Tests under way to flow Israeli gas via EMG pipeline to Egypt: source

Tests to flow Israeli gas through the East Mediterranean Gas (EMG) pipeline to Egypt are now under way and are expected to be concluded at the end of this month ahead of the startup of significant exports later in the year, an industry source told S&P Global Platts Thursday.

US-based producer Noble Energy and its Israeli partner Delek Drilling – together with Egyptian-owned Sphinx EG – in September last year agreed to buy a 39% stake in the idled EMG pipeline for $518 million as part of plans to use the pipeline in reverse for Israeli gas to flow to Egypt.

“Tests are under way and are on track to be completed as scheduled by the end of June. Once that is done, gas from the Tamar field can start to flow through the EMG pipeline on an interruptible basis,” the source said.

Noble could not be reached for comment, while Delek Drilling declined to comment.

The pipeline – which runs for 90 km off the Israeli and Egyptian coasts – connects the Israel pipeline network from Ashkelon to the Egyptian pipeline network near El Arish.

It started operations in 2008 to flow Egyptian gas to Israel until 2012 when operations were halted as Egypt’s gas production began to decline after the Arab Spring the previous year.

Noble – operator of both the producing Tamar field and the giant Leviathan field due online at the end of 2019 – has said it expects to flow at least 350 MMcf/d (10 million cu m/d) through the EMG pipeline once Leviathan starts.

The pipeline has a design capacity of 7 Bcm/year – or 19 million cu m/d.

The deliveries will be part of a deal signed in February 2018 to supply Egypt’s Dolphinus Holdings with 64 Bcm of Israeli gas over a 10-year period.

OFFTAKE DEAL

Noble and Delek on Wednesday also agreed a deal to supply gas from Leviathan to Israel’s main utility, the Israel Electric Corp. (IEC), for up to two years from its startup.

The agreement – worth some $700 million – will give the Leviathan partners another guaranteed market for the first stage development of the giant field.

For IEC, the agreement gives it access to gas supply ahead of the startup of the Energean-operated Karish field offshore Israel.

The terms of the supply agreement will start on October 1, 2019 or the date Leviathan starts up – whichever is later –

and end on June 30, 2021, or on the date Karish starts up, whichever is earlier.

According to a statement on the deal, if the startup of Karish is delayed, the Leviathan partners and IEC can extend the supply deal “by mutual consent.”

Delek Drilling CEO Yossi Abu said the $700 million offtake agreement with IEC was a “landmark win” for both parties.

“It is good for us, as it means the output from stage one of the development of the Leviathan field is now close to being fully taken up,” Abu said.

“For IEC, they have the guarantee of security supply from a low carbon energy source which will enable them to reduce their reliance on coal and reduce cost to both industrial and ordinary consumers,” he said.

“It also secures the status of the Leviathan gas field as an anchor resource for the entire region.”

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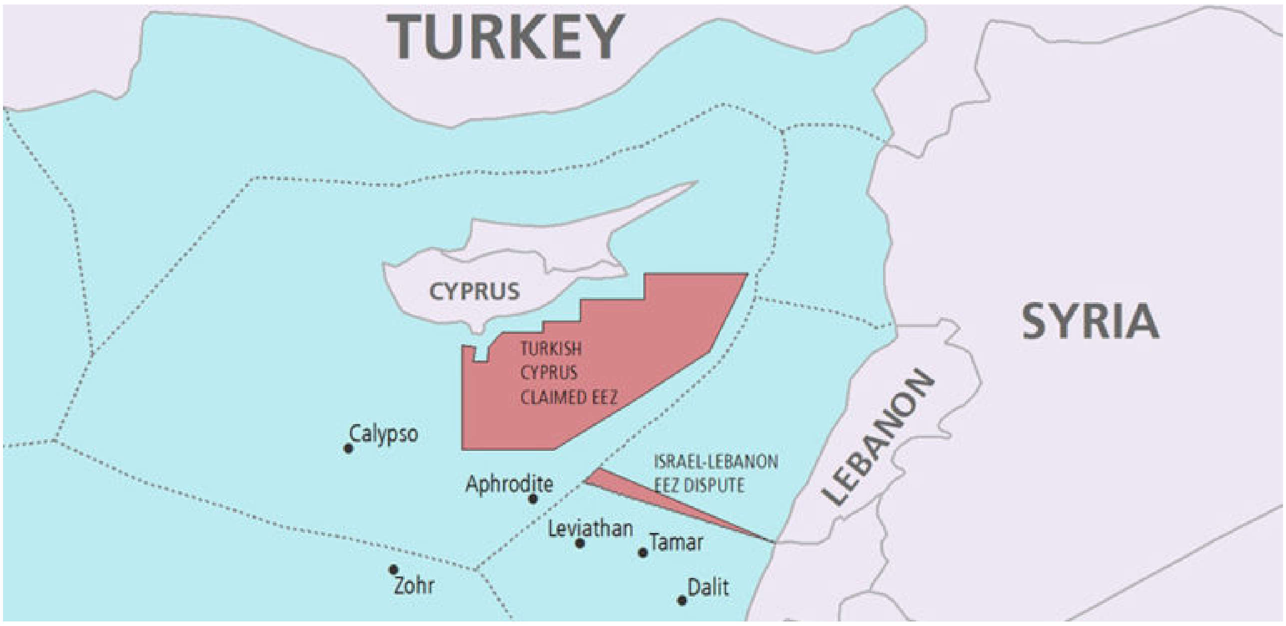
ENERGY: Competition heats up in simmering Cyprus ‘gas war’



While the Natural Gas Public Company (Defa) plans to finally seal a contract in October for the installation of an FSRU plus infrastructure, Greece's Energean is pushing hard for the Cyprus market to be opened up.

Defa's troubled tender process – launched last year – closes on July 12, its fourth attempt to nail down a supplier of natural gas.

It has extended the deadline several times since "to allow companies interested in bidding sufficient time to put together top-quality proposals so Defa has a better chance of success," an official Cypriot source told S&P Global Platts.

Defa invited expressions of interest for the supply of LNG for the FSRU, which will be connected to the main power station at Vassiliko.

"There are two processes in the EoI. One calls for expressions of interest in the LNG SPA, which will involve negotiations for mid-term, 3-5 year LNG SPAs. The second invites expressions of interest for master sales agreements that will enable Defa to procure cargoes from the spot market," the source said.

"The September 6 deadline relates to the SPA process and includes the first lot of MSA suppliers. The MSA will last up to June 2023 and it will be assessed annually after each subsequent September 6," the source added.

"The first assessment starts September 6, 2019. Any company that submits an MSA after that date and before September 6, 2020, will be assessed in the next assessment period."

"That will last up to four years. Defa plans multiple MSA agreements that will lead to mini-tender each time it wants to procure cargo from the spot market. Defa intends to arrange to have 15-20 MSAs available."

But as this process unfolds, Energean Oil & Gas is lobbying hard to be allowed access to the Cyprus market so it can sell its Israeli gas via pipelines to Vassiliko by early 2021.

Officials from Energean visited Cyprus last week to make their pitch to Energy Minister George Lakkotrypis and convince other stakeholders, such as the Cyprus Electricity Authority (EAC) and the employers federation (OEB).

Although the government has rebuffed Energean's "unsolicited offer" the Greek firm insist they can deliver quicker than the FSRU project and that competition should be allowed for the benefit of the end-user.

"We pointed out that Cyprus should not rely only on one source: all the countries in the region combine pipeline gas with LNG to enhance security of supply," a company source told the Financial Mirror.

"Energean emphasised the fact that we can supply Cyprus with natural gas in 2021 -no way that FSRU will be ready by then- and at really competitive prices," the source added.

Even if the figures add up financially, Nicosia is reluctant to abandon its plan as it doesn't want to be dependent on a single supplier and forsake the construction of an LNG terminal.

“Defa [has] selected the FSRU solution and it has secured a €101 mln grant from the European Union, which gives the project economic sense, more so than anything in the past,” said an official source said.

Energean has submitted to the Cyprus Energy Regulatory Authority (CERA) an updated proposal to supply the island with natural gas through an FPSO, which will commence operations in March 2021 in the EEZ of Israel.

Legal action

There are even some suggestions the Greek firm could seek legal action to force its way into the Cyprus supply chain.

In its presentation to officials in Nicosia, Energean said it has the rights to export by the Israeli government, it has partners “willing to invest” in the $315 mln pipeline and “can work with the authorities to “achieve all the energy objectives”.

Energean said it can seek to obtain EU support to make the supply of gas even more competitive while reminding that Cyprus is legally obligated to switch from diesel to gas power generation.

Last month, Energean submitted an updated technical report detailing the way natural gas will be imported to Cyprus through pipelines from Karish offshore block to the “Energean Power” Floating Production, Storage and Offloading unit, and from there through a pipeline to Vassiliko where it will emerge onshore.

Energean has also signed a Letter of Intent (LOI) for the supply of natural gas to private power generation licence holders in Cyprus.

The company argues it would establish competition in the

Cypriot energy market as a whole, as there are now options for the supply of natural gas to private electricity producers.

The Greek firm said it has already initiated the procedures for obtaining the necessary Natural Gas Export and Pipeline Construction Licences from its FPSO in the Israeli EEZ to Vasiliko.

CEO of Energean Mathios Rigas said in May: “We have submitted a comprehensive Plan to supply the Republic of Cyprus with natural gas through the infrastructure that Energean is constructing and will be operating in Israel.”

The company argues that its solution is “cheaper and quicker than any other” and that having multiple supply sources strengthens security of supply as well as competition for the benefit of consumers and the economy.

“We are at the disposal of the Cypriot Government and the Cypriot Authorities to discuss how this Plan could be implemented so that Cyprus will be able to start using affordable natural gas in March 2021, provided there are no delays in permitting procedures,” said Rigas.

Emerging market

Complicating matters is that the government has declared the natural gas market in Cyprus as isolated and emerging.

It effectively means that Defa is not only the sole importer and distributor of natural gas on the island but also the solitary entity allowed to supply the fuel.

Defa’s grip on the market squeezes out potential suitors wanting to supply the island with natural gas.

As the market was declared an emerging one, observers say the energy regulator is not obliged to accept or examine applications from companies like Energean wanting to secure a supply permit.

Defa issued a tender for the design, construction and operation of a floating LNG import terminal to be located at Vassiliko Bay, near Limassol, separately of efforts to import the fuel by January 2020 to avoid emissions fines.

Last July, Defa described as “unsolicited” a proposal from Energean to build a pipeline to Cyprus from Israeli offshore gas fields.

DEFA chairman Simeon Kassianides said at the time that the proposal was not submitted as part of a call for tender.

The new tender, issued on behalf of the Natural Gas Infrastructure Company (ETYFA), is for a floating storage and regasification unit (FSRU), a jetty for mooring the FSRU, a jetty borne gas pipeline and related infrastructure, all of which is expected to cost some EUR 250 mln.

The LNG terminal will be completed in 2020 and has secured a funding of 40%, or up to EUR 101 mln, as a grant from the EU under the Connecting Europe Facility (CEF) financial instruments.

Egypt mulls licensing round to cover western parts of Mediterranean waters

London – Egypt is looking at launching a new license round for blocks in the western parts of Egypt’s Mediterranean waters following on from two other recent exploration rounds, a source at state-owned Egyptian Natural Gas Holding Company (EGAS) said Thursday.

Egypt has had significant success in recent years with major gas discoveries, including the supergiant 30 Tcf (850 Bcm) Zohr find and a string of other finds both on- and offshore.

In February, BP, Eni, ExxonMobil and Shell were among companies awarded blocks in a wide-reaching exploration round covering a number of East Mediterranean offshore blocks and some onshore zones.

A round was also launched in March for 10 blocks in Egypt’s sector of the Red Sea.

Some 11 blocks were also now expected to be put up for auction in western parts of offshore Egypt’s Mediterranean waters, with reports that the round could be launched by the end of 2019 or the start of next year.

“The decision has not been announced yet about the timing, or the offer,” a source at EGAS said Thursday. “We are just thinking about it.”

Egypt has offered attractive terms to companies looking for a share of the country’s vast resources.

Self-sufficiency

Zohr — and additional Egyptian gas field start-ups — made the country self-sufficient in gas last September and Egypt has since become an exporter of gas once again, having been forced to import LNG for several years to meet domestic demand.

Its gas production rose to some 58 Bcm in 2018, according to estimates from BP and the International Energy Agency, its highest level since 2012.

The oil ministry has said it expected production to increase to some 80 Bcm/year in 2020.

Zohr alone could produce at as much as 3.2 Bcf/d (the equivalent of 91 million cu m/d, or 33.2 Bcm/year) in the coming years.

Despite the optimism, the IEA said earlier this month it expected Egyptian gas output to peak at 77 Bcm by 2024 at an annual growth rate of around 4.8%.

The IEA also said it expected the policy of prioritizing domestic use will remain in force for the foreseeable future and that Egypt’s exports will remain at a maximum of 4 Bcm/year.

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Turkey facing difficult options in eastern Mediterranean

Greek Cypriot Energy Minister George Lakkotrypis last week announced a new deal that had been agreed with a consortium of three gas producing companies – Shell, Noble Energy and Israeli company Delek – also called the Aphrodite Consortium.

The earlier version of the deal provided for the extraction and sale of about 140 billion cubic metres gas to a liquefaction plant in Egypt, but the consortium was unhappy because it was based on a fixed revenue-sharing formula and on the assumption that oil prices, which are indirectly linked to the gas prices, would hover around $70 a barrel.

Some analysts disagreed with this assumption and estimated the oil prices might drop below $70 in the future. Bearing this in mind, the consortium wanted to improve the revenue-sharing arrangement of the first version of the deal.

The modified version of the deal provides that the consortium’s share will increase when the oil prices drop below $70 a barrel, and the government share will increase when oil prices go higher. In other words, the consortium wanted to guarantee its own profits and did not mind giving a bigger share to the government if prices remain high.

In exchange for this improvement, the consortium agreed to start exporting gas in 2024-25. In the first version, there was no obligation to stick to a timetable.

Lakkotrypis said Cyprus would earn $9.3 billion over 18 years. Depending on the fluctuations of the gas prices, this corresponds to about $516 million a year during the life of the project.

He may have hastened to announce this incomplete deal to send a message to Turkish Cypriots that they are going to miss an opportunity if they do not give up their insistence on shared sovereignty of the Republic of Cyprus. The deal is incomplete because the consortium has yet to find a market for gas to be liquefied in Egypt. It is not guaranteed, because the liquefied gas is up to 25 to 30 percent more expensive than the pipe-born gas.

Exploration and extraction of gas became an important subject in Greek Cypriot politics when in 2011 the U.S.-based company Noble Energy discovered rich reserves in the Aphrodite gas field off the southeast coast of the island.

The elephant in the room is Turkey.

After Lakkotrypis’ announcement, Turkish President Recep Tayyip Erdoğan last week said such agreements breach the rights of Turkish Cypriots. “Our kinsmen in northern Cyprus have rights according to international law in the same way that Greek Cypriots have. We will not allow these rights to be usurped by those who have no business (in the region).”

Turkey will likely oppose any attempt to upset the sensitive balance between Turkish and Greek Cypriots’ rights in the island. Although the Greek Cypriots acknowledge the Turkish Cypriots’ legitimate rights and say it loudly, they stop short of committing themselves to guaranteeing it in an internationally binding manner. They prefer to keep this option subject to their volition.

Lakkotrypis’ statement coincided with two other statements coming from France and the United States, and Turkey was not pleased to hear them.

French president Emmanuel Macron said on Monday that France would act in solidarity with Greece, which is threatened in the eastern Mediterranean.

The other statement came from Matthew Palmer, the deputy under-secretary in the U.S. State Department. He said the United States has 10 warships, 130 fighter aircraft and about 9,000 soldiers in the region, and criticised Turkish naval activities off the coast of Cyprus and asked for them to stop.

Both the United States and France make such statements to protect the economic interests of their companies rather than for the sake of international legitimacy.

These narratives and counter-narratives indicate that dark clouds are gathering over the eastern Mediterranean. It does not necessarily mean that a clash is likely. However, in this strained atmosphere, the best course of action for Turkey would be to explain to the international community why the Greek Cypriots have no right to ignore the Turkish Cypriots’ legitimate rights and for the Greek Cypriots, France, and the United States to understand that Turkey will not give up these legitimate rights.

Hydrocarbures: Russes et Européens intéressés par le Liban, selon une ministre

Des entreprises russes et européennes manifestent de l’intérêt pour investir dans le secteur naissant du pétrole et du gaz au Liban, a affirmé la ministre de l’Energie Nada Boustani, dont le pays se lance tout juste dans l’exploration d’hydrocarbures en Méditerranée.

Confrontées à des difficultés économiques, les autorités libanaises misent beaucoup sur ce dossier.

Mme Boustani, 36 ans, dit espérer que «les Libanais vont profiter prochainement de ce secteur, qui ouvre la voie à de nombreux investissements et opportunités d’emploi».

Le Liban a signé en 2018 son premier contrat d’exploration pour deux blocs avec un consortium alliant le français Total, l’italien ENI et le russe Novatek. Les travaux dans le bloc 4 doivent débuter en décembre.

«Nous avons de grands espoirs dans ce domaine», affirme Mme Boustani, dans un entretien mercredi avec l’AFP.

En avril, Beyrouth a lancé un deuxième appel d’offres pour l’exploration de cinq nouveaux blocs, avec comme date butoir janvier 2020.

«Plusieurs grandes compagnies ont visité le Liban», explique Mme Boustani, citant Gazprom (Russie) et Lukoil (Russie). Les compagnies russes sont «très intéressées», selon la ministre, plus jeune membre du gouvernement.

— Différend avec Israël —

Elle a par ailleurs indiqué jeudi sur Twitter qu’elle avait rencontré le chef régional de BP (Grande-Bretagne) qui a dit que sa société était aussi «intéressée» par l’appel d’offres.

Le Liban a en outre reçu des assurances des Etats-Unis selon lesquelles «il n’y a aucun inconvénient à la participation d’entreprises américaines», indique Mme Boustani. «C’est une avancée positive», ajoute-t-elle.

Les rapports avec les Etats-Unis sont en effet parfois tendus, notamment en raison du mouvement chiite du Hezbollah, un poids lourd de la vie politique libanaise, classé «organisation terroriste» par Washington.

En attendant, le Liban doit notamment résoudre des différends sur la démarcation des frontières maritimes avec ses voisins.

Une partie du bloc 9, où des travaux de forage doivent débuter en mai 2020, se trouve dans une zone maritime disputée avec

Israël, pays avec lequel le Liban est techniquement en état de guerre. Total a cependant indiqué que la dispute frontalière concernait «moins de 8% de la surface du bloc».

Dans ce dossier, c'est Washington qui fait la navette entre les deux pays pour ouvrir la voie à des négociations et permettre une démarcation de leurs frontières. Pour le moment, aucune avancée n'a été rendue publique.

«Si on se met d'accord sur le début de négociations avec Israël, outre les pourparlers concernant la frontière maritime, il y aura la recherche d'un mécanisme pour partager les champs maritimes communs, sous supervision internationale», avance Mme Boustani.

Le Liban a aussi un problème à résoudre avec la Syrie. Les blocs 1 et 2, concernés par le dernier appel d'offres, se trouvent près d'une frontière maritime dont Damas a toujours refusé de discuter du tracé.

«Il y a certainement moyen (de négocier) avec la Syrie. Il est nécessaire de se pencher sur la question très prochainement», souligne Mme Boustani.

«Le fait que le gouvernement a accepté de mettre les deux blocs (à la frontière) dans l'appel d'offres, signifie qu'il savait qu'un accord serait trouvé» avec Damas, a précisé la ministre.

Mais les divisions au sein de la classe politique libanaise pourraient compliquer les choses.

— Alliances régionales —

Le Premier ministre Saad Hariri refuse catégoriquement toute ouverture vers Damas, tandis que le Hezbollah, allié du président Bachar al-Assad, ou encore le Courant patriotique Libre, le parti du président Michel Aoun, y sont favorables.

«Les Russes pourraient négocier entre les Libanais et les

Syriens», estime Laury Haytayan, experte sur la gestion des hydrocarbures au Moyen-Orient, qui précise que Moscou s'intéresse au bloc 2.

Les récentes découvertes de gaz naturel en Méditerranée orientale ont conduit plusieurs pays de la région à multiplier les partenariats stratégiques.

En début d'année, sept pays, dont l'Egypte, Israël et Chypre ont annoncé leur intention de lancer un forum de coopération régionale sur le gaz. Le Liban n'en fait pas partie, en raison de la présence de l'Etat hébreu.

«On a ouvert la voie aux négociations avec Chypre, et on fait la même chose avec l'Egypte», indique toutefois Mme Boustani.

«Il est nécessaire de poursuivre les accords avec ces deux parties, a-t-elle ajouté.

Le Liban et Chypre ont déjà annoncé en avril oeuvrer en vue «d'un accord bilatéral» concernant l'exploitation des ressources énergétiques.

Un accord avec l'Egypte et Chypre permettrait au Liban de sécuriser sa place à l'échelle régionale dans ce domaine, selon Mme Haytayan.

Schedule tight to meet December drill deadline

Lebanon remains on track to have its first exploration well drilled in maritime Bloc 4 by December this year, though the schedule is tight, according to an expert closely involved in the field.

Abboud Zahr, Managing Director at DEP Oil and Gas, which is involved in providing services to the companies involved in the planned exploratory drilling, told LOGI that Total – the lead company in the qualified consortium – was set to complete by August three studies required for drilling to commence. These include the Environmental Impact Assessment, environmental baseline assessment and social baseline assessment.

At that point, they must be approved by Lebanese authorities.

In the meanwhile, Total is set to award "at least 20 contracts" for logistics on shore – in Beirut's port – and for other services and equipment, including for the rig or drill ship that will go about drilling Lebanon's first ever exploratory well, Zahr said.

"These activities, as they need a long time for preparation, should be awarded very soon, otherwise the December deadline will not be met," Zahr said.

Once the exploratory drilling commences, it will take about 6 weeks to reach the target point – some 4400 meters below sea level. If gas is found, a second well, known as an appraisal well, will be drilled to determine the quantity and quality of the gas, which would answer the billion-dollar question of whether Lebanon has a commercially viable find.

“To be realistic, the probability to find something in this first well is maximum 25 percent,” Zahr said.

The qualified consortium has committed to drilling at least two exploratory wells in each of the two blocs they have qualified for.

In the case the find is commercially viable, a third well, known as a production well, will have to be drilled, and a large amount of associated infrastructure must be constructed. Before gas can begin pumping.

Zahr estimated that this entire process, in the best case scenario, would require about a decade.

Egypt to Develop 11 Oil and Gas Projects in FY 2019/20

Egypt plans to develop and operate 11 exploration and production (E&P) projects in the oil and gas field during fiscal year (FY) 2019/20 to be in the deep waters of the Mediterranean Sea, the Gulf of Suez, Delta and the Western Desert, Daily News Egypt reported.

The 11 projects are expected to increase Egypt's production by 2.5 billion cubic feet per day (bcf/d) of natural gas and 32,000 barrels per day (b/d) of crude oil and condensates, said Tarek El Molla, Minister of Petroleum.

Egypt will develop the Zohr natural gas field to reach maximum production, and Raven natural gas field during the third phase of the North Alexandria project. The projects will further include the West Nile Delta, the fields Southwest of Baltim, 9B phase of West Delta, Western Burullus, phase 2 of North Sinai fields, as well as several projects in the Delta.

The projects will further be directed at north-west of October in the Gulf of Suez, the development of the Iris; Qasr and Bat in the Khalda Petroleum Company fields in the Western Desert, and the project aimed to boost marine shipping facilities' capacity for crude oil for the Western Desert Operating Petroleum Company (WEPCO).

Lebanon says Russia, Europe eye investment in oil and gas

Beirut (AFP) – Russian and European firms are mulling investments in Lebanon’s nascent oil and gas sector as it prepares to launch offshore drilling by the end of 2019, Energy Minister Nada Boustani said.

“Several big companies have visited Lebanon,” she told AFP in an interview.

“We are talking about Gazprom (Russia), Lukoil (Russia), and soon, the (Britain) BP firm is expected to visit,” the 39-year-old minister said in her office in Beirut.

“There is also interest from Total (France), ENI (Italy) and Novatek (Russia).”

US firms have not yet participated in offshore bidding rounds.

But US State Department official David Satterfield told Boustani on Wednesday that Washington “has no problem with US firms participating” in the energy sector, she said, calling this a “positive step”.

Last year, Lebanon signed its first contract to drill for oil and gas in its waters.

A consortium comprising energy giants Total, ENI and Novatek took the first two of its 10 blocks, including one disputed by neighbouring Israel with which Lebanon has fought several wars.

On April 5, Lebanon invited international consortia of at least three companies to bid for five more blocks by the end of January 2020.

On Thursday, Boustani wrote on Twitter that she had met with the regional head of BP who said his company was “interested in the second licensing round”.

Two more of the blocks now up for tender are also adjacent to Israel’s waters.

-‘Negotiations with Israel’-

Israel and Lebanon are technically at war, although the last Israeli troops withdrew from southern Lebanon in 2000 after two decades of occupation.

This has complicated attempts to demarcate land and maritime borders with Israel, which produces natural gas from reserves off its coast in the Mediterranean.

In recent weeks, Satterfield has been mediating in indirect negotiations between the two countries over their disputed maritime border, whose delimitation could affect offshore exploration.

“If we agree on entering talks with Israel, then in addition to negotiations over the maritime borders, we will also discuss ways to divide offshore oil and gas fields,” Boustani said.

Lebanon is set to start drilling in block 4 in December, and later in the disputed block 9.

Last year, Total said it was aware of the border dispute in less than eight percent of block 9 and said it would drill away from that area.

In the wider region, Lebanon is also considering agreements with other neighbours.

In January, representatives of seven Mediterranean countries – including Egypt, Cyprus and Israel – agreed on establishing the East Med Gas Forum, a Cairo-based body that aims to create a regional gas market to benefit member states.

Lebanon refused to take part in the forum because of the participation of Israel, but it has since started working on separate deals.

In April, Lebanon and Cyprus said they were working together towards a deal over adjacent oil and gas exploration zones in the Mediterranean.

– Regional alliances –

“We have made way for negotiations with Cyprus and we are doing the same with Egypt,” said Boustani, the youngest sitting minister in Lebanon’s government.

“We can’t be involved where the Israelis are,” she said, referring to the East Med Gas Forum.

“But nothing prevents us from striking a tripartite agreement” with Cyprus and Egypt, she added.

Laury Haytayan, a Middle East oil and gas expert, says such a tripartite deal is one way for Lebanon to secure strategic regional alliances in the energy sector.

Lebanon may also have to strike a deal with Syria, with which it also has a maritime border dispute.

Two of the five blocks up for bidding until January 2020 border Syrian waters, which may complicate drilling.

“There is certainly room for (negotiations) with Syria, and we need to look into this very soon,” Boustani said.

“When the government agreed to open blocks 1 and 2 for bidding… this means that it knows a deal will be brokered” with Syria, she said.

But divisions among Lebanon’s political class may complicate such an agreement.

Prime Minister Saad Hariri and his Future Movement refuse a normalisation with Damascus.

Syrian regime backer Shiite movement Hezbollah and its Lebanese ally the Free Patriotic Movement, however, are in favour.

Haytayan said Russia may take the lead in negotiations because Moscow is interested in conducting exploration works on block 2.

“The Russians could mediate between Lebanon and Syria and together they will put in place a plan to share resources and outputs,” she said.

While many hurdles still stand in the way, Boustani says she has “big hopes for this industry”.

“The Lebanese will hopefully benefit from this sector soon.”

International action can scale up hydrogen to make it

a key part of a clean and secure energy future, according to new IEA report

KARUIZAWA, Japan – The world has an important opportunity to tap into hydrogen's vast potential to become a critical part of a more sustainable and secure energy future, the International Energy Agency said in a major new report today.

The in-depth study, which analyses hydrogen's current state of play and offers guidance on its future development, is being launched by Dr Fatih Birol, the IEA's Executive Director, alongside Mr Hiroshige Seko, Japan's Minister of Economy, Trade and Industry, on the occasion of the meeting of G20 energy and environment ministers in Karuizawa, Japan. The report – *The Future of Hydrogen: Seizing Today's Opportunities* – finds that clean hydrogen is currently receiving strong support from governments and businesses around the world, with the number of policies and projects expanding rapidly.

Hydrogen can help to tackle various critical energy challenges, including helping to store the variable output from renewables like solar PV and wind to better match demand. It offers ways to decarbonise a range of sectors – including long-haul transport, chemicals, and iron and steel – where it is proving difficult to meaningfully reduce emissions. It can also help to improve air quality and strengthen energy security.

A wide variety of fuels are able to produce hydrogen, including renewables, nuclear, natural gas, coal and oil. Hydrogen can be transported as a gas by pipelines or in liquid form by ships, much like liquefied natural gas (LNG). It can also be transformed into electricity and methane to power homes and feed industry, and into fuels for cars, trucks, ships and planes.

“Hydrogen is today enjoying unprecedented momentum, driven by governments that both import and export energy, as well as the renewables industry, electricity and gas utilities, automakers, oil and gas companies, major technology firms and big cities,” Dr Birol said. “The world should not miss this unique chance to make hydrogen an important part of our clean and secure energy future.”

To build on this momentum, the IEA report offers seven key recommendations to help governments, companies and other stakeholders to scale up hydrogen projects around the world. These include four areas where actions today can help to lay the foundations for the growth of a global clean hydrogen industry in the years ahead:

1. Making industrial ports the nerve centres for scaling up the use of clean hydrogen;
2. Building on existing infrastructure, such as natural gas pipelines;

3. Expanding the use of hydrogen in transport by using it to power cars, trucks and buses that run on key routes;
4. Launching the hydrogen trade's first international shipping routes.

The report notes that hydrogen still faces significant challenges. Producing hydrogen from low-carbon energy is costly at the moment, the development of hydrogen infrastructure is slow and holding back widespread adoption, and some regulations currently limit the development of a clean hydrogen industry.

Today, hydrogen is already being used on an industrial scale, but it is almost entirely supplied from natural gas and coal. Its production, mainly for the chemicals and refining industries, is responsible for 830 million tonnes of CO_2 emissions per year. That's the equivalent of the annual carbon emissions of the United Kingdom and Indonesia combined.

Reducing emissions from existing hydrogen production is a challenge but also represents an opportunity to increase the scale of clean hydrogen worldwide. One approach is to capture and store or utilise the CO_2 from hydrogen production from fossil fuels. There are currently several industrial facilities around the world that use this process, and more are in the pipeline, but a much greater number is required to make a significant impact.

Another approach is for industries to secure greater supplies of hydrogen from clean electricity. In the past two decades, more than 200 projects have started operation to convert electricity and water into hydrogen to reduce emissions – from transport, natural gas use and industrial sectors – or to support the integration of renewables into the energy system.

Expanding the use of clean hydrogen in other sectors – such as cars, trucks, steel and heating buildings – is another important challenge. There are currently around 11,200 hydrogen-powered cars on the road worldwide. Existing government targets call for that number to increase dramatically to 2.5 million by 2030.

Policy makers need to make sure market conditions are well adapted for reaching such ambitious goals. The recent successes of solar PV, wind, batteries and electric vehicles have shown that policy and technology innovation have the power to build global clean energy industries.

As the world’s leading energy authority covering all fuels and all technologies, the IEA is ideally placed to help to shape global policy on hydrogen.

“We are very proud to have been able to use the breadth and depth of the IEA’s energy expertise to carry out the rigorous analysis for this study in collaboration with governments, industry and academic researchers,” said Dr Birol. “We are grateful to Japan, through its presidency of the G20, for requesting that we carry out this report, which recommends immediate, pragmatic steps to foster hydrogen’s development.”

Beyond this report, the IEA will remain focused on hydrogen, further expanding our expertise in order to monitor progress and provide guidance on technologies, policies and market design. The IEA will continue to work closely with governments and all other stakeholders to support efforts to make the most out of hydrogen’s great potential.

Egypt’s electricity deal with

Cyprus, Greece brightens energy outlook

Egypt has signed an electricity interconnection framework agreement with Cyprus and Greece to establish a subsea cable called the EuroAfrica Interconnector linking the three countries.

The agreement was signed on May 22 by EuroAfrica Interconnector Limited CEO Nasos Ktorides and chairman of the Egyptian Electricity Transmission Company Sabah Mohamed Mashal.

According to the project developer, EuroAfrica Interconnector Limited, the 2,000-megawatt cable will be connected from Egypt to continental Europe via Cyprus, making Egypt an energy hub for Africa and link it to the European continent.

The cable will run from Egypt to Cyprus, from Cyprus to Crete and from Crete to Attica in Greece.

Ioannis Kasoulides, chairman of the Strategic Council of the EuroAfrica Interconnector, said in a statement following the signing ceremony, “With the historic signing agreement between EuroAfrica Interconnector and the Egyptian authorities, the first major electricity interconnection project linking Africa with Europe has been realized.”

“Cyprus now becomes a major hub for the transmission of electricity from Africa to Europe, and Egypt establishes itself as a regional energy hub for the transmission of electricity from Africa to the Arabian peninsula,” Kasoulides stated, adding that with the signing of this agreement, Egypt’s national grid will be connected to Europe’s electricity system.

“This historic project is of great importance to Egypt’s strategic plan for economic development and energy security, and the EuroAfrica Interconnector is connecting Egypt to the European electricity network through Cyprus. Egypt will be an important electricity and energy partner for the European Union,” Egyptian Minister of Electricity Mohamed Shaker told a press conference following the signing of the deal.

Energy experts have praised the signing of this agreement, which will serve Egypt’s strategy to turn into a major energy hub, but they also point to challenges ahead.

Tharwat Ragheb, professor of petroleum and energy engineering at the British University in Cairo, said that the agreement serves Egypt’s plan to become a hub for trade of energy in the Middle East.

“Egypt has also signed electricity interconnection deals with Saudi Arabia, Sudan, Libya and Jordan. Such access to power grid projects will make Egypt a pivotal energy carrier in the Middle East, from the east with Jordan and Saudi Arabia, from the west with Libya, from the south with Sudan, or from the north with Cyprus and Greece,” Ragheb told Al-Monitor.

However, he added that sea operations, as in the case of Cyprus and Greece, are more difficult. “Transporting electricity via sea will need a lot financial resources and high technology. It will also take some time," Ragheb said.

Hani Farouk, a member of the non-governmental organization of the Egyptian Experts Association for Development who specializes in planning and managing oil and gas projects, said that the Egyptian government needs to work on developing the electricity infrastructure in order to be qualified to connect to the European electricity system.

He added that with the signing of such electricity interconnection agreements with African, European and Asian countries, electricity will become a source of national income for Egypt.

"This is a real game-changer for Egypt, which has been relying on energy imports for years," Farouk told Al-Monitor.

Farouk said that Turkey has missed its chance to become an energy hub in the Middle East. "Turkey was trying to take Egypt's position, but it failed when Egypt signed an agreement with Cyprus last year to establish a direct sub-sea gas pipeline that would transport gas from Cyprus' Aphrodite gas field to Egyptian liquefaction stations for re-export to European countries. What Turkey is now doing is just nonsense threats over territorial waters," he added. "Now Egypt will become the top gas exporter to Europe."

Since 2014, Egypt has been ramping up its efforts to address energy shortages and become an oil and gas exporter once again for the first time since the January 25 Revolution.

In January this year, seven eastern Mediterranean countries met in Cairo and agreed to establish the Eastern Mediterranean Gas Forum based in the Egyptian capital. The meeting was attended by ministers of energy from Egypt, Jordan, Palestine, Israel, Cyprus, Greece and Italy, the Egyptian Oil Ministry said in a press release. Turkey was not represented at the meeting.

The establishment of the forum, which seeks to offer competitive prices and build a regional gas market, comes as Egypt seeks to transform itself into a regional energy hub.

“Deciding to have the headquarters of this forum in Cairo boosts Egypt’s plan to become an energy hub in the Middle East region and the top energy exporter to Europe,” Farouk said.

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