

بارودي يشدّد على التسوية السلمية لحل النزاع على مياه شرق المتوسط

تحت عنوان "شرق المتوسط مياه هادئة، مشتعلة، جامدة"، تحدّث الخبير في شؤون الطاقة رودي بارودي على قناة "الجزيرة" عبر تقنية الفيديو، عن العوامل التي تدعو الأفرقاء في شرق المتوسط إلى التعاون وتسوية النزاعات، فأكد توفّر الحلول السلمية للنزاعات حول الحدود البحرية، وأشار إلى أن "الولايات المتحدة قبل 75 سنة وبقيّة النظام الدولي الذي تم تأسيسه بعد الحرب العالمية الثانية ونظام الأمم المتحدة، كله تم تصميمه من أجل جعل النزاعات المسلحة شيئاً من الماضي وتنظيم العلاقات ما بين الدول... إذاً الدول قد تدخل في فرضية عدم اتفاق لكن من دون السقوط في عمليات العنف بين الدول. لذلك هناك اتفاقات ومعاهدات من أجل السلم والأمن الجماعي"، مؤكداً أن "الأطراف كافة تتقيّد بكل الالتزامات القائمة من أجل حل نزاعاتها بشكل سلمي".

وقال في السياق: اليونان وتركيا دولتان جارتان ولديهما الكثير من النقاط المشتركة، كما تعانيان من النزاعات القائمة، أما الأراضي التي جرى الحديث عنها، قد تكون تغيّرت بسبب اتفاقات عدة كاتفاقية جنيف، وكذلك بعض المجموعات السكانية ربما تم منعها...

وأضاف: الأمور ليست مثالية، فالنظم القائمة في العالم فيها الكثير من نقاط الضعف لكن الوضع هو أفضل بكثير مما كان عليه تاريخياً عندما ننظر إلى الماضي حيث أن الغلبة للأقوى عندما يستغل القوي الضعيف، لذلك هذا النظام موجود لأننا نريد حل هذه المشاكل، لكنه الالتزام به ليس بالطريقة المطلوبة.

وأوضح أن "المشكلات والنزاعات المتعلقة بالحدود البحرية طالما كوّنت إشكالية خصوصاً أن ليس هناك حكومة تريد النظر إليها على أن تتخلى عن أي جزء من أراضيها والتي ينظر إليها الشعب على أنها جزء من أراضيهم. من هنا، بإمكان الخبراء والمختصين بالخرائط أن يلتقوا سوياً للنظر إلى مثل هذه الأمور ويتفقوا على المكان الذي يتم فيه رسم هذه الحدود".

وأشار إلى أن الحدود البحرية هي أكثر تعقيداً وتبدأ من الحدود

البرية، وقال: الأمم المتحدة طوّرت آلية لحل هذه النزاعات المتعلقة بمثل هذه القضايا وكل من تركيا واليونان والدول الأخرى كانت حاضرة، البعض وقّع والبعض الآخر لن يوقّع، وتتضمّن قواعدَ بكيفية ترسيم الحدود البحرية والجرف القاري والحدود الأخرى. وغالبية الأعضاء في الأمم المتحدة والدول المنضوية وقّعت وصادقت على هذه الاتفاقية حتى في حالات تم حلّها بأطر غير ثنائية أو معاهدات، فإن المبادئ ذاتها تنطبق على هذه الدول.

وذكر بأن "النزاعات الجارية والتي تم النظر فيها إما مع محكمة العدل الدولية أو من خلال غرف التحكيم، كلها تركّز على المعايير والمبادئ المتعلقة باتفاقية قانون البحار، بما في ذلك على الدول التي ليست طرفاً في هذه الاتفاقية".

وتابع بارودي: عندما يتعرّف الناس على هذه الاتفاقية، يقولون "إذا كان الأمر كذلك، لماذا لم يصادق العالم على هذه الاتفاقية؟ ولماذا لم يتم تعريف كل الحدود؟"، الجواب على هذا السؤال المهم، أن السبب الأساسي هو أن تكنولوجيا التقاط الصور والحوسبة عالجت كل المخالفات المتعلقة بها هذه الاتفاقية والدراسات التي بُنيت عليها، حتى أن هذه القدرات والإمكانات كانت مكلفة بالنسبة إلى الجميع، لكنها كانت متاحة للحكومات الثريّة.

وعن القوى لاتي تملك التأثير في دفع الأفرقاء المتنازعة إلى تسوية الخلافات ما بينها، قال: هناك 21 دولة في منطقة المتوسط الأوروبي وكلنا نستحق أن نعيش بسلام، فقد سئمتنا الحروب... ويجب التفكير ما هو الأفضل بالنسبة إلى شعوبنا وأجيالنا وأطفالنا. على الأقل إن لم نتمكن من الاجتماع سوياً، فالولايات المتحدة مستعدة بالتأكيد للمساعدة وكذلك الاتحاد الأوروبي، والأمم المتحدة، وكذلك المملكة المتحدة بما أنها خرجت من الاتحاد الأوروبي فتستطيع بالتالي لعب دور الوسيط الحيادي، ولكن الأهم هو احترام القانون.

الأمر الأهم هو أن الأقوى لا يحترم القانون وعلى سبيل المثال إسرائيل. جلّ ما في الأمر أن علينا أن نتحاور بعيداً من السياسة. لنترك للسياسيين النزاع... ولنندع الشعوب تعيش، ولنندع اقتصاد عمق البحار الذي يمكنه إنقاذ الشعوب. فهم بأمرّ الحاجة إلى أنظمة الرعاية الصحية والتعليم والأمن والكهرباء والهاتف بأسعار مقبولة ولتتركنا الدول الأجنبية في حالنا. يجب أن نعمل من أجل السلام ولدينا الآليات الضرورية اللازمة، وعلى سبيل المثال إن تركيا واليونان لديهما كل العلماء والخبراء وأفضل الدكاترة أصحاب

الخبرة كي يجلسوا ويتصافحوا ويتوصلوا إلى اتفاق، خصوصاً أن أبناء الدولتين عاشوا داخل أراضي بعضهما البعض لسنوات، لماذا لا يقدرّون الآن على تكرار التجربة.

وعن ترسيم الحدود بين لبنان وإسرائيل، قال بارودي: لسوء الحظ، مرّت الدولة اللبنانية بمطبات وحروب... إلخ، وصدر عن مجلس الأمن ما يُسمّى الخط الأزرق وهو لا يصل إلى المنطقة البحرية... هناك منطقة نزاع تمتد على 872 كلم² بحسب العلماء والخبراء، ووفق قرارات الأمم المتحدة يحصل لبنان على ما لا يقل عن الثلثين، لأن إسرائيل استخدمت بعض الصخور وقامت باحتساب بعض حدوده البحرية. والولايات المتحدة مستعدة لمساعدتنا في هذا الموضوع، وتريد اعتماد الوساطة الجيدة، الأمر الذي يساهم في حل المشكلة.

ولفت إلى أن الـ"بلوك 9" غني بالموارد "ويساعدنا على العيش بسلام ومن شأنه أن يقضي على الفقر".

وعن شكل التسوية التي تراعي موازين القوى ومصالح مختلف الأطراف في شرق المتوسط، قال: حين تُحل المشكلة بين تركيا واليونان ينسحب بالطريقة نفسها على قبرص بجزءٍ منها، وتتوحد الجزيرة.

وختم: إذا كان شرق المتوسط يعيش بسلام بدون أي نزاعات أو عنف، فقبرص قريبة جداً من الساحل التركي... المطلوب النضج واحترام القانون والتناغم من أجل إبعاد الحرب، هذا كل ما نحتاج إليه.

Oil recovery waits for international flying to return



Jet fuel consumption remains the hardest-hit section of the global oil market as passengers avoid air travel because of the pandemic and government travel restrictions.

The specific problems of the jet market explain why refinery margins for closely related distillates such as diesel are being hit much harder than benchmark oil prices.

Jet fuel's travails have helped push distillate margins to their lowest levels for more than a decade and are undercutting refinery demand for crude.

Sustained recovery in distillate margins and crude oil prices will therefore depend on a wider resumption of cross-border aviation.

But an early resumption of long-haul flights is looking less likely than a few months ago, given the resurgence of coronavirus cases in many parts of the world.

So an upturn in jet consumption, and with it distillate margins and crude oil prices, depends on one or more of three factors: early deployment of an effective COVID-19 vaccine; alternative methods of infection control (such as rapid testing or improved contact tracing and isolation); or lifting

air travel restrictions with or without a vaccine.

Quarantines and other infection controls have mostly been imposed on a national or occasionally continental basis, and on potentially infective passengers rather than manufactured products.

As a result, passenger aviation has been hit much harder than freight, and within the passenger sector, long-haul intercontinental flights have been more severely affected than short-haul and domestic services.

Domestic markets rebound

Globally, air freight tonne-kilometres were down just 18 per cent in June compared with passenger revenue-kilometres down 87 per cent, according to the International Civil Aviation Organisation.

In Hong Kong, which has adopted some of the strictest quarantine requirements, air cargo volumes were down just 2 per cent in August from a year earlier while passenger numbers, excluding transit passengers, were down 99 per cent.

On the passenger side, countries with a large domestic market, including the United States and China, have seen a stronger rebound than countries that depend on international departures and arrivals such as Britain.

China's passenger aviation volume was down by about 40 per cent in August compared with the same month a year earlier, based on passenger-kilometres flown, according to the National Bureau of Statistics.

By contrast, Heathrow airport reported passenger numbers were down by 69 per cent in August for domestic and short-haul flights within Europe, and down by 92 per cent for long-haul flights outside Europe.

Business-related travel has been hit harder than leisure journeys as a result of the cancellation of conferences and in-person customer visits.

Most aviation experts expect business travel to recover more slowly than leisure journeys over the next 12 to 24 months, mirroring the experience after previous business cycle downturns.

The recession's lingering effects will encourage corporate managers to focus on cost control even once coronavirus restrictions are lifted, and discouraging discretionary flights is the easiest target for short-term savings.

Jet fuel consumption takes off

Global jet fuel consumption was about 8 million barrels a day in 2019, or about 8 per cent of global petroleum consumption, according to BP.

But it has been one of the fastest-growing sections of the market over the past decade, with consumption growing by almost 2.7 per cent a year between 2009 and 2019, compared with 1.6 per cent for all petroleum products.

While jet consumption remains a relatively small component of the total petroleum market, it is much larger compared with the market for other similar middle distillates.

In 2019, jet fuel accounted for 22 per cent of worldwide consumption of middle distillates, a group of fuels which also includes diesel, heating oil, gasoil and kerosene, and totalled about 36 million barrels a day.

The pandemic-driven slump in aviation, especially fuel-hungry long-haul passenger aviation, has cut jet consumption by more than half.

Even with its domestic market, jet fuel consumption in the US

is still down by more than 55 per cent compared with levels from a year ago, according to weekly estimates from the US Energy Information Administration.

Jet fuel, with strict quality specifications, is normally a premium product and makes a big contribution to refinery margins and profitability.

Following the pandemic, however, refiners have been forced to dump unwanted jet fuel into the broader and less-profitable pool for other middle distillates.

The diversion of surplus jet fuel has contributed to oversupply and bloated stocks of other middle distillates and is weighing on refining margins.

In turn, oversupply of distillates and poor margins are incentivising refineries to limit their crude purchases and processing, holding back wider recovery in the oil market.

Countries seen needing to invest \$55tn to reach emissions target



Global economies will need to invest as much as \$55tn through the middle of the century to meet an emissions goal and contain warming of the planet, according to a report by a group of executives from energy-intensive companies including ArcelorMittal SA, BP Plc and Royal Dutch Shell Plc. Reaching the net-zero carbon emissions target by 2050 will require large-scale electrification of industries, buildings, and transport, as well as the use of hydrogen and biofuels in areas that can't be electrified, according to the Energy Transitions Commission. Using less energy to produce more and recycling material will aid the efforts. Building renewable power plants will take up a bulk of the estimated investment.

More frequent and severe natural calamities across the world have heightened the need to contain climate change and end the use of coal and other fossil fuels while expanding clean energy. That's forcing some of the biggest fossil fuel users to recast their energy mix and adopt greener sources of power. The Intergovernmental Panel on Climate Change said in a 2018 report that reaching net-zero CO₂ emissions by mid-century will be key to limiting global warming to 1.5 degrees Celsius above pre-industrial levels. Humanity is on course to miss that mark, with the World Meteorological Organization saying

there is a 20% chance that global temperatures will breach the limit in at least one of the next five years. The decarbonization strategy will involve phasing out of coal-fired plants, according to the report. Those that remain should be used as a peaking or a seasonal back-up to renewable power and should be retrofitted with carbon capture and storage. The report highlighted some challenges on the way. China, the world's biggest coal user, "is not yet on a clear path towards a net-zero economy and new coal investments are continuing despite evidence that renewables are now highly competitive on a new-build basis in most of China's provinces," it said. The nation can become a fully developed, rich economy with net-zero emissions by 2050 by rapidly deploying renewable power projects and reducing its dependence on coal, according to the report. The country needs to double annual investments in solar and as much as quadruple investments in wind energy, along with accelerating the use of clean energy in industries and residential heating. India, the second-biggest coal user, is likely to see consumption of the fuel peak between 2027 and 2030, before gradually sliding down, Ajay Mathur, a co-chair at Energy Transitions Commission, said in a phone interview.

Iraq's rising crude sales signal further lag on Opec+ quota



Bloomberg/London

Iraq is exporting more crude so far in September than it shipped last month, a sign that the country is falling further behind in efforts to comply with its Opec+ production limit.

A long-time laggard, Iraq already owes its partners in the producers' group compensation cuts to make up for pumping too much in past months. With these extra reductions that Iraq promised for August and September, its production goal would be about 3.4mn barrels a day.

In the first 15 days of September, Iraqi exports alone reached 3.26mn barrels a day, 8% higher than last month's daily average, according to tanker tracking data compiled by Bloomberg. Adding as much as 650,000 barrels a day of crude to account for Iraqi refinery use would put Opec's second-biggest producer well over its production limit.

Sixty years on from its founding, the Organization of Petroleum Exporting Countries is restricting output with other major producers to try to revive the oil market from the Covid-19 demand crisis. Leaders of the Opec+ coalition were chairing a monitoring meeting yesterday to make sure group members toe the line, so the timing of data suggested rising exports from Iraq is awkward.

Earlier this month, Iraq said it might need more time to implement its promised additional production cuts.

Iraq pumped 3.72mn barrels a day in August, according to a Bloomberg survey. Iraq's oil ministry and its state oil marketer didn't immediately respond to requests for comment.

Crude prices have slipped since the end of August on concern that coronavirus flare-ups will slow a recovery in demand and that Opec+ compliance may be slipping.

Opec was already facing compliance questions concerning the UAE, which pumped at least 100,000 barrels a day more than it should have in August. Tanker tracking can shed light on how much oil a country is producing. However, countries may sell barrels from storage, and those don't count toward output limits. Producers also sometimes mix other petroleum products into the crude they ship, inflating their export numbers.

The daily average provided by preliminary tanker tracking may also change over the month because shipments are not always spread uniformly over the period.

After reviving crude prices from an unprecedented collapse over the spring, Opec+ is seeing the recovery stall and fuel demand falter as the deadly pandemic surges once again.

The peak holiday driving season has passed in the US, yet rush-hour traffic is still sparse and crude inventories stubbornly high. In India, the third-biggest consumer, transport-fuel sales remained 20% below year-ago levels last month. Even in China, where refiners binged on crude at the height of the crisis, buying has slowed.

As OPEC+ meets this week, UAE

emerges as main laggard



LONDON/DUBAI (Reuters) – The United Arab Emirates has emerged as a major laggard in delivering oil output cuts in August, figures used by OPEC+ showed on Wednesday, as the group meets this week amid signs of a faltering demand recovery.

Compliance with oil production cuts in August among OPEC+ members was seen at around 101%, four OPEC+ sources told Reuters on Wednesday, a figure calculated using production assessments from six secondary sources.

Several of the secondary sources showed the UAE missed its target in August, with the International Energy Agency (IEA) giving OPEC's third-largest producer a score of only 10%, significantly lower than an average of around 80% from other sources.

The UAE had said its overproduction was due to higher demand for associated gas for power generation, driven by hot weather and more people ditching foreign holidays, adding that it will compensate for the August rise by reducing its oil supply in

the coming months.

Abu Dhabi National Oil Company (ADNOC) will reduce crude oil supplies to term buyers in October and November.

A technical committee of the alliance of the Organization of the Petroleum Exporting Countries and its allies, known as OPEC+, meets on Wednesday to discuss market fundamentals and compliance.

One of the OPEC+ sources said the UAE will submit its plan to compensate for its overproduction in August.

Secondary source data including from the IEA, price reporting agencies S&P Global Platts and Argus Media, and publication Energy Intelligence have shown that laggards Iraq and Nigeria have by and large made efforts in August to compensate for their overproduction.

A higher-level ministerial monitoring committee meets on Thursday, and is unlikely to announce recommendations for expanding the oil cuts – currently at 7.7 million bpd until the end of the year – any further, sources told Reuters this week.

The meeting, instead, is expected to extend the compensation period for countries such as Iraq and Nigeria for their past overproduction, and discuss underperformance from other members, including the UAE.

The meetings come against the backdrop of worsening demand forecasts, including from OPEC.

In its monthly report, the organisation said it expected world oil demand to fall by 9.46 million barrels per day (bpd) this year, more than the 9.06 million bpd decline expected a month ago. [OPEC/M]

The OPEC forecast chimes with a worsening demand outlook outlined by the International Energy Agency and major oil

industry producers and traders.

BP Clean Energy Push Starts With 5-Year Dash on Solar, Wind



BP Plc's journey from oil major to clean energy giant will start with a five-year sprint to dramatically boost wind and solar power.

By 2025, the company intends to have approved more than 20 gigawatts of renewable energy projects, an eightfold increase from 2019, Dev Sanyal, BP's executive vice president of gas and low-carbon energy, said in a online presentation on Tuesday.

Most of that would be solar – putting BP on a par with today’s biggest generator of electricity from the sun. The company also plans big investments in wind, following on from last week’s \$1.1 billion deal with Equinor ASA.

“With falling costs comes real growth,” Sanyal said. “Renewables have become the fastest growing source of energy and we see this continuing over the next decade and beyond.”

This rapid expansion would just be the start of the London-based oil giant’s transformation into a low-carbon integrated energy company. Chief Executive Officer Bernard Looney has pledged to eliminate all net greenhouse gas emissions from BP and its customers by 2050.

A series of presentations this week aims to show he can achieve this while still delivering competitive returns. Investors may need some convincing, after seeing their dividends cut in half last month.

Trading Gains

BP’s in-house trading operations are at the heart of Looney’s pledge to move away from fossil fuels without sacrificing profits. Renewable energy projects typically gives returns of 5% to 6%, Looney said, but the company’s expert traders can add about 2 percentage points to that.

Lightsource BP, which currently manages about 2 gigawatts of solar plants, is already achieving returns of 8% to 10% and “we actually believe it can do better,” Looney said. Access to low-cost funds, and integration with the rest of BP and its project management experience can boost returns, said Sanyal and Looney.

BP will gradually expand its electricity trading over the next five years, increasing the amount of power it buys and sells annually by about 40% to 350 terawatt hours.

Of the 20 gigawatts of renewable energy capacity BP intends to begin developing over the next five years, 83% will be solar, 15% wind and 2% bio-energy, Sanyal said.

That much solar would give BP about the same capacity as is currently owned by the world's biggest operator, China's State Power Investment Corp. Ltd, according to data from BloombergNEF.

Solar power will be crucial for achieving the breakneck pace of growth BP laid out. It is relatively quick to install, taking as little as 18 months from concept to construction, Sanyal said. That's much faster than massive offshore wind farms, which can take a decade to plan and construct.

By 2030, BP plans to have taken the final investment decision on 50 gigawatts of low-carbon energy capacity, and be trading 500 terawatt hours of power each year.

On bio-energy, the company says it will more than double its 2019 production to 50,000 barrels a day by 2025, and 100,000 by 2030. These fuels will help sectors that are hard to electrify, like aviation, marine and heavy goods vehicles, Sanyal said.

BP currently makes biofuels in a joint venture with Bunge Ltd. in Brazil, produces biogas in the U.S. and processes some renewable fuels within its refining portfolio.

"We see these businesses as generating returns of around 15% or higher," Sanyal said. "It competes well within our disciplined financial framework."

The Solar-Powered Future Is Being Assembled in China



On a recent morning in central China, workers in blue jumpsuits and white masks placed clamps around a bar of shiny metal and fed it into a powerful cutting machine. The bar was an ingot made of polysilicon, a heavily refined cousin of the same material that makes up sand. Inside the cutter, it was sliced into thousands of small squares slightly larger than a CD case and thinner than a thumbnail. These wafers would then be shipped on to other factories to be infused with conductive elements such as phosphorous and boron, then wired into cells and assembled into panels—the base unit of solar energy generation.

The owner of this factory, Longi Green Energy Technology Co., is the world's largest producer of solar wafers and the world's largest solar company by market value. As of the end of last year it created about 1 of every 4 wafers made anywhere on the planet, and since then it's announced at least five projects to expand its factories or build new ones. Despite a pandemic that may slow the growth of new solar power

installations for the first time in decades, Longi expects its production capacity by the end of 2020 to have increased by two-thirds compared with 2019.

Longi and the other Chinese companies that dominate solar—collectively they control at least 60% of global capacity for every step in the supply chain—are playing a risky game. The short history of the solar industry is a tale of repeated boom and bust, with abrupt technological and policy developments rendering multibillion-dollar investments obsolete. Industry leaders one day have, again and again, become bankruptcy filers the next.

The bet in China is that this time is different. Plunging costs have left solar the cheapest form of energy in parts of the world. Subsidies are disappearing as it becomes more competitive with other forms of electric generation, making demand less dependent on political decisions. And advances in energy storage are opening a tantalizing possibility: that solar could, in the near future, replace fossil fuels in many places. “We believe the solar market will maintain the trend of rapid growth,” says Li Zhenguo, Longi’s billionaire president. A physicist by training, he founded the company in 2000, naming it for a university principal who’d impressed Li with his academic rigor. “Current global production capacity, including Longi’s, is nowhere near enough to meet the coming demand.”

Longi dates to a time when Chinese solar manufacturers were relying primarily on cheap labor to undercut more established players from the U.S. and Europe. That strategy can collapse once wages rise, as they have in China. But, in Li’s telling, Longi was focused on coming up with a product that could compete in the longer term.

That aim led the company to make a momentous choice early on. There are two ways to make the blocks that solar wafers are sliced from: by cooling molten silicon into one homogeneous

structure or encouraging it to crystallize from different points. The first approach, known as mono-crystalline, provides greater conductivity and efficiency. But it's more expensive than multi-crystalline products, which most manufacturers favored in their efforts to compete with cheap fossil fuel generation.

Li decided that Longi, which in its early years relied on other companies to turn its wafers into cells and panels, would focus on mono fabrication, even if it meant losing out on short-term sales to less-expensive producers. For a long time the choice was eccentric; as recently as 2014, mono made up only 20% of the market. But around that time, China began to heavily subsidize solar installations, turbocharging demand and providing manufacturers with an incentive to compete on technology, not just cost. As its clout grew, Longi expanded vertically, and now it competes in nearly every part of the supply chain. The subsidies "transfused blood to the manufacturing sector," says Yali Jiang, a BloombergNEF analyst in Hong Kong.

It's now clear that Longi's bet paid off. Li estimates mono will account for 90% of the market in 2020—a development that's helped the company establish a commanding position. Part of the explanation is that, as costs have fallen, planners have placed a higher priority on mono's superior efficiency. This preference is reflected in Longi's \$37 billion market capitalization on the Shanghai stock exchange, by far the highest of any solar company. Its success, Li says, came from picking a technological horse early, sticking with it, and "looking for measures to rapidly put it into production."

As dominant as Longi might appear, no one stays on top of the solar industry for long. Yingli Green Energy Holding Co. was the world's biggest maker of solar panels as recently as 2013, but aggressive borrowing to fund new production combined with a plunge in solar equipment prices drove it to the brink of

collapse. In all, about 180 solar manufacturers have exited the industry or gone bankrupt in the past four years, according to Jiang.

Longi is trying to avoid their fate by not overextending itself financially. It's managed to keep a lid on labor costs by boosting productivity, sometimes at the cost of the so-called green jobs that politicians in China and the West love to promote. At a wafer plant not far from Longi's headquarters in the ancient imperial capital of Xi'an, producing 350 megawatts' worth of product required about 1,000 people in 2010. Today its output is equivalent to 6,000 megawatts, with the same number of employees. At a nearby panel plant, the company's smallest, only 100 or so workers are needed to operate a facility the size of 10 basketball courts. During a recent visit, the company was testing a packaging system that could allow it to get rid of forklift drivers and other logistical staff.

Cost-cutting can't fully neutralize the other major threat to China's solar industry: politics. The U.S. and European Union have periodically targeted Chinese manufacturers with anti-dumping tariffs since the early 2010s, claiming that subsidies allow them to sell below cost. The U.S.-China trade war kicked off in 2018 with duties on panels, and India, which is trying to reduce the economic influence of its giant neighbor, recently extended tariffs that had been set to expire on Chinese solar products.

China's solar industry is nonetheless growing rapidly. According to BloombergNEF data, at the end of 2019 Chinese panel factories had an annual capacity of 193 gigawatts, 60% more than was installed worldwide in that year. Planned expansions could increase that total by more than half.

There's an argument to be made that Chinese solar leadership is at worst benign and at best a source of considerable innovation. The raw materials for panels are inexpensive and

abundant, and it would be easy for companies in places such as Malaysia and Vietnam to set up factories if Chinese producers raised prices. The hothouse atmosphere of China's industry, meanwhile, has encouraged manufacturers to drive down costs. Measured per watt of output, the average price of panels has plunged 91% since 2010.

Solar optimists believe developments such as these might leave the world on the verge of an inflection point. In many places, generating electricity from the sun is now significantly less expensive than doing so from coal or natural gas. (Picking a location with sunny weather, as well as cheap land and financing, helps a lot, too.)

There's also been significant progress on the technology's biggest problem: that it can only generate electricity when the sun is out. When solar was primarily a supplement to traditional power plants, that wasn't a major concern, because power demand tends to peak in daytime. But it becomes a serious constraint as more panels are installed, creating a daytime surplus that's not useful at night. Engineers are refining a huge range of storage technologies, from improved batteries to "pumped storage" systems, which use solar electricity to send water uphill during daylight hours, releasing it through turbines when needed.

None has yet emerged as a game-changing solution, but Li is bullish on batteries, and he expects that a combination of live generation and storage will be enough to replace fossil fuels around the clock in at least some locations within a decade. He predicts that demand for solar installations will triple by 2025, to 300 gigawatts a year, before hitting 1,000 gigawatts in 2030. Those projections are wildly optimistic, however: BloombergNEF expects the 2030 figure to be closer to 200 gigawatts annually.

Whatever the rate of growth, the economics of the solar market "have significantly improved in the past decade," Li says.

Now, “energy is going to be more electrified, and electricity will be cleaner.” –*With Dan Murtaugh and Feifei Shen*

Elliott Discloses Stake in Takeover Target Noble Energy



Activist investor Elliott Management Corp. has taken a stake in Noble Energy Inc., the energy explorer that agreed in July to sell to Chevron Corp. for about \$5 billion.

The stake was disclosed in a filing Tuesday with the U.S. Federal Trade Commission. Noble Energy and the New York-based hedge fund run by Paul Singer were granted early termination under the FTC’s Hart-Scott-Rodino Act – a requirement when an investor buys shares in a company above a certain threshold and seeks to hold discussions about such things as strategy or management changes.

The size of the stake and Elliott’s intentions aren’t known. Representatives for Elliott and Noble Energy weren’t immediately available for comment.

Chevron agreed to buy Noble Energy for the equivalent of

roughly \$10.38 a share at the time in the all-stock deal, a 7.5% premium over the last Friday's close. Noble Energy investors are expected to vote on the deal Oct. 2.

Noble fell nearly 2% in trading Tuesday to \$9.52 a share as of 12:18 p.m. in New York.

Elliott has a history of buying stakes in companies and pushing for changes, including breaking up potential transactions. It's agitated at companies including AT&T Inc., Twitter Inc., and Softbank Group Corp., among others.

How to Fix East Med Border Disputes



The Eastern Mediterranean is once again at the center of what

can go wrong when countries fail to resolve decades-old disputes over offshore Exclusive Economic Zones (EEZs). On the face of it, the latest Greece-Turkey skirmish makes little sense now other than playing to domestic audiences and putting down markers to ensure a future piece of whatever this natural gas-rich part of the world has to offer. In today's brutal economic climate, few energy companies are lining up to undertake new projects, which means it will take longer for actual production to begin under the best circumstances. What's more, Turkey may not have the financial wherewithal or capacity to do the exploration and development work on its own, and no private energy company is likely to invest serious capital in a project that can be tied up for years by competing EEZ claims. This maximalist approach to solving maritime disputes will not work. Equitable results, perhaps based on the equidistance principle – a methodology endorsed by the 1994 UN Convention for Law of the Sea (UNCLOS) – would be the best way forward for settling the Greece-Turkey maritime boundary dispute.

The development of Israel's huge Leviathan natural gas field is a model studied closely by others in this region. Texas-based Noble Energy, which is now merging with Chevron, discovered Leviathan 10 years ago and quickly recognized that it was not only a world-class field, but that it needed an EEZ treaty for development to proceed without being contested by Cyprus. Noble carried out its own internal Law of the Sea desktop study, which became the basis for Israel's EEZ treaty with Cyprus. It also issued an ultimatum to the Israelis that no further exploration would take place until the EEZ deal was finalized. This pressure from Noble not only prompted the Israeli government to conclude a treaty with Cyprus, it did so in a document that explicitly states Israel must adhere to UNCLOS rules despite not being a signatory of the treaty. That in itself is an enormous change with broad economic implications.

While four of the seven recognized coastal states (Greece, Turkey, Syria, Cyprus, Lebanon, Israel and Egypt), are not signatories to the treaty, there is now a general understanding that even non-signatories to UNCLOS are increasingly ready to abide by its principles in settling disputes. The real threat to the East Mediterranean's prospects as an energy hub is politics, specifically the zero-sum games that have constricted and warped regional interactions. The best way to proceed is an orderly process in which Mediterranean maritime boundaries are fully delineated and individual countries are free to develop the resources within their respective EEZs. The UNCLOS contains a comprehensive rulebook for the fair and equitable resolution of such disputes by subjecting them to consistent legal standards and detailed scientific observations.

Necessary Conditions

Given the UNCLOS, the obvious question is: Why are we still talking about unresolved maritime boundaries in the Eastern Mediterranean? The short answer is that until recently few of the necessary conditions were in place. Since its inception, both technology and case law have evolved. Old colonial-era charts were highly unreliable, with depictions of even easily observable shoreline features off by a kilometer or more. New, accurate technological mapping has removed much of the guesswork. The outcome of any legal process based on UNCLOS can now be predicted with considerable reliability.

The Israel-Cyprus treaty has itself been challenged by Lebanon, which has alleged that its neighbors used faulty coordinates for its shoreline border with Israel, thereby mistakenly locating the offshore "tripoint" among the three countries' respective EEZs several kilometers from where it should be. But Israel has agreed to be bound by UNCLOS standards, making resolution possible. The situation also makes clear that precision mapping technology – now at the disposal of any government willing to pay for a Law of the Sea

study – has finally established a clear, objective basis for discussion.

In what could be a valuable point for both Turkey and Greece, this crucial degree of accuracy, often down to sub-meter measurements, should make it easier for governments to sell any agreements they reach to their respective publics. It also leaves too little room for naysayers at home or abroad to accuse anyone of backing down or selling out. German efforts to reconcile the interests of Turkey and Greece are commendable, and with precision mapping accuracy both governments can reduce economic and political pressure while simultaneously demonstrating the potential advantages of reconciliation.

Clear Benefits

The Eastern Mediterranean's emergence as an oil and gas hub promises a cure for the region's poverty and instability. The first discoveries were located in uncontested waters off Egypt and Israel, so development was fairly straightforward. In addition, most of the deposits were in the form of natural gas, whose cleaner properties and growing ubiquity as a global commodity, may give it better medium- and long-term market prospects than oil.

These discoveries and others that could follow are critical for the growing economies in the region, which need greater energy diversity and independence. Commercial interest in these resources also remains strong. Noble's East Mediterranean gas interests are considered one of the prize assets that Chevron was after in its bid. The energy majors already invested in offshore Cyprus, including the Exxon Mobil/Qatar Petroleum (QP) and Total/Eni consortia, have postponed – not canceled – exploratory drilling in their respective blocks. The involvement of QP is also a signal of long-term stability. As one of the world's most deep-pocketed national oil companies, its gas strategy is measured in

decades, as Energy Minister Saad al-Kaabi likes to say.

Even with the current extraordinary economic circumstances of the coronavirus pandemic, for which few companies and governments were prepared, the East Med should remain attractive and financially appealing going forward. The resources are still there and, while their current market value has been diminished, the potential deposits are still highly prized assets whose development, extraction and sale can be expected to generate many hundreds of billions of dollars over several decades. Despite the increasing competitiveness of renewables, the ubiquity and low carbon profile of gas will keep it in the global energy mix for years to come.

Roudi Baroudi is CEO of Energy and Environment Holding, an independent consultancy in Doha. His recent book, "Maritime Disputes in the Eastern Mediterranean: The Way Forward," is published by the Transatlantic Leadership Network and distributed by the Brookings Institution Press.

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**Climate Hawks Urge Biden to
Shun Obama-Era Energy
Moderates**



Climate-change activists are pressuring Joe Biden to distance himself from former Obama administration advisers they view as either too moderate or too cozy with the fossil-fuel industry, a sign of disunity on the eve of the Democratic convention.

Groups such as Data for Progress and the Revolving Door Project are building a case against some people advising the Democratic presidential nominee, such as former Energy Secretary Ernest Moniz and President Barack Obama's environment aide Heather Zichal. Both have served on the boards of companies linked to fossil fuels since leaving government.

The effort reflects simmering tension between the party's moderate nominee and progressives whose votes he needs to win. Polls show a lack of enthusiasm for Biden among young voters, something that could be exacerbated by open divisions within the environmental movement. But if climate activists succeed in pulling him to the left, it could cost him mainstream support.

The activists are collecting information on the advisers and formulating a strategy that could include a letter-writing campaign and petitions, similar to what has been employed to pressure Biden to sever ties with Obama's one-time National Economic Council Director Larry Summers. Summers is a contributor to Bloomberg Television.

Obama's record on cutting greenhouse-gas emissions was widely regarded as ambitious at the time. But activists say now there's no time left for anything other than a no-holds barred approach.

"If you want to maximize the effectiveness of a Biden administration on climate you need climate warriors," said Jeff Hauser, founder and director of the Revolving Door Project, which is assembling critical dossiers on the Biden advisers. "If you are going to take the climate crisis seriously you can't be seeking a middle-road solution."

Not everyone's on board with the activists' approach, with the election quickly approaching. Biden is close to naming a running mate as the party prepares for a trimmed down, four-day nominating convention in Milwaukee set to begin Aug. 17.

Bigger Objective

Some environmentalists prefer to focus on helping Biden defeat President Donald Trump and stop his rollback of environmental regulations. Trump, who is withdrawing the U.S. from the Paris climate treaty, has repeatedly called climate change a "hoax." By contrast, Biden's \$2 trillion plan for combating climate change won robust praise last month from across the spectrum of environmental advocacy groups.

Others worry that a climate purity test means muzzling some of the nation's top energy experts.

"It's OK right now that he's relying on those people, because he's got to focus on the primary objective – which is stopping the catastrophe we are in right now," said Brett Hartl, chief

political strategist for the Center for Biological Diversity Action Fund.

But critics say Biden's reliance on a stable of former Obama energy officials is already limiting the Democratic presidential candidate's climate ambition.

Read More: Biden Feels Heat From Left to Drop Larry Summers as an Adviser

"The people who built the system and are profiting from it are not going to want to tear it down," said Collin Rees, a senior campaigner with Oil Change U.S., an environmental group that advocates shifting away from fossil fuels.

Other aides to Obama who have drawn the ire of climate activists include one-time White House energy adviser Jason Bordoff, State Department official Amos Hochstein and economic adviser Brian Deese.

None of the targeted officials are employed by the Biden campaign, though Zichal, Bordoff and Moniz have informally advised it, according to people familiar with the matter who asked not to be identified. And the campaign is widely consulting outsiders; senior campaign officials said they conferred with scientists and leaders of the environmental justice movement in developing Biden's \$2 trillion climate plan.

The activists point to signs of caution, including language in a Biden-Sanders unity task force report that rules out public financing of overseas coal projects but leaves the door open for supporting natural gas ventures.

Obama's Record

Some environmental activists are advancing an array of choices deemed acceptable as possible cabinet members – from Washington Governor Jay Inslee for Interior secretary to California Air Resources Board Chair Mary Nichols

as Environmental Protection Agency administrator.

Biden is naturally relying on advice from some of Obama's old hands, having worked with many of the same advisers during his eight years as vice president, Hartl said.

Activists say they are most concerned by what Biden's team has done in recent years – not the policies they pushed as part of the Obama administration.

“We are gearing up,” said RL Miller, chair of California Democratic Party's environmental caucus and a member-elect to the Democratic National Committee. “We will be exposing the flaws in these people's records as climate peacocks and we will be making it toxic for Joe Biden to be taking advice on matters of energy from them.”

LNG Exports

Zichal has served on the board of Cheniere Energy Inc., which became the first major U.S. exporter of shale gas in 2016, and has stressed the need to find a “middle ground” environmental policy. She also continues to promote marine protections and sustainability as head of the Blue Prosperity Coalition, has discouraged new offshore drilling off South Africa and previously was vice president of corporate engagement for the Nature Conservancy. Zichal declined to comment.

Bordoff has served on the National Petroleum Council, an Energy Department advisory group that includes oil company executives. He also founded a Columbia University energy policy center affiliated with the School of International Public Affairs Center. It draws funding from oil companies, climate-focused groups and other organizations, including Bloomberg Philanthropies, the charitable organization founded by Michael R. Bloomberg, the majority owner of Bloomberg LP. Like Summers, Bordoff has praised energy exports, noting earlier this year that increased foreign sales of liquefied natural gas help lower the price of the fossil fuel that can

displace dirtier-burning coal in generating electricity. He has also warned about “dwindling time” to make progress fighting climate change and last month argued the issue should be “squarely at the center of U.S. foreign policy.”

Bordoff is helping guide Columbia University’s creation of a climate school and develop a public database with environmental groups to track whether countries are spending Covid-19 recovery dollars to underwrite fossil fuels or clean energy.

“Throughout his career in policy and academia, Jason has focused on the urgency of the climate crisis and worked to achieve more rapid and ambitious action to achieve net-zero emissions by 2050,” said Artealia Gilliard, the Center on Global Energy Policy spokeswoman.

Deep Decarbonization

Moniz, an informal adviser to the Biden campaign, has joined the board of Southern Co., a utility that generates power from natural gas, coal, nuclear and renewables. He also proposed a “Green Real Deal” alternative to the “Green New Deal” backed by progressives. He’s drawn fire for forming a partnership with the AFL-CIO that endorses an “all-of-the-above” climate change strategy.

David Ellis, a spokesman for the Energy Future Initiative, a think tank led by Moniz, declined to comment. But he pointed to testimony Moniz gave earlier this year saying he “endorses a focus on the simultaneous needs for achieving deep decarbonization and ensuring that social equity issues are central in the clean energy transition.”

Hochstein, a former special envoy and coordinator for international affairs under Obama, worked with the State Department to ensure American energy companies had access to global oil fields. More recently, he has warned of the need to

stabilize oil-dependent nations as the world moves away from petroleum and has stressed the importance of natural gas in buttressing renewable power.

“I am not advising the Biden campaign, and I fully and 100% support the climate agenda that the campaign has laid out,” Hochstein said.

Deese, an economic adviser to Obama, now works on sustainability issues at investment firm BlackRock Inc. While BlackRock has announced plans to stop investing in companies generating more than a quarter of their profits from coal production, environmentalists say the company hasn't gone far enough. A BlackRock spokesman said Deese sits on the board of the environmental group League of Conservation Voters and helped negotiate the Paris climate agreement during his time in the Obama administration.

Biden should be getting advice from people who recognize there needs to be an end to fossil fuels instead of embracing “false solutions” that allow the construction of more oil pipelines and gas development for decades to come, said Rees, the Oil Change U.S. official.

“Ten years ago, we were certainly in a different place,” Rees said. “Today, there's no lack of powerful voices, there's no lack of people who know their stuff, there's no excuse for essentially defaulting to energy consultants when you are talking about these kinds of things.”