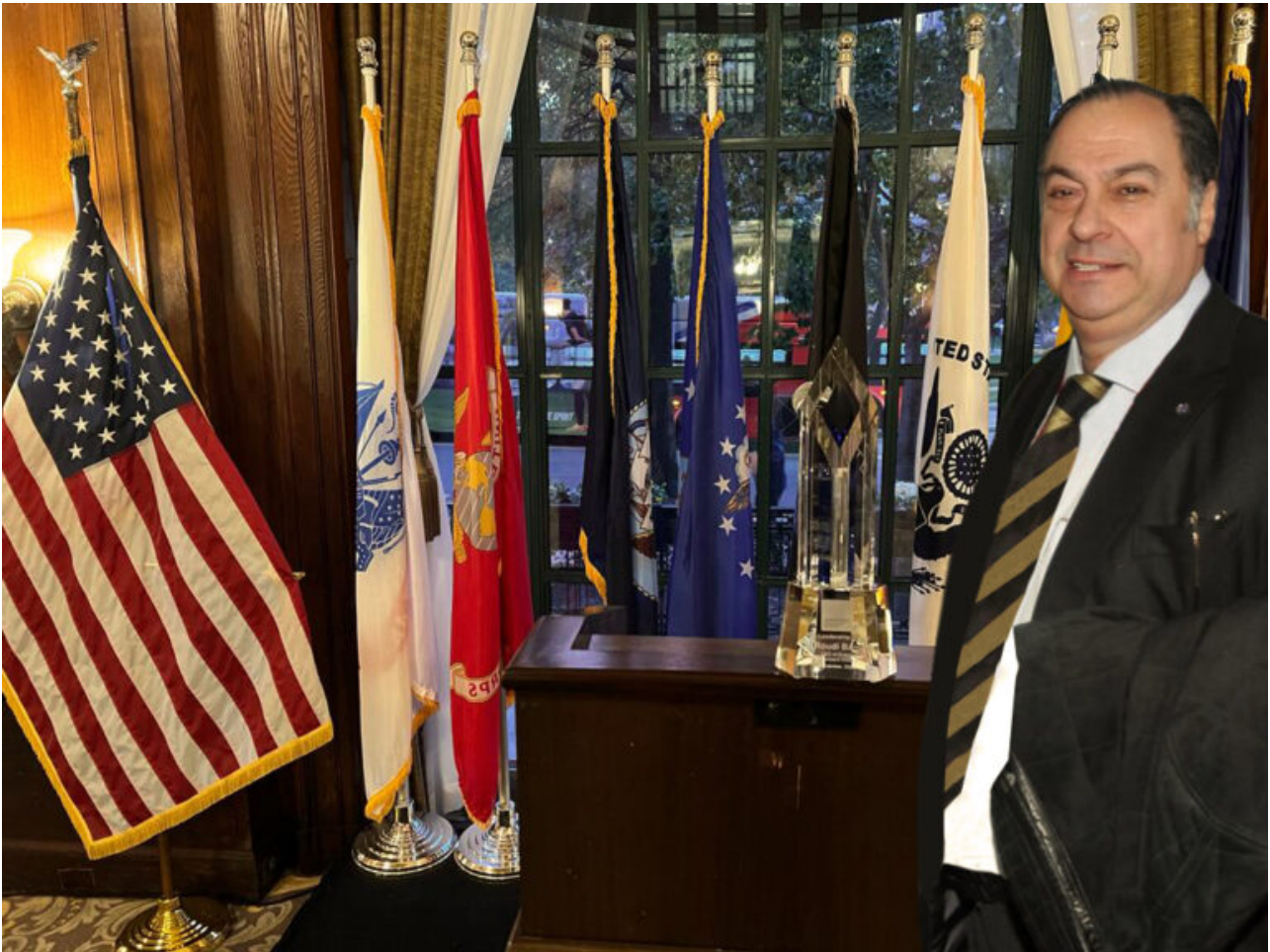
Convult Energy plans next year to open 2 gigawatts of module capacity in New York and Maine followed by a facility for components in 2025. CEO Hari Achuthan said module production lines are already about four months behind schedule because the company’s financiers are waiting for the Treasury Department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

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

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## **Regional Energy Expert Roudi**

# Baroudi Earns Award from Washington Think Tank



## Transatlantic Leadership Network Recognizes Author for Contributions to Peaceful Development in Eastern Mediterranean

WASHINGTON, DC November 9, 2023: Doha-based Lebanese author Roudi Baroudi was one of two people presented with the 2023 Transatlantic Leadership Award at a ceremony in Washington this week.

Although circumstances relating to the conflict in the Gaza Strip prevented Baroudi from attending the event, both he and Joshua Volz – the Deputy Assistant Secretary for Europe, Eurasia, Africa, and the Middle East and the Office of International Affairs at the US Department of Energy – were recognized by the Transatlantic Leadership Network (TLN). Each was cited at a gala dinner on Monday for his “valuable

contribution in building a peaceful and prosperous Eastern Mediterranean” as part of the TLN’s 2nd Annual Conference on Freedom of the Media.

“I was deeply honored to be named a recipient of this prestigious award, and I will always be grateful for the many ways in which the TLN has supported my work for several years now,” Baroudi said. “I also look forward to working together in the future so that one day, our descendants can know the benefits of peace and coexistence. It is precisely in difficult and trying times that cooler heads must be able and willing to look at the reasons for current bloodshed and recrimination, then envision pathways to a better future.”

Baroudi, who serves as CEO of independent consultancy Energy and Environment Holding in Doha, is a long-time champion of dialogue, cooperation, and practical solutions to both the global climate crisis and recurrent tensions in the East Med. A regular speaker at regional energy and policy conferences, Baroudi’s insights are also avidly sought by local and international media, as well as governments, major energy companies, and investors.

Having advised both public and private sector actors on a wide variety of energy issues, Baroudi is widely credited with bringing unique perspective to all manner of policy discussions. He is the author of several books, including “Maritime Disputes in the Eastern Mediterranean: The Way Forward” (2021), and “Climate and Energy in the Mediterranean: What the Blue Economy Means for a Greener Future” (2022). Together with Notre-Dame University – Louaize, Baroudi has also published a study of the US-brokered October 2022 Maritime Boundary Agreement between Lebanon and Israel, and is currently preparing another volume on Lebanon’s prospects for similar deals with Cyprus and Syria.

The TLN describes itself as “a nonpartisan, independent, international network of practitioners, private sector leaders

and policy analysts dedicated to strengthening and reorienting transatlantic relations to the rapidly changing dynamics of a globalizing world.”

Monday’s ceremony was attended by a broad cross-section of high-profile figures, including senior officials from the Departments of Energy and State, numerous members of Washington’s extensive diplomatic corps, and representatives of both international organizations and various media outlets.

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## Transport minister leads team to Tbilisi Belt and Road Forum



Qatar is participating with a delegation headed by HE the Minister of Transport and Communications Jassim Seif Ahmed al-

Sulaiti in the Tbilisi Belt and Road Forum, which was inaugurated on Tuesday in Tbilisi, Georgia, under the theme: "Partnership for Global Impact".

Inaugurated by the Prime Minister of Georgia, Giorgi Gakharia, on Tuesday, the forum saw the attendance of over 2,000 participants from 60 countries, including heads of states, ministers, diplomats and representatives of international and business organisations.

In his opening speech, Gakharia stressed the importance of the new Silk Road in modern economic integration and globalisation, saying that the participation in the initiative is among the top priorities of the Georgian government.

Georgia was one of the first countries applauding the China-proposed Belt and Road Initiative (BRI) to create new trade corridors between Europe and Asia and improve existing ones, he said.

The Tbilisi Silk Road Forum, he said, is "an important opportunity" and a platform on which the countries involved in the BRI, international organisations and the private sector discuss regional economic challenges and explore ways to overcome the challenges and share experience.

The forum is being held for the third time in Tbilisi.

It is opened by the Prime Minister of Georgia and organised by the Georgian ministries of foreign affairs, economy and sustainable development and supported by China and the Asian Development Bank.

The mission of the forum is to serve as an international platform for multilateral high-level dialogue among senior policymakers, businesses and community leaders to discuss important issues on trade and connectivity, examine challenges facing countries along the New Silk Road connecting East and West, and find common solutions that have a positive impact on

the region and the global economy.

Day 1 provides opportunities to discuss a full spectrum of issues related to trade, artificial intelligence (AI), transport and energy in separate panel discussions, and Day 2 focuses on the private sector and investment opportunities in Georgia.

Meanwhile, Prime Minister Gakharia met HE al-Sulaiti in Tbilisi on Tuesday. The meeting reviewed bilateral relations between Qatar and Georgia in the fields of transportation, mobility and communications and means of further enhancing them, in addition to discussing a number of topics of common interest.

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## **Crippling Heat Deepens Asia's Reliance on Russian Energy**



The extreme heat that's been scorching Asia in recent weeks has produced one clear beneficiary – Russia.

As countries across the region scramble to make sure they have enough coal, gas and fuel oil to keep the lights on and air conditioners running, Russian energy being shunned by the West is looking increasingly attractive.

What began as a push from the Kremlin to fund its invasion of Ukraine has now turned into a pull from Asian economies anxious about making sure their power generators are supplied with enough fuel in what could be the hottest year on record.

“The worst place to be right now amid these searing temperatures is South Asia, especially poorer nations like Pakistan or Bangladesh,” said John Driscoll, director of JTD Energy Services Pte in Singapore.

“When you can't even take care of your people's basic needs, it's very hard to care too much about international affairs.”

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*inbox, click here.*

Russian exports to Asia of thermal coal and natural gas, the two fuels most often used for electricity generation, have grown markedly this year, figures from data intelligence firm Kpler show.

Coal volumes jumped sharply to 7.46 million tons in April, about a third higher than a year earlier. Shipments of liquefied natural gas to Asia have also been growing in recent months after prices retreated from record highs that had made the fuel unaffordable for many poorer nations.

Meanwhile, Asian imports of Russian fuel oil, a dirtier and cheaper alternative for power generation, had the two highest months on record in March and April, according to Kpler.

The impetus for the region to buy more Russian energy is likely to increase due to an emerging El Niño weather pattern, which has already sent the mercury soaring in parts of the region. Vietnam's prime minister has warned of power shortages this month, while Myanmar is struggling with worsening blackouts.

Carbon dioxide emissions from burning fossil fuels are trapping heat in the atmosphere. That's warming the planet and is the primary driver of more extreme weather events, including heat waves.

In India, heat-driven power demand will likely be satisfied mostly by coal, said Aniket Autade, power fundamentals analyst for Rystad Energy.

Read More: [A Billion Air Conditioners Will Save Lives But Cook the Planet](#)

China and India – the most enthusiastic buyers of discounted Russian oil – are also purchasing the most coal, gas and fuel oil. They took more than two-thirds of Russian coal sent to

Asia last month, according to Bloomberg calculations based on Kpler data. South Korea, however, scooped up 15% of the shipments, while Vietnam, Malaysia and Sri Lanka have also emerged as significant buyers.

For fuel oil, China and India were again the biggest buyers from Russia, with Saudi Arabia and the United Arab Emirates also major importers, the Kpler figures show.

Bangladesh, Pakistan and Sri Lanka will probably import more Russian fuel oil for power generation, according to Emma Li, an analyst with Vortexa. The Middle East has also recently increased its imports, and that's likely to continue over the summer, she said.

Pakistan said this month it was keen to pay for Russian oil imports with the Chinese yuan. The country has placed an order for a single cargo of the crude, but is keen for a long-term deal to buy it in Chinese currency, its power minister said.

Even Japan, a close ally of the US and therefore reluctant to increase imports from Russia, might expand buying within contractual limits, according to Chris Wilkinson, senior analyst for renewables at Rystad.

"Japan may consider purchasing more LNG from Russia under its existing long-term contracts, as it is more cost-effective than buying on the spot market," he said.

For JTD Energy's Driscoll, the increasing purchases of Russian energy by many Asian countries highlights both the White House's declining clout and the perilous situation many nations find themselves in.

"[They] are asking themselves: would I rather risk falling afoul of the US or forgo steep discounts on energy?," he said. "When there's a good deal on the table, how can poorer nations afford to say no?"

– With assistance by Aaron Clark

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**UAE's ADNOC Gas to Start Trading in \$2.5bn IPO. International Energy Expert, Roudi Baroudi told AFP: "LNG is Most Important Transition Fuel in the move away from hydrocarbons".**



UAE state energy company ADNOC's recently formed gas unit will launch on the Abu Dhabi stock market on Monday in a \$2.5 billion initial public offering aimed at tapping high demand for the fuel.

Shares in ADNOC Gas, which only became operational at the start of this year, were heavily oversubscribed even after the offering was expanded from 4.0 to 5.0 percent of issued share capital in response to strong interest.

The final price was set at 2.37 dirhams (\$0.65) per share, towards the top of its range, raising about \$2.5 billion and implying a market capitalisation of around \$50 billion.

ADNOC Gas is the biggest flotation yet on the Abu Dhabi stock exchange, which opens at 9:30 am (0530 GMT).

At more than 50 times oversubscribed, it is the biggest demand ever seen for an initial public offering in the Middle East and North Africa, outstripping oil firm Saudi Aramco's world-record \$29.4 billion listing just over three years ago.

The rapidly organised IPO from ADNOC, one of the world's biggest oil firms, follows last year's scramble for alternative gas resources after Russia's invasion of Ukraine, and comes as countries search for cleaner fuels to mitigate global warming.

Energy consultant Roudi Baroudi, who heads the Qatar-based Energy and Environment Holding firm, said he expected brisk demand when the shares start trading.

"There is every reason to expect that the massive oversubscription we saw will carry over into strong interest when the shares are floated publicly," Baroudi told AFP.

– 'Transition fuel' –

Abu Dhabi National Oil Company, the United Arab Emirates' key revenue-earner, retains a 90 percent stake in the subsidiary formed from its former gas processing, LNG and industrial gas units.

Gas is being touted as cleaner than other fossil fuels as countries around the world strive to reduce their emissions.

Baroudi said Liquefied Natural Gas (LNG) was “the most important transition fuel in the move away from hydrocarbons”.

In 2021, the UAE produced 57 billion cubic metres (bcm) of natural gas, or about 1.4 percent of global output, according to the BP Statistical Review of World Energy.

That same year, the Emirates exported 8.8 bcm of LNG, 1.7 percent of world LNG exports, the Statistical Review said.

“As global efforts to battle climate change gain pace, the role of natural gas in general... is widely expected to grow,” Baroudi said.

“ADNOC enjoys a solid reputation, so it was to be expected that the ADNOC Gas IPO would attract strong interest.”

ADNOC Gas could be the first in a series of share offerings in Abu Dhabi this year.

At least eight companies are expected to follow in fields ranging from technology to asset management and regenerative medicine, Bloomberg said, citing Sameh Al Qubaisi, director general of economic affairs at Abu Dhabi’s Department of Economic Development.

<https://www.digitaljournal.com/business/uaes-adnoc-gas-to-start-trading-in-2-5bn-ipo/article>

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**Development banks must embrace nuclear energy**



Multilateral development banks (MDBs) have historically been reluctant to invest in nuclear energy, and the World Bank has not financed a nuclear power plant since 1959. In the absence of MDB funds, the majority of international financing for such projects has come from state banks in Russia and China, establishing Russian and Chinese companies as the primary suppliers of nuclear technology to low- and middle-income countries.

Multilateral development banks (MDBs) have historically been reluctant to invest in nuclear energy, and the World Bank has not financed a nuclear power plant since 1959. In the absence of MDB funds, the majority of international financing for such projects has come from state banks in Russia and China, establishing Russian and Chinese companies as the primary suppliers of nuclear technology to low- and middle-income countries.

While this approach has allowed MDBs to avoid controversy, they must acknowledge that the world has changed. The urgent need to curb greenhouse-gas emissions, together with Russia's war in Ukraine and subsequent surge in oil and gas prices, has

increased global demand for nuclear power. With the 2011 Fukushima disaster fading in the rearview mirror, even Japan is planning to restart its reactors. France, The Netherlands, and the United Kingdom have all announced plans to build new nuclear power plants, Sweden is considering it, and the European Union now allows nuclear energy to be labelled as a green investment. In the United States, the federal government is expected to pump about \$40bn into the sector over the coming decade, and private investment in nuclear energy is surging.

This change in sentiment coincides with rapid technological advances. The development of smaller and safer reactors has made nuclear power cheaper, faster to deploy, and easier to maintain. Whereas the construction of traditional nuclear power plants has historically been a major national undertaking, with costs frequently running into the dozens of billions of dollars, so-called small modular reactors allow for a more tailored approach and more manageable financing packages.

This is particularly important for developing countries, which must figure out how to expand their power supply while curtailing greenhouse-gas emissions as they become increasingly industrialised and urbanised. The International Energy Agency estimates that demand for energy in Africa will jump by one-third by the end of the decade, owing to population and income growth, as well as improved access.

While increased MDB support for renewable energy has helped put developing economies on the path toward carbon neutrality, most countries still rely on coal-fired power plants and natural gas for baseload electricity production. To complete the shift away from fossil fuels, governments must complement wind and solar energy with low-carbon sources that are not dependent on weather conditions.

But without nuclear power (or hydroelectricity, but not all countries have that option), governments will find it difficult to replace their fossil-fuel baseload. While it may be possible to achieve this by combining renewable energy with

utility-scale battery storage, the costs are prohibitive, and modern batteries come with their own sustainability issues. Geothermal energy could also play this role, but currently it is limited to areas where geothermal heat is available close to the Earth's surface. New technologies could expand access to geothermal power, but they are costly.

By abandoning their reticence about nuclear power, MDBs could help scale up low-carbon energy supply while enhancing global security. Western countries' withdrawal from nuclear energy over the past few decades has enabled Russia to establish itself as the leading international provider of reactors, services, and financing for nuclear-power projects. At a time of heightened geopolitical tensions, it is in the interest of MDBs' democratic shareholding governments to establish an alternative for emerging countries interested in nuclear power but hesitant to make their energy security dependent on Russia. Simultaneously, MDBs would promote better safety and sustainability standards.

Given that international development agencies tend to follow MDBs' lead, and that private financing of energy infrastructure projects in developing countries often depends on multilateral lenders' risk-mitigation policies, MDBs should reverse their position on nuclear power. Otherwise, Russia and China will remain the world's primary suppliers of such projects.

To be sure, MDBs must carefully assess proposed nuclear energy projects to ensure that they meet appropriate technological and sustainability standards. While some under-resourced countries with weak institutions might not be ready to pursue nuclear power, MDBs are uniquely positioned to support emerging economies seeking alternatives to Russian and Chinese technologies and financing.

The climate crisis, too, has created unprecedented momentum for reform. The US, Germany, a G20 expert panel, and Barbadian Prime Minister Mia Mottley have all called for strengthening MDBs' capacity to support developing countries in mitigating

and adapting to climate change and in mobilising private financing for this purpose. Meanwhile, the World Bank recently published an “evolution roadmap” that aims to increase its capacity to respond to climate change.

Reforming MDBs’ financing structures and energy policies is crucial to supporting developing countries in mitigating the worst effects of climate change. Moreover, Russia’s war against Ukraine has revealed the critical role of the multilateral financial system as a bulwark against tyranny. Since the start of the war, the World Bank has disbursed \$16bn in financial support to Ukraine, with other multilateral finance institutions providing comparable amounts. By explicitly permitting MDBs to finance nuclear power, their shareholding governments could weaken Russia’s still-considerable influence in emerging countries.

The momentum generated by nuclear energy’s renaissance, the geostrategic imperative to reduce Russia’s role as the dominant international provider of nuclear energy infrastructure, and the looming climate crisis, has presented MDBs with a unique opportunity to update their nuclear energy policy. To fight climate change and achieve a safer, more sustainable future, they must seize it. – Project Syndicate

(Disclaimer: The opinions and arguments expressed here are those of the authors and do not necessarily reflect the official views of the OECD or its member countries.)

\* Håvard Halland, Senior Economist at the OECD Development Centre, is a former senior economist at the World Bank and a former visiting scholar at Stanford University.

\* Jessica Lovering, Executive Director of the Good Energy Collective, is a fellow at the Energy for Growth Hub and the Fastest Path to Zero Initiative at the University of Michigan.

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# Absorbing energy transition shock



By Owen Gaffney/ Stockholm

**The challenge for politicians is to devise fair policies that protect people from the inevitable shocks**

Russia's war on Ukraine has sent shockwaves around the world. Oil prices have skyrocketed and food prices have soared, causing political instability. The last time food prices were this volatile, riots erupted across the Arab world and from Burkina Faso to Bangladesh. This time, the energy and food shock is happening against the backdrop of the Covid-19 pandemic. When will the shocks end?

They won't. So, we can choose either resignation and despair, or a policy agenda to build social and political resilience against future shocks. Those are our options, and we had better start taking them seriously, because the shocks are likely to get worse. On top of geopolitical crises, the climate emergency will bring even greater disruptions, including ferocious floods, mega-droughts, and possibly even a

simultaneous crop failure in key grain-producing regions worldwide. It is worth noting that India, the world's second-largest wheat producer, recently banned exports as part of its response to a devastating heatwave this spring.

But here's the thing: reducing vulnerability to shocks, for example, by embarking on energy and food revolutions, will also be disruptive. The energy system is the foundation of industrialised economies, and it needs to be overhauled to phase out fossil fuels within a few decades. Huge industries like coal and oil will have to contract, and then disappear. And agriculture, transportation, and other sectors will need to change radically to become more sustainable and resilient. The challenge for politicians, then, is clear: to devise fair policies that protect people from the inevitable shocks.

One idea with significant potential is a Citizen's Fund, which would follow a straightforward fee-and-dividend equation. Companies that emit greenhouse-gas emissions or extract natural resources would pay fees into the fund, which would then distribute equal payments to all citizens, creating an economic cushion during a period of transformation and beyond. This is not just an idea. In 1976, the Republican governor of Alaska, Jay Hammond, established the Alaska Permanent Fund, which charges companies a fee to extract oil and then disburses the proceeds equally to all the state's citizens. In 2021, each eligible Alaskan received \$1,114 – not as a “welfare payment” but as a dividend from a state commons (in this case, a finite supply of oil). The largest dividend ever paid was during Republican Sarah Palin's governorship in 2008, when every Alaskan enjoyed a windfall of \$3,269.

In 2017, James Baker and George Shultz, two former Republican secretaries of state, proposed a similar plan for the whole United States, estimating that fees on carbon emissions would yield a dividend of \$2,000 per year to every US household. With backing from 3,500 economists, their scheme has broad appeal not just among companies and environmental-advocacy groups but also (and more incredibly) across the political aisle.

The economics is simple. A fee on carbon drives down emissions by driving up the price of polluting. And though companies would pass on these costs to consumers, the wealthiest would be the hardest hit, because they are by far the biggest, fastest-growing source of emissions. The poorest, meanwhile, would gain the most from the dividend, because \$2,000 means a lot more to a low-income household than it does to a high-income household. In the end, most people would come out ahead.

But given that food- and energy-price shocks tend to hit low-income cohorts the hardest, why make the dividend universal? The reason is that a policy of this scale needs both broad-based and lasting support, and people are far more likely to support a programme or policy if there is at least something in it for them.

Moreover, a Citizen's Fund is not just a way to drive down emissions and provide an economic safety net for the clean-energy transition. It would also foster innovation and creativity, by providing a floor of support for the entrepreneurs and risk-takers we will need to transform our energy and food systems.

A Citizen's Fund could also be expanded to include other global commons, including mining and other extractive industries, plastics, the ocean's resources, and even knowledge, data, and networks. All involve shared commons – owned by all – that are exploited by businesses that should be required to pay for the negative externalities they create.

Of course, a universal basic dividend is not a panacea. It must be part of larger plan to build societies that are more resilient to shocks, including through greater efforts to redistribute wealth by means of progressive taxation and empowerment of workers. To that end, Earth4All, an initiative I co-lead, is developing a suite of novel proposals that we see as the most promising pathways to build cohesive societies that are better able to make long-term decisions for the benefit of the majority.

Our most important finding is perhaps the most obvious, but it

is also easy to overlook. Whether we do the bare minimum to address the grand challenges or everything we can to build resilient societies, disruption and shocks are part of our future. Embracing disruption is thus the only option and a Citizen's Fund becomes an obvious shock absorber. – Project Syndicate

- Owen Gaffney is an analyst at the Stockholm Resilience Centre and the Potsdam Institute for Climate Impact Research.