Saudi Aramco says global energy transition goals are ‘unrealistic’

AFP / Riyadh

Oil giant Saudi Aramco’s chief on Tuesday blasted “unrealistic” energy transition plans, calling for a “new global energy consensus”, including ramped-up investments in fossil fuels to address painful shortages.

Speaking at a conference in Switzerland, Amin Nasser, head of the world’s biggest crude producer, lamented a “deep misunderstanding” of what caused the current energy crunch and said a “fear factor” was holding back “critical” long-term oil and gas projects.

“When you shame oil and gas investors, dismantle oil- and coal-fired power plants, fail to diversify energy supplies (especially gas), oppose LNG receiving terminals, and reject nuclear power, your transition plan had better be right,” he said.

“Instead, as this crisis has shown, the plan was just a chain

of sandcastles that waves of reality have washed away.

“And billions around the world now face the energy access and cost of living consequences that are likely to be severe and prolonged.”

The primarily state-owned Saudi Aramco last month unveiled record profits of $48.4bn in the second quarter of 2022, after Russia’s invasion of Ukraine and a post-pandemic surge in demand sent crude prices soaring.

Yet even as it benefits from the current energy crisis, Riyadh has long complained that focusing on climate change at the expense of energy security would further fuel inflation and other economic woes.

With consumers and businesses in Europe facing soaring bills as winter approaches, the causes of the crisis run deeper than the Ukraine war, Nasser said Tuesday, asserting that the warning signs were “flashing red for almost a decade”. They include declining oil and gas investments dating back to 2014 and flawed models for how quickly the world could transition to renewable sources, he said.

The “energy transition plan has been undermined by unrealistic scenarios and flawed assumptions because they have been mistakenly perceived as facts”, Nasser said.

His proposed “new global energy consensus” would involve recognising long-term needs for oil and gas, enhancing energy efficiency and embracing “new, lower-carbon energy” to complement conventional sources. Nasser nonetheless said there should be no change in global climate goals.

Riyadh has come under intense outside pressure in recent months to ramp up oil production, including during a visit by US President Joe Biden in July.

So far it has largely rebuffed those appeals, co-ordinating with the Opec+ alliance it jointly leads with Russia.

Earlier this month the bloc agreed to cut production for the first time in more than a year as it seeks to lift prices that have tumbled due to recession fears.

Long-term, Saudi Arabia plans to increase daily oil production capacity by more than 1mn barrels to exceed 13mn by 2027.

Crown Prince Mohamed bin Salman has also tried to make environmentally friendly policies a centrepiece of his reform agenda.

Last year, Saudi Arabia pledged ahead of the COP26 climate change summit to achieve net zero carbon emissions by 2060.

Saudi Aramco, for its part, has pledged to achieve "operational net-zero" carbon emissions by 2050. That applies to emissions that are produced directly by Aramco's industrial sites, but not the CO2 produced when clients burn Saudi oil in their cars, power plants and furnaces.

Israel's Karish Offshore Gas Field: Facts and Figures

The country and its energy partners have found a more efficient way to exploit smaller offshore reserves, though Western officials should temper any expectations that such developments will help ease the global energy crisis.

Amid a verbal row between Israel and Lebanon, developing the Karish natural gas field represents a way forward for exploiting smaller offshore hydrocarbon discoveries in Israel’s exclusive economic zone (EEZ). The field’s 1.75 trillion cubic feet (tcf) of reserves are much less than the estimated volumes in Israel’s two producing fields, Leviathan (35 tcf) and Tamar (7.1 tcf). But even before the recent sharp increase in gas prices, Energean, the Greek-British license

holder for Karish, decided the best way to exploit the field was by linking its development to two other small fields in the area, Karish North and Tanin.

Key to this task is the *Energean Power*, a floating production storage and offloading vessel (FPSO) that took up position fifty miles off Israel's northern coast last week and is due to start production in the third quarter of this year. The vessel will use multiple anchors in water 5,500 feet deep to maintain its position. Seabed equipment linking to the gas field below will then be connected by hoses to the FPSO. Once gas is flowing to the vessel, it will be processed onboard, cleaning it of oil products and water before it descends by other hoses to the seafloor and connects with a pipe that takes it ashore. Using a pressure control device close to the beach, it will then enter Israel's gas grid to supply power stations. Meanwhile, the separated oil products and waste will be collected by a small tanker mooring alongside the FPSO every two weeks or so, and the separated water will be cleaned and pumped back into the sea.

In Israeli domestic political terms, the crucial advantage of the *Energean Power* is that it is not visible to local residents (read: voters). In contrast, the production platform for the Leviathan field is visible just a few miles offshore from the hilltop resort of Zichron Yaakov south of Haifa, leading to protests—though the tall chimneys of the nearby Hadera power station have escaped such complaints. As for Tamar, its platform is located out of sight thirteen miles off the coast of Ashkelon far to the south, but its gas still needs additional processing at the Ashdod onshore terminal. In terms of potential security threats, the existing facilities for Leviathan and especially Tamar are closer to the Hamas-controlled Gaza Strip.

Another plus for the *Energean Power* is that it can be connected with relative ease to additional fields in the area for which Energean holds the license, without the vessel

needing to change location. The Karish North field is due to come online in the second half of 2023. Energean also judges that reserves in the "Olympus" area of Block 12 slightly further south will be commercially exploitable, though its latest drilling suggested only 0.28 tcf of reserves rather than the hoped-for 0.7 tcf. By carefully phasing such exploitation, the company hopes to maintain a steady production stream and offset the decline that occurs over the usual fifteen-year lifespan of an individual field.

In total, the *Energean Power* can handle 8 billion cubic meters (bcm) of gas per year. Setting aside the sometimes-confusing mix of metric and U.S. units of measurement represented by such figures, this amount will help meet Israel's expanding demand for energy. For example, desalination alone consumes 10 percent of the country's electricity. Eventually, surplus gas will be available for export, with Egypt as the first customer—though the purchase terms for Karish and Tanin do not permit Energean to export from those two fields.

The Lebanese Angle

Energean's planning seems unaffected by Lebanon's expanding claims for its EEZ, which encroaches on the Karish field. When tugboats moved the *Energean Power* into position last week, Hezbollah issued threats, and U.S. special envoy Amos Hochstein quickly visited Beirut to calm tempers.

From Israel's point of view, Karish is firmly in its EEZ. Moreover, dealing with threats against its gas installations is nothing new—the Leviathan platform is in range of both missiles from Lebanon and rockets from Gaza. Israel's main answer to this problem is deterrence, the implication being that any action or immediate threat against such installations would be dealt with either preemptively or through massive retaliation.

Israel and European Energy Demand

The volumes achievable from Karish and similar gas fields are significant for Israel but not in global terms. For comparison, Leviathan produces about 12 bcm per year and Tamar less than 10 bcm, while Europe's annual demand for gas was around 400 bcm even before the Ukraine crisis, with Russia supplying more than 40 percent of that amount. Clearly, increased Israeli exports would have minimal impact on this imbalance.

Nevertheless, planners are considering ways to increase Israeli production. Leviathan volumes can grow, albeit with a commensurate increase in the size of its controversial offshore platform. Israel may also be able to export gas more widely than its current arrangements: by pipeline to Jordan (where 80 percent of electricity is produced by Israeli gas) and Egypt (whose apparently insatiable domestic energy market is not sufficiently fed by the country's 75 tcf of gas reserves and estimated annual production of 65 bcm).

Currently, any exports further afield would need to be funneled via one of Egypt's liquefied natural gas plants on the Nile Delta coast. Israel may eventually be able to use a floating LNG platform off its own coast to load specially built tankers with Leviathan gas, though rough seas in winter could make this approach infeasible. Another consideration is a potential pipeline to Cyprus, where an LNG vessel moored in port could supply the island's modest domestic market while still leaving most of the Israeli product available for export further abroad. A proposal for a seabed line to take Israeli gas to Greece is effectively dead after the U.S. government signaled that the plan was logistically and commercially impractical.

Meanwhile, Israel, Egypt, and the European Union are expected to sign a memorandum of understanding on increasing gas

exports, though it is difficult to see what immediate practical effect this will have. Israel's Ministry of Energy will also open another round of bidding for licenses to explore in its EEZ. The degree of interest shown in this round will indicate how international energy companies currently regard the attractiveness of Israeli prospects.

Simon Henderson is the Baker Fellow and director of the Bernstein Program on Gulf and Energy Policy at The Washington Institute.

Qatari Minister: No 'Quick Fix' to EU Gas Crisis

There is not much Qatar can do to alleviate Europe's gas crisis in the short term due to contractual commitments, Qatari Energy Minister Saad al-Kaabi tells Energy Intelligence

– but further out, in five to seven years, new Qatari LNG exports to Europe should be significant. In an exclusive interview, al-Kaabi said production from the Golden Pass LNG project in the US, where QatarEnergy partners with Exxon Mobil, is due on stream in 2024 and is "already earmarked for Europe." Up to half of new output from Qatar's 48 million ton per year North Field mega-expansion could also go West of Suez when it starts up from 2026. Al-Kaabi also serves as head of state-owned QatarEnergy, which is in active discussions with customers for the new supplies. Significantly, targeted contract durations are shorter than the 20-year deals seen in Qatar's original LNG expansion, reflecting European reluctance to lock into gas supplies long-term. "I think 10-15-year deals are probably what are most acceptable to both sides. But for us, the long-term deal, it's not just about duration, it's about price," he said. Even with such supplies, al-Kaabi expressed skepticism about Europe's ability to completely wean itself off Russian gas. Europe will find it "very difficult" to completely forgo Russian pipeline gas for more than two winters. Despite storage, fuel switching and active efforts to expand LNG imports, "a quick fix" to the EU's dependency on Russian gas does not exist.

Qatar's North Field expansion is attracting enormous interest from foreign investors, with TotalEnergies tipped to become the first of the Phase-2 partners to be selected later this month. But investors in existing Qatari projects face a rocky ride when contracts on current joint ventures expire, as Exxon and Total discovered when their prized Qatargas-1 contract was not renewed last year. Al-Kaabi revealed that QatarEnergy came close to going it alone on the North Field expansion, too. Qatar, which is generating around 1 million barrels of oil equivalent per day of net output for Exxon, Total and Shell alone, is critical for the majors. However, "if there is no value, there is no partnership, very plain and simple," al-Kaabi said. Even if joint ventures are maintained after expiry, terms will be tougher. For Exxon, which has stakes in

nine of Qatar's 14 trains, these contract renewals are especially strategic. Qatar knows the value of its LNG will likely drive a hard bargain. "An investment in Qatar is really an important downside-risk revenue maker" for partners, al-Kaabi said.

LNG is only part of a multifront, international investment drive now under way at QatarEnergy. Downstream, petrochemicals is a priority, with al-Kaabi touting QatarEnergy's planned US project with Chevron Phillips Chemical as "the largest polyethylene plant." It recently awarded construction contracts for a 1.2 million ton/yr blue ammonia project, also tipped to be the biggest of its kind. But its global upstream drive is most significant. There were doubters when the strategy launched, but QatarEnergy has been vindicated over the past year by major exploration success in Namibia. QatarEnergy, by virtue of sizable stakes in both Total and Shell discoveries, is poised to be the largest reserves holder in a significant new oil province – Total's Venus discovery is described as the largest deepwater find ever. There have also been offshore gas discoveries in Cyprus and South Africa. And in Brazil, output at QatarEnergy's offshore Sepia field is set to more than double to 400,000 barrels per day in the next couple of years.

Despite confidence in long-term gas demand, QatarEnergy is taking steps to ensure its place in the energy transition. It is investing heavily in greenhouse gas emission mitigation technology at projects. Over $250 million is being spent on such measures at the LNG expansion alone – principally carbon capture and storage (CCS) and solar power. Some 11 million tons/yr of CCS is planned by 2035. "From an overall value chain, Qatari LNG will be the least carbon footprint LNG you can get," al-Kaabi said. "We think that our buyers, and our investors that have joined us in [North Field East expansion], see this as the Rolls-Royce of projects." Transition pressures are feeding into the urgency for developing projects. "I am a

believer that you need to monetize what you can because the market conditions change, and there is a competitive advantage to go ahead of others," al-Kaabi stated.

Sweden Sets Up $23 Billion Emergency Backstop for Utilities

Niclas Rolander

Want the lowdown on European markets? In your inbox before the open, every day.

Sweden's government will provide Nordic and Baltic utilities as much as 250 billion kronor ($23.2 billion) in credit

guarantees as it seeks to prevent Russia’s energy curbs from setting off a financial crisis.

The measure is aimed at helping companies struggling to meet the surging collateral requirements needed to trade electricity, and avoid the threat of some going into technical defaults as soon as Monday, Finance Minister Mikael Damberg said at a news conference in Stockholm. Utilities registered with Nasdaq Clearing AB are eligible for the guarantees.

“The issue is currently isolated to energy producers, but unless we act, it could have contagion effects on the rest of the financial market,” the minister said on Sunday. “Ultimately, it could lead to a financial crisis.”

The surging price of energy in Europe has made it more expensive for utilities to buy and sell electricity, because of the collateral required to guarantee trades on power markets facing unprecedented turbulence. Fortum Oyj of neighboring Finland said Aug. 29 its collateral rose by 1 billion euros ($1 billion) in a week to 5 billion euros, excluding funds posted by its German subsidiary Uniper SE.

Germany agrees $65bn inflation relief package

AFP / Berlin

The German government yesterday unveiled a new multi-billion euro plan to help housesholds cope with soaring prices, and said it was eyeing windfall profits from energy companies to help fund the relief.

German businesses and consumers are feeling the pain from sky-high energy prices, as Europe’s biggest economy seeks to extricate itself from reliance from Russian supplies in the wake of Moscow’s invasion of Ukraine.

Rapid measures to prepare for the coming cold season will ensure that Germany would “get through this winter,” Chancellor Olaf Scholz said at the unveiling of the €65bn ($65bn) package.

The latest agreement, which brings total relief to almost €100bn since the start of the Ukraine war, was hammered out overnight into Sunday by Germany’s three-way ruling coalition of Scholz’s Social Democrats, the Greens, and the liberal FDP.

Among the headline measures are one-off payments to millions of vulnerable pensioners and a plan to skim off energy firms’ windfall profits. The government’s latest relief package came two days after Russian energy giant Gazprom said it would not restart gas deliveries via the Nord Stream 1 pipeline on

Saturday as planned after a three-day maintenance.
The government had made “timely decisions” to avoid a winter crisis, Scholz said, including filling gas stores and restarting coal power plants. But preventative measures, including a drive to reduce consumption, have done little to break a sharp increase in household bills.
The latest announcement follows two previous relief packages totalling €30bn, which included a reduction in the tax on petrol and a popular heavily subsidised public transport ticket.
But with the expiration of many of those measures at the end of August and consumer prices soaring, the government has been under pressure to provide new support. Inflation rose again to 7.9% in August, after falling for two straight months thanks to previous government relief measures.
The take-off in energy prices is expected to push inflation in Germany to around 10% by the end of the year, its highest rate in decades. Scholz said however that not everyone is suffering from the high consumer prices.
Some energy companies which may not be using gas to generate electricity were “simply using the fact that the high price of gas determines the price of electricity and are therefore making a lot of money,” he said.
“We have therefore resolved to change the market organisation in such a way that these random profits no longer occur or that they are skimmed off.” The trimming of windfall profits would create “financial headroom that should be used specifically to relieve the burden for consumers in Europe,” the government said in its policy paper.
The move could potentially bring “double-digit billions” of euros in relief, finance minister Christian Lindner estimated in the press conference. The government said it would push for the move to be implemented across the European Union, before going ahead with the measure on its own.
Brussels on Monday said it would prepare “emergency” action to reform the electricity market and bring prices under control. Scholz said he expected the EU to “deal quickly” with the

issue, adding that it was “very clear that we need rapid changes in this area”.
Repeating his mantra that Germans will “never walk alone” through the energy crisis, the chancellor unveiled a raft of measures, including a one-off payment of €300 to millions of pensioners to help them cover rising power bills.
The government will also target students with a smaller one-time transfer of €200, and an heating cost payment for people receiving housing benefits.
Berlin also set aside €1.5bn for work on a successor to the wildly popular nine-euro monthly ticket on local and regional transport networks. The relief package as a whole should be financed without planning to take on further debt, Lindner said.
“These measures are included within the government’s existing budget plans,” covering 2022 and 2023, he said, with the remainder covered by the windfall energy profit measures.

France faces uncertain winter as nuke power shortage looms

By Forrest Crellin, Silvia Aloisi And Nina Chestney/Paris

France, once Europe’s top power exporter, may not produce enough nuclear energy this winter to help European neighbours seeking alternatives to Russian gas, and may even have to ration electricity to meet its own needs.

France has for years helped to underpin Europe’s electricity supply, providing about 15% of the region’s total power generation.

But this year, for the first time since French records began in 2012, France has become a net power importer as its own production of nuclear energy hit a 30-year low, based on data from consultancy EnAppSys.

The supply squeeze, caused by a wave of repairs at the country’s nuclear power stations, couldn’t have come at a worse time. Europe is in the grip of an energy crisis as Russian gas supplies plummet in the wake of the Ukraine conflict and France, which derives 70% of its electricity from nuclear energy, has lost its edge.

French power prices have hit a string of all-time highs – topping 1,000 euros ($1,004.10) per megawatt hour earlier this month – on expectations the country will not have enough electricity to meet domestic demand. That surge, from prices

of around €70 a year ago, has added to a cost-of-living crisis.

“Sky-high electricity prices are an economic threat, with France’s nuclear issues seemingly turning into a greater challenge than Russian gas flows,” said Norbert Rücker, head of economics and next generation research at Julius Baer.

A record number of France’s 56 nuclear reactors have gone offline for overdue maintenance and checks related to corrosion issues that first surfaced last December. Some reactors have had to cut production during the summer to prevent rivers used to cool reactors from overheating.

As of August 29, 57% of nuclear generation capacity was offline, based on data provided by state-controlled nuclear power group Electricite de France, or EDF.

EDF’s current outage schedule sees production levels returning to around 50 gigawatts (GW) daily by December from around 27 GW now as reactors gradually come back for the winter season.

But the market, analysts and union officials think that forecast is too optimistic.

In a normal year, France produces around 400 terawatt-hours (or 400,000 GWh) of nuclear electricity and exports about 10% of it in warmer months. But during winter consumption peaks, France imports power from its neighbours, particularly Germany.

This year, EDF forecasts French nuclear production at 280-300 terawatt-hours, the lowest since 1993. France has imported power from the likes of Germany and Belgium during the summer, when it would usually be exporting it.

“That makes for scary winter prospects,” said Paris-based nuclear energy consultant Mycle Schneider.

Six analysts polled by Reuters estimated that France’s power capacity during the winter will fall below EDF’s forecasts, by 10 to 15GW a day until at least late January. This means France will need to import more power when the rest of Europe will also be facing an energy crunch, or risk blackouts.

Last week, EDF – which this year has cut its nuclear output forecasts several times and issued four profit warnings –

delayed the restart of several reactors to at least mid-November, fuelling more uncertainty.

Current power market prices reveal a lack of confidence in EDF's ability to put all its reactors back online in time for the cold season, a parliamentary source close to government said, although this source also said the availability of the fleet should improve from current low levels.

"We should be able to recover a large part of the reactors which are currently offline," the source said. "We can also ask the French to make efforts, especially to reduce consumption peaks."

The measures the French government could take include forced interruption of power supply to industrial and commercial consumers, reduced heating in public buildings, turning off street lights and controlled power cuts, he said.

French Prime Minister Elisabeth Borne has urged companies to draft energy savings plans by next month, warning they would be hit first if France has to ration gas and electricity.

The CGT union, France's biggest, is bracing for some rolling blackouts this winter.

"The situation is really worrying… to say that there won't be power cuts is a very optimistic gamble, unless one already knows for sure that the winter will be warm," said Virginie Neumayer, who follows nuclear issues at CGT.

Even if EDF can boost nuclear production, analysts say France will still not have spare power to sell to neighbours starved of Russian gas, with Italy, Britain and Switzerland seen as the countries worst hit.

"We have seen some effects over the last months already, as Spain, the UK and Italy all have had to increase their domestic production, since export volumes from France have been much lower than normal," said Fabian Ronningen of consultancy Rystad Energy.

"I think Italy would be the most affected country (if France stopped exporting electricity), as they are Europe's overall largest power importer."

EDF CEO Jean-Bernard Levy said on Monday that among the

reactors that are closed, 12 were for corrosion problems and the rest were either shut for routine maintenance delayed by the pandemic or taken off-line to prepare them for winter.
Levy said the company was “totally mobilised” to avoid more outages.
“These works are heavy, we will need hundreds and hundreds of very skilled people, we are making them come from abroad, the US in particular,” he told a business conference. He said corrosion issues required workers to operate in a part of the reactor where radiation is high, meaning exposure had to be limited.
For the coming winter, meteorologists often look at how the La Niña weather pattern develops over the summer as an indicator of a colder than average winter.
Currently, the odds of that happening are at 60% during December-February 2022-23, US government weather forecaster the National Weather Service’s Climate Prediction Center said.
Longer term, questions remain over whether EDF, which is in the process of being fully nationalised, can maintain its ageing fleet of existing power stations – mostly build in the 1980s – or build new ones quickly enough to replace them.
France’s nuclear safety watchdog ASN said in May that fixing the corrosion issues affecting EDF’s reactors could take years.
The next generation nuclear reactors EDF has built – including one in Flamanville in France, and another at Hinkley Point in England – have run billions over budget and several years beyond schedule. – Reuters

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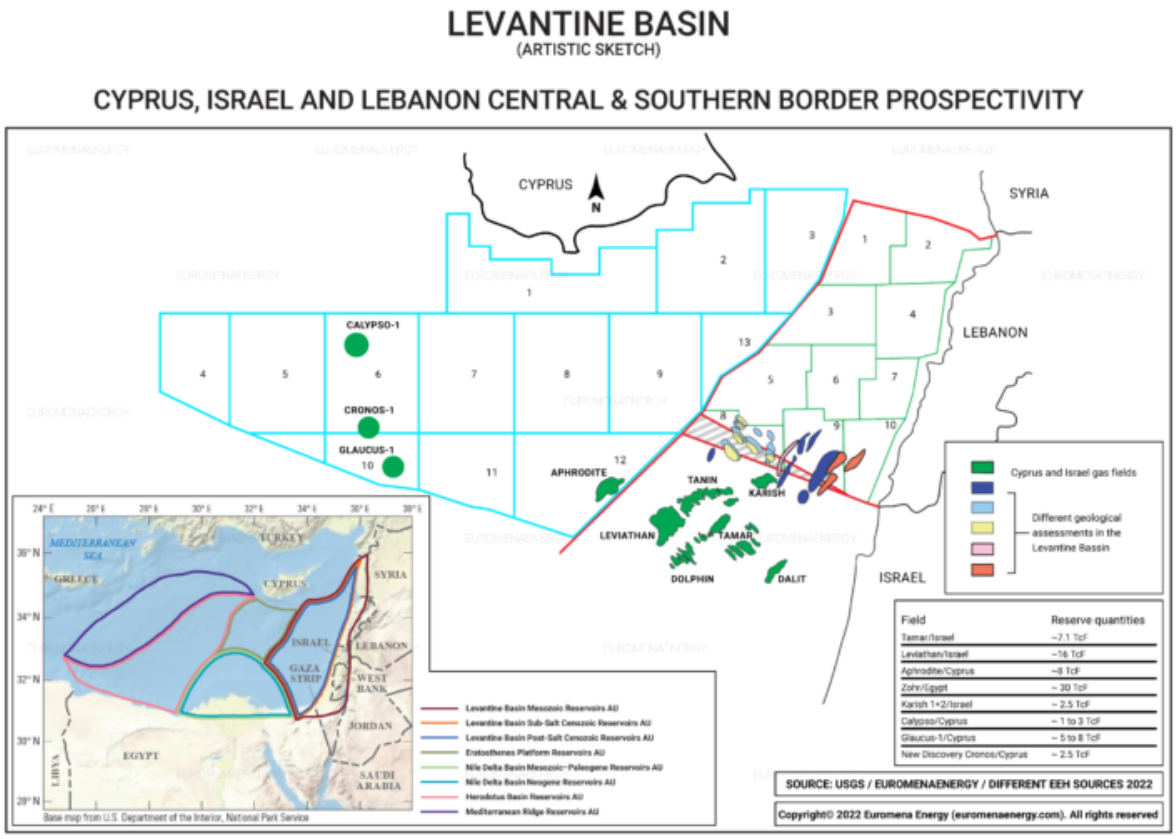
خرائط تؤكد توفّر الغاز في

مياه لبنان الإقليمية



مع وصول مفاوضات ترسيم الحدود البحرية إلى خواتيمها على الرغم من ضبابية الجواب الإسرائيلي الذي سيحمله آموس هوكشتاين إلى الدولة اللبنانية، يؤكد الخبير الدولي في شؤون الطاقة رودي بارودي لموقع "القوات اللبنانية" الإلكتروني، أن "منطقة حوض شرقي المتوسط التي هي بقعة مثيرة ومعقدة للغاية لأسباب جيو – سياسية، تحتوي على آفاق إمكانية وجود كميات كبيرة من البترول والغاز لم يتم اكتشافها واستغلالها بعد، خصوصاً أن المنطقة تحتوي على الكثير من الاحتياطي النفطي الممكن الاستفادة منه".

ويُضيف أن ما يؤكد هذا الأمر، هو نتائج مسح أكثر من 60 ألف كم من الخطوط الزلزالية الثنائية والثلاثية الأبعاد في منطقة حوض شرقي وتحديداً في لبنان، قبرص، إسرائيل "Levantine basin" المتوسط فقط حتى حدود مصر البحرية، وهي البلدان الموجودة حول حوض بلاد الشام، وذلك بين الأعوام 2002/2008 وأيضاً في العام 2016 (More than approximately 60,000km of 2D and 3D seismic lines)، والتي أظهرت أن هناك أكثر من 150 احتمالاً لوجود مكامن بترولية داخل مناطق المسح.

وفي هذا الاطار، أثبتت الدراسات التي أجرتها شركات PGSو Spectrum نجاحها في مناطق معيّنة ولا يزال يتعيّن إثباتها في NEOSو TGSو أحواض أخرى. ففي العامين 2008/2009، تم اكتشاف كميات من الغاز في المياه الإسرائيلية في حقلي تمار وليفياثان وأيضاً في حقل أفروديت القبرصي كما في حقل زهر في مصر العام 2015؛ علماً أن دراسات مركز المسح الجيولوجي الأميركي والتي أجريت في العام 2016 & 2010 خلصت إلى أن الإمكانات غير المكتشفة تبلغ ضعف إجمالي ما تم (USGS) اكتشافه من غاز (كما هو ظاهر في الخريطة المرفقة).

ويتابع، مع كل الاكتشافات الحديثة بما في ذلك الاكتشاف الذي أعلن عنه في حقل "كرونوس" في قبرص الأسبوع الماضي، يمكن ان نتحدث عن تقدير للكميات بأكثر من 52 تريليون قدم مكعب. كل هذه الاكتشافات التي تحيط بلبنان تؤكد أن هناك احتمالية عالية لاستخراج كميات تجارية من الغاز، وهذا ما تشير إليه وبشكل واضح العديد من التقييمات الجيولوجية التي أجرتها أهم الشركات العالمية في هذه الصناعة.

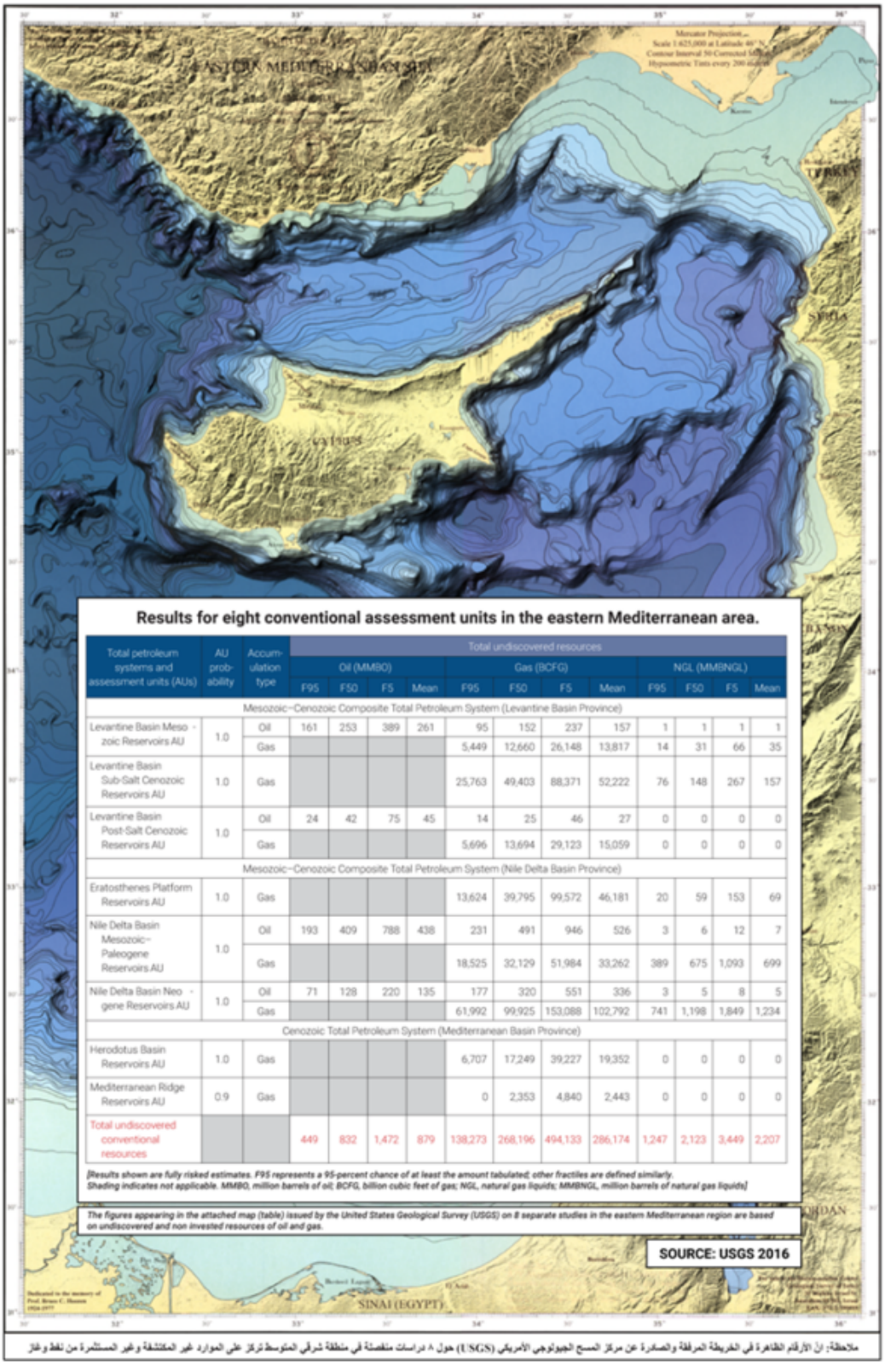
ويؤكد بارودي أنه "بناءً على العديد من النماذج المستقاة من الدراسات الجيولوجية الهيدروكربونية، كما على تحليل طبيعة باطن الأرض الصخرية، يمكن الجزم أنه يوجد ما يكفي من الموارد الطبيعية وبكميات كبيرة في شرقي المتوسط لا تزال غير مكتشفة وغير مستثمرة، لا سيما في المياه اللبنانية.

ويعتبر أن "الأهم في الموضوع أنه بعد 20 عاماً تقريباً توحّدت القيادة اللبنانية حول كيفية التعامل مع ملف يمكنه إنقاذ لبنان من المعاناة الاقتصادية والمالية التي يمرّ بها وأعني بذلك موقفهم الموحّد حول ترسيم الحدود البحرية مع إسرائيل". ويشدد في السياق، على أن "لبنان يحتاج في أسرع وقت ممكن إلى إجراء العديد من الإصلاحات المطلوبة لإعادة إنتاج نظامه المالي والقضائي والاقتصادي،

وفي حال ترافق الإصلاحات مع إبعاد ملف النفط عن المناكفات السياسية، سيعرف لبنان نهضة اقتصادية ومالية أكيدة ما يساعد على تطوير البنى التحتية التي هو في أمسّ الحاجة إليها ويُعيد الأمل إلى الشعب اللبناني وتزدهر قطاعات عدة ومنها القطاع المصرفي والتعليمي والاستشفائي".

LEVANTINE BASIN

UNDISCOVERED RESOURCES SUMMARY



Results for eight conventional assessment units in the eastern Mediterranean area.

Total petroleum systems and assessment units (AUs)	AU probability	Accumulation type	Total undiscovered resources											
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)			
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Mesozoic–Cenozoic Composite Total Petroleum System (Levantine Basin Province)														
Levantine Basin Mesozoic Reservoirs AU	1.0	Oil	161	253	389	261	95	152	237	157	1	1	1	1
		Gas					5,449	12,660	26,148	13,817	14	31	66	35
Levantine Basin Sub-Salt Cenozoic Reservoirs AU	1.0	Gas					25,763	49,403	88,371	52,222	76	148	267	157
Levantine Basin Post-Salt Cenozoic Reservoirs AU	1.0	Oil	24	42	75	45	14	25	46	27	0	0	0	0
		Gas					5,696	13,694	29,123	15,059	0	0	0	0
Mesozoic–Cenozoic Composite Total Petroleum System (Nile Delta Basin Province)														
Eratosthenes Platform Reservoirs AU	1.0	Gas					13,624	39,795	99,572	46,181	20	59	153	69
Nile Delta Basin Mesozoic–Paleogene Reservoirs AU	1.0	Oil	193	409	788	438	231	491	946	526	3	6	12	7
		Gas					18,525	32,129	51,984	33,262	389	675	1,093	699
Nile Delta Basin Neogene Reservoirs AU	1.0	Oil	71	128	220	135	177	320	551	336	3	5	8	5
		Gas					61,992	99,925	153,088	102,792	741	1,198	1,849	1,234
Cenozoic Total Petroleum System (Mediterranean Basin Province)														
Herodotus Basin Reservoirs AU	1.0	Gas					6,707	17,249	39,227	19,352	0	0	0	0
Mediterranean Ridge Reservoirs AU	0.9	Gas					0	2,353	4,840	2,443	0	0	0	0
Total undiscovered conventional resources			449	832	1,472	879	138,273	268,196	494,133	286,174	1,247	2,123	3,449	2,207

[Results shown are fully risked estimates. F95 represents a 95-percent chance of at least the amount tabulated; other fractiles are defined similarly. Shading indicates not applicable. MMBO, million barrels of oil; BCFG, billion cubic feet of gas; NGL, natural gas liquids; MMBNGL, million barrels of natural gas liquids]

The figures appearing in the attached map (table) issued by the United States Geological Survey (USGS) on 8 separate studies in the eastern Mediterranean region are based on undiscovered and non invested resources of oil and gas.

SOURCE: USGS 2016

ملاحظة: إن الأرقام الظاهرة في الخريطة المرفقة والصادرة عن مراكز المسح الجيولوجي الأمريكي (USGS) حول ٨ دراسات منفصلة في منطقة شرقي المتوسط ترتكز على الموارد غير المكتشفة وغير المستثمرة من نفط وغاز

ويضيف، إذ إن كل هذه التطورات، ولا سيما التوصل مع إسرائيل إلى ترسيم واضح للحدود البحرية يحافظ على المصالح اللبنانية، يمكنه

أن يساهم في معاودة شركات النفط التنقيب في البحر اللبناني، كما يساعد على تشجيع الشركات العالمية على التقدم إلى عمليات الاستكشاف النفطي سواء في البحر أو البرّ، ما يساعد في خلق جوّ اقتصادي مُريح يحتاجه لبنان.

ويقول في هذا الإطار، لا بد من شكر الجهود الحثيثة التي تقوم بها الإدارة الأميركية من أجل إيجاد حل عادل للنزاع الحدودي البحري مع اسرائيل.

ويتابع بارودي، على لبنان وفور الانتهاء من المفاوضات غير المباشرة مع إسرائيل، أن يعدّل إحداثيات المرسوم 6433 ويودعها كي، DOALOS لدى الأمم المتحدة ـ قسم شؤون المحيطات وقانون البحار يحافظ على حقوقه المكتسبة كما على إسرائيل أن تفغل الشيء نفسه.

أما بخصوص انسحاب الشركة الروسية "نوفاتيك" من تحالف شركات "إيني" و"توتال"، فيؤكد أنه "أمر طبيعي مع وجود العقوبات الأميركية على الشركة الروسية، إذ لا تستطيع الأخيرة أن تستقبل أو أن تحوّل أموالاً طالما أن نظام العقوبات يطاولها".

ويؤكد بارودي، "نعم يستطيع لبنان الخروج من النفق المظلم، شرط أن تتكاتف الإرادات الحسنة للعمل على إنقاذه".

Russia's Oil Resilience Faces Bigger Test as EU Ban Looms

Russia defied expectations of a collapse in oil production following its invasion of Ukraine. But Moscow will have to redouble its efforts to find new buyers if it’s to keep output from shrinking in the coming months.

After plunging in the immediate aftermath of its offensive in February, Russian production has rebounded over the past three months as domestic refining boomed and Asian customers stepped in to take shipments shunned by Western buyers. Yet a looming European Union ban on most Russian crude, as well as a gathering economic slowdown, will strike a blow to the country’s producers.

“Russian oil companies have been enjoying the beauties of the summer season — soaring domestic demand and the absence of EU sanctions have allowed them to ramp up production,” said Viktor Katona, head of sour-crude analysis at data firm Kpler. “As we look into the immediate future, that is bound to change.”

Russian output of crude and condensate — a lighter type of oil

– reached a wartime high of around 10.8 million barrels a day in July. Volumes may fall to about 10.5 million a day when the EU ban kicks in in December, Katona said. Analysts at Rystad Energy AS see some 10.1 million a day by year-end, while the International Energy Agency expects a slump of about 2 million a day by the start of 2023.

Russia's Energy Ministry didn't respond to requests for comment on its outlook for future production as the EU restrictions approach.

The embargo, which will apply to imports of seaborne crude and most piped supplies from Dec. 5, is set to remove some 1.3 million barrels a day from the European market, IEA estimates show. A ban on oil-product imports follows on Feb. 5, likely cutting a further 1 million barrels a day, the IEA said last week.

Many traditional buyers are already refusing to take Russian barrels, prompting Moscow to sell to customers in Asia, often at a substantial discount. Russia has this year raised its seaborne crude flows to the region by almost 800,000 barrels a day, according to vessel-tracking data compiled by Bloomberg.

But the country can't count on Asia to mop up all the spare barrels once the EU ban comes into effect as the region is already saturated with Russian crude, according to analysts at Kpler, Rystad and Moscow-based BCS Global Markets.

"In the short term, Asia is already taking almost all that it can," said Ron Smith, an analyst at BCS.

A loss of Russian production equal to all its current seaborne exports to Europe is a worst-case scenario and unlikely to materialize, said Sergei Vakulenko, an independent expert with more than 25 years' experience in the Russian oil industry. He expects that traders globally will be eager to find buyers for the extra Russian volumes, given a dearth of spare production capacity elsewhere.

Vakulenko sees Russian output remaining roughly flat until year-end, a view shared by Kirill Bakhtin, a senior oil and gas analyst at Sinara Bank.

“We expect more or less stable production of Russian liquid hydrocarbons in the amount of 10.8 million barrels per day until February 2023,” thanks to successful efforts to redirect oil from Europe to Asia, Bakhtin said.

In the first couple of weeks this month, Russia’s daily crude oil and condensate output averaged about 10.47 million barrels a day, according to a Kommersant newspaper report Monday. The 3% drop from July is likely driven by seasonality and not by long-term factors such as sanctions, with much of the lower supply coming from a group of smaller producers, including gas giant Gazprom PJSC, according to the Energy Ministry’s CDU-TEK data seen by Bloomberg.

Refinery Demand

Russia’s seaborne exports have recently slid from their spring peaks, but oil producers have been bolstered by growth in domestic refining amid higher seasonal fuel demand at home and abroad.

Yet toward the end of the year, any attempt to process more crude domestically and increase output of lighter products — which may find a market in Europe before the February ban is enforced — would also mean production of heavier fuels that are harder to sell in the colder months.

In spring, Russian producers were able to find buyers for their fuel oil in the Middle East after the US imposed its own ban. But demand in that region may ebb as the weather cools, limiting Russia’s ability to export the heavy product, said Mikhail Turukalov, chief executive officer of Moscow-based Commodities Markets Analytics LLC.

In the colder months, Russia also lacks the logistical

capability needed for a major hike in fuel-oil exports, Turukalov said.

“This winter, oil-processing in Russia will hardly be able to grow enough to compensate for the expected oil-export declines,” he said.

– With assistance by James Herron, and Julian Lee

بارودي: مصلحة لبنان في استكمال المفاوضات بموقف موحّد

أكد الخبير الدولي في مجال الطاقة رودي بارودي أن “لا يزال هناك أخذ وردّ في مسألة ترسيم الحدود البحرية مع إسرائيل، ومصلحة لبنان تكمن في الاتفاق الداخلي واستكمال المفاوضات بموقف موحّد”. واعتبر في حديث لـ”صوت كل لبنان””93.3″ أن “الموقف اللبناني مرتاح ولدينا مصلحة بأن تنتهي الأمور في أقرب وقت”، لافتاً إلى أن الأجواء إيجابية ووصلنا إلى نهاية الشوط لنبدأ مرحلة الاستكشاف”.

Cheaper, changing, crucial: the rise of solar power

AFP/Paris

Generating power from sunlight bouncing off the ground, working at night, even helping to grow strawberries: solar panel technology is evolving fast as costs plummet for a key segment of the world's energy transition.

The International Energy Agency says solar will have to scale up significantly this decade to meet the Paris climate target of limiting temperature rises to 1.5 degrees Celsius above pre-industrial levels.

The good news is that costs have fallen dramatically.

In a report on solutions earlier this year, the Intergovernmental Panel on Climate Change said solar unit costs had dropped 85 percent between 2010 and 2019, while wind fell 55%.

"There's some claim that it's the cheapest way humans have

ever been able to make electricity at scale," said Gregory Nemet, a professor at the University of Wisconsin-Madison and a lead author on that report.
Experts hope the high fossil fuel prices and fears over energy security caused by Russia's invasion of Ukraine will accelerate the uptake of renewables.
Momentum gathered pace last Sunday with the ambitious US climate bill, which earmarks $370bn in efforts to cut greenhouse gas emissions by 40% by 2030.
An analysis by experts at Princeton University estimates the bill could see five times the rate of solar additions in 2025 as there were in 2020.
Nemet said solar alone could plausibly make up half of the world's electricity system by mid-century, although he cautioned against looking for "silver bullets".
"I think there really is big potential," he told AFP.

Rapid changes

The "photovoltaic effect" – the process by which solar cells convert sunlight to electrical energy – was first discovered in 1839 by the French physicist Edmond Becquerel.
After decades of innovations, silicon-based solar cells started to be developed in the United States in the 1950s, with the world's first solar-powered satellite launched in 1958.
The IPCC said of all energy technologies, small-scale ones like solar and batteries have so far proved quicker to improve and be adopted than bulkier options like nuclear.
Today, almost all of the panels glimmering on rooftops and spreading across vast fields are made in China using silicon semiconductors.
But the technology is changing quickly.
In a recent report, the IEA said these new solar cells have proven to be one-fifth more efficient in converting light to energy than standard modules installed just four or five years ago.
There are also a host of new materials and hybrid cells that

experts predict could supercharge efficiency.
These include cheap, efficient and lightweight “thin film” technologies, like those using perovskites that can be printed from inks.
Experts say they raise the prospect of dramatically expanding where solar energy can be harvested – if they can be made durable enough to withstand a couple of decades of use.
Recent research has raised hopes that it could be possible.
In one study, published in the journal Science in April, scientists added metal-containing materials to perovskite cells, making them more stable with efficiency near traditional silicon models.
Other research mixes materials for different purposes.
One study in Nature used “tandem” models, with perovskite semiconductors to absorb near-infrared light on the solar spectrum, while an organic carbon-based material absorbed ultraviolet and visible parts of the light.
And what happens after sunset?
Researchers from Stanford said this year they had produced a solar cell that could harvest energy overnight, using heat leaking from Earth back into space.
“I think that there’s a lot of creativity in this industry,” said Ron Schoff, who heads the Electric Power Research Institute’s Renewable Energy and Fleet Enabling Technologies research.

Location, location

Generating more energy from each panel will become increasingly crucial as solar power is rolled out at greater scale, raising concerns about land use and harm to ecosystems.
Schoff said one efficiency-boosting design that is becoming more popular for large-scale projects is “bifacial” solar.
These double-sided units absorb energy not just directly from the sun’s rays, but also from light reflected off the ground beneath.
Other solutions involve using the same space for multiple purposes – like semi-transparent solar panels used as a

protective roof for strawberry plants or other crops.
India pioneered the use of solar panels over canals a decade ago, reducing evaporation as they generate power.
Scientists in California have said that if the drought-prone US state shaded its canals, it could save around 63bn gallons.
Construction on a pilot project is due to begin this year.

All shapes, sizes

Experts say solar will be among a mix of energy options, with different technologies more suitable for different places.
Schoff said ultimately those energy grids with more than 25% solar and wind need ways to store energy – with batteries or large-scale facilities using things like pumped water or compressed air.
Consumers can also play their part, said Nemet, by shifting more of their energy use to daytime periods, or even hosting their own solar networks in an Airbnb-style approach.
He said the modular nature of solar means it can be rolled out in developing countries with sparse access to traditional grids.
“You could have solar on something as small as a watch and something as big as the biggest power plants in the world,” he said.
“I think that’s what’s making people excited about it.” – Reuters