

# 30-year total investment in gas to reach \$10tn by 2050: GECF



Global natural gas production is forecast to grow by around 1,900bcm to reach more than 5,900bcm by 2050, Dohabased GECF said yesterday. Total investment in gas (including upstream and midstream activities) between 2020 and 2050 will reach a cumulative \$10tn, the Gas Exporting Countries Forum said, unveiling its 2020 edition of the 'Global Gas Outlook 2050' yesterday. The GECF said in Asia-Pacific, only China, Australia and India are expected to significantly expand production.

Total Asia-Pacific production growth to 2050 is forecast to be 224 bcm, it said. In North America, all three countries (the US, Canada and Mexico) are expected to increase their production. Total production is expected to grow by 560bcm to reach 1,670bcm by 2050. Gas production in Eurasia is expected to increase by almost 40%, amounting to just under 1,300bcm by 2050. According to the GECF, the Middle East gas production is

expected to rise to 1,150bcm by 2050.

Europe's downward trend is expected to continue with production falling from over 200bcm in 2019 to around 70bcm in 2050. Africa will grow from 250bcm (6.4% of global production) in 2019 to around 600bcm (just over 10% of global supply) by 2050. Natural gas production in Latin America is expected to increase by over 110bcm to reach 280bcm by 2050. The 'Global Gas Outlook 2050' revealed that energy transition is underway and natural gas together with renewables will gain in importance and will be the major contributors to incremental growth in global energy demand, together accounting for more than 90% of the additional 3,520mn tonnes oil equivalent (Mtoe) through to 2050.

The Forum said natural gas and renewables will make up 60% of the electricity supply, changing the global power generation mix by 2050. Natural gas, it said, will overtake coal in 2025 and become the largest global primary energy source by 2047, with oil plateauing around 2040 and then beginning its irreversible decline. According to the GECF, renewables' share in the global energy mix will rise from 2% in 2019 to 10% in 2050.

Natural gas demand will rise by 50%, reaching 5,920bcm in 2050, and will expand specifically across the Asia Pacific, North America and Middle Eastern markets, which together will provide more than 75% of additional gas volumes through to 2050. The Asia Pacific region, given its enormous potential, will become the largest gas consumer, doubling its consumption to 1,660bcm by 2050. The share of traded LNG will increase to approximately 48% of all traded gas in 2030 and 56% in 2050, respectively, the GECF said. LNG regasification from existing, under construction, potential, proposed, stalled and speculative projects is expected to be around 1,398mtpy.

It is projected that over the outlook period, 1,990bcm out of

around 5,920bcm global natural gas demand will be imported, including 1,105bcm from the GECF member countries. In his overview of the latest findings of the Outlook 2050, GECF secretary general Yury Sentyurin highlighted the vital role natural gas will play in the global energy mix by raising its share from currently 23% to 28% by 2050, thanks to its remarkable features of abundance, flexibility, affordability, and environmental efficiency. Sentyurin said, "The complexity of factors and the multiplicity of stakeholders within the energy sector results in myriad shifting strategies that are shaping the new architecture of the future.

Nevertheless, the mid- and longterm fundamental factors that favour natural gas remain unchanged. This plentiful, adaptable and, crucially, clean source of energy will expand across Asia Pacific, North American and Middle Eastern markets." The GECF Global Gas Outlook 2050 was launched at an online event attended by energy ministers and senior representatives from the Forum's member countries together with a bevy of dignitaries and gas industry stakeholders yesterday. Its detailed quantitative assessments account for national energy strategies, environmental and climate policies, and investments and business decisions. The forecast remains the flagship publication of the association of 19 member countries, which together represent 70% of the world's proven gas reserves, 44% of its marketed production, 52% of pipeline, and 51% of LNG exports in the world.

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## النفط والغاز في شرق المتوسط

# ثروة للتقدم والرخاء | فيديو



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**Qatar on track to be world's largest LNG producer: Rystad Energy**



Qatar's move to sanction the \$28.7bn North Field Expansion project puts the country on track to return as the world's largest LNG producer by 2030, the Oslo, Norway-based Rystad Energy has said in a report.

Qatar's liquefaction capacity will rise to 110mn tonnes per year (tpy), or 18% of the global total, which is for now estimated at 600mn tpy at the end of the decade. Still, more projects are expected to be sanctioned as LNG demand will grow faster than supply, it said.

The North Field Expansion (NFE) project is also making the Middle East, the world's top region for oil and gas project sanctioning in 2021, Rystad Energy said.

The independent energy research and business intelligence firm expects rising oil prices to trigger sanctioning of global projects worth about \$100bn this year, of which the Middle East is set to contribute almost 40%, or \$40bn.

More than 26 Middle Eastern projects worth a total of about \$50bn have been delayed over the past year, with NFE making up the lion's share as it was pushed to 2021. As this year got under way, the region had projects worth \$98bn, due for sanctioning from 2021 to 2023.

Among global LNG producers, Australia currently has the largest operating capacity of 88mn tpy, but will be surpassed

by Qatar and the US in the coming decade as new liquefaction capacity is commissioned.

The only Australian project Rystad Energy expects to reach a final investment decision in 2021 is Woodside's 4.5mn tpy Pluto Train 2 project, which would be developed together with the Scarborough upstream asset.

The US currently has 107mn tpy of sanctioned LNG capacity, including 36mn tpy under construction. Port Arthur LNG, Driftwood LNG, Plaquemines LNG and Freeport T4 have all signed long-term contracts or secured equity from LNG buyers, but would still need new deals to secure financing and move forward.

According to Rystad Energy's base case, global LNG demand will reach about 580mn tonnes by 2030, leaving significant room for bringing new LNG projects forward.

"We forecast that 104mn tpy of new LNG supply must be sanctioned in the coming five years to meet the gap between actual supply and demand in 2030," says Sindre Knutsson, vice president at Rystad Energy's gas markets team.

To tap the supply capacity deficit, there are almost 1,000mn tpy of new proposed capacity that will compete to attract buyers and investors to secure financing in the years ahead.

After a "poor sanctioning year" in 2020, Rystad Energy believes that the optimism is back in the market and that more final investment decisions for LNG projects will follow after Qatar's NFE.

"Qatar, however, is also likely to add extra skin in the game, as it aims to increase its LNG output capacity to 126mn tpy from the current 77mn tpy through two expansion phases of the North Field. The recently sanctioned first phase includes four new liquefaction trains to raise capacity to 110mn tpy, while the second phase will include another two new trains currently in the front-end engineering design stage," the report said.

Rystad Energy estimates the two phases collectively to reach the capacity targets by 2028 or 2029, if the second phase also gets the go-ahead.



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# **Carbon-Neutral Or Green LNG: A Pathway Towards Energy Transition**



**LNG producers have started to look for ways to minimise or counterbalance their carbon footprints, says Dr Hussein Moghaddam, Senior Energy Forecast Analyst, Energy Economics and Forecasting Department**

According to the latest, 2020 edition of the GECF Global Gas Outlook 2050, the demand for natural gas is expected to rise by 50% from 3,950 billion cubic metres (bcm) in 2019 to 5,920 bcm in 2050, as gas remains the cleanest-burning hydrocarbon. In spite of that, meeting global targets for climate change mitigation is one of the biggest challenges. Significant

emissions are released through the combustion of gas to drive the liquefaction process, while any carbon dioxide (CO<sup>2</sup>) detached before entering the plant is frequently emitted into the atmosphere.

Subsequently, investors, regulators, and customers exert mounting pressure on the gas industry, as it needs to do more to accomplish climate objectives and focus on reducing emissions.

More than 120 countries have already developed a climate risk strategy that sets target to reduce greenhouse gas (GHG) emissions to net-zero by 2050. As natural gas has a central role to play in mitigating carbon emissions, LNG producers have started to look for ways to minimise or counterbalance their carbon footprints, thus ongoing LNG decarbonisation efforts are likely to expedite. Accordingly, top LNG producers, traders, and consumers have indicated their plans in order to decarbonise the LNG supply chain. This is being done in two ways: by offsetting emissions from individual cargoes retrospectively, as well as by building low-emission liquefaction terminals. As a result, the “Green LNG” term has appeared as a new product within the LNG industry.

The carbon-neutral or Green LNG market is an emerging prospect whereby “Green” indicates either the reduction of GHG, or the offset of GHG emissions, linked to some, or all elements of the LNG value chain – from production of upstream gas and pipeline transportation, to liquefaction, transportation, regasification, and downstream utilisation of natural gas.

Companies in the LNG value-chain can diminish GHG emissions in numerous ways. For instance, by using biogas as feedstock; by decreasing emissions from upstream, pipeline, and liquefaction facilities; by applying renewable energy to power their liquefaction plants; respectively, by using carbon capture, and storage (CCS), or carbon capture, utilisation and storage



(CCUS) technologies by reinjection of CO<sup>2</sup> into the subsurface after it had been detained during the processing of the feed gas before liquefaction.

Therefore, it should be taken into account that carbon-neutral does not mean that the LNG cargo generates zero emissions, rather that LNG sellers can counterbalance their GHG emissions by obtaining offsets to compensate for all or part of their GHG emissions or the utilisation of carbon credits, which reinforce reforestation, afforestation or other green projects.

It is worth noting that last year the leaders of the G20 endorsed the concept of the circular carbon economy (CCE) and the GECF is the part of this process. The CCE aims to include a wide range of technologies such as CCS/CCUS as a way to promote economic growth and to manage emissions in all sectors.

In contrast, Qatar Petroleum (QP) is the company that applies a combination of strategies to reduce its emissions. Its future LNG production will be low-carbon based, as the company is building a CCS facility alongside its 126 mtpa liquefaction capacity expansion by 2027.

As part of its new sustainability strategy, QP has announced that its aim is to reduce the emissions intensity of its LNG facilities by 25% by 2030. The capture and storage of CO<sup>2</sup> from its LNG facilities of about 7 mtpa by 2027 is another goal. Furthermore, QP aims to drop emissions at its upstream facilities by at least 15%, as well as cut flaring intensity by over 75% by the end of this decade. Additionally, by 2030, QP is attempting to abolish routine flaring, and by 2025, the company would like to minimise fugitive methane emissions along the gas value-chain by establishing a methane intensity target of 0.2% over all of its facilities.

In certain supply contracts of the company, environmental

considerations are incorporated as well. In November 2020, QP signed the first long-term deal with “specific environmental criteria and requirements”, which was designed to minimise the carbon footprint of the LNG supplies with Singapore’s Pavilion Energy, and to provide 1.8 mtpa of LNG over a 10-year period.

In order to fulfil the objectives of decreasing GHG emissions, CCS also helped the case in Australia. Chevron is the operator of the 15.6 mtpa Gorgon LNG offshore Western Australia and has injected more than 4 million tonnes of CO<sub>2</sub> in the CCS facility since its commissioning in August 2019.

Meanwhile, NOVATEK has embraced a long-term methane emissions reduction target by 2030 in Russia, mainly to diminish methane emissions per unit of production by 4% in the production, processing and LNG segments. Moreover, the company aims to decrease GHG emissions per tonne of LNG produced by 5% [5]. In this regard, NOVATEK and Baker Hughes, which provides engineering and turbomachinery at Yamal LNG, signed an agreement to introduce hydrogen blends rather than solely running methane from feed gas into the main process for natural gas liquefaction to reduce CO<sub>2</sub> emissions from NOVATEK’s LNG facilities.

Bio-LNG will have a significant role in the coming years to form the heavy road and water transport in the Netherlands. The construction of the first Dutch bio-LNG installation was launched in Amsterdam last November. Renewi (the waste management company), the Nordsol (for processes the biogas into bio-LNG) and Shell (to sell this bio-LNG at its LNG filling stations) have developed this project. Biogas is made up of roughly 60% methane and 40% CO<sub>2</sub>. An additional CO<sub>2</sub> cutback takes place due to the recycling of the CO<sub>2</sub> by-product in the market, which results in a 100% CO<sub>2</sub> neutral fuel [7].

Inpex, which is Japan’s biggest oil and gas producer, has recently disclosed its strategy to become a CO<sub>2</sub> net-zero company by 2050 by developing its renewable and hydrogen

energy together with the utilisation of carbon capture technologies. Japan has also stated in October 2020 that the country would become carbon-neutral by 2050.

Two major LNG importer regions, namely Asia-Pacific and Europe, have already set policies regarding long-term decarbonisation targets. It is worth noting that most of the carbon-neutral LNG cargoes have been supplied by companies are in Asia to a certain extent, where carbon policies and investor pressure are fairly fragile.

According to the 2020 Edition of the GECF Global Gas Outlook 2050, it is forecasted that LNG imports to Asia will increase to about 800 bcm (585 mt) by 2050, and with 71% of global LNG imports, the region is set to be the driving engine for global LNG demand growth. As concerns with air quality rise in numerous Asian countries, the most realistic solution to attain a decarbonised society in the future by minimising the level of CO<sub>2</sub> on a global scale, is the combination of natural gas and renewable energy. Thus, emissions and cleaner-burning fuels are going to be the centre of attention.

Europe could be the predecessor for carbon-neutral LNG in the long-term, by sticking to its new methane strategy, which was revealed by the European Commission (EC), and in accordance with their 2050 carbon-neutral goal. Importantly, the EC suggested LNG producers to engage with their international partners to explore possible standards, targets, or incentives for energy supplies to the EU.

### **Which part of the LNG value-chain should take responsibility?**

An LNG seller will probably need to diminish and offset GHGs, which emphasises the need for robust offset markets in order to be completely carbon-neutral through the entire LNG value-chain.

Accordingly, this highlights challenges for legacy LNG projects with limited means to decrease carbon, making them

dependant on expensive market mechanisms. LNG producers have to keep the balance between the competitive fuel pricing and the expensive emissions reduction initiatives. Therefore, the question of who pays the additional costs to produce Green LNG is yet to be decided.

As noted, the balance of carbon emission is feasible for any LNG facility and can lead to carbon-neutral LNG cargoes. Although, this is probably not a sustainable long-term process and does not directly cope with the project's emissions, it is a good transformation for general LNG decarbonisation.

However, the GECF proposes that both sellers and buyers have to contribute to achieving emission targets. The discussions with respect to these issues should involve all LNG industry players, such as sellers, buyers, traders and policymakers, respectively. A more focused perspective that targets minimising emissions in upstream and liquefaction might be more feasible for LNG producers. This will also associate with the already ongoing efforts from them, as they have to control their carbon footprints under more pressure from the public and investors.

In conclusion, as LNG demand keeps expanding, the demand for Green LNG will grow as well. Green LNG can help ensure that natural gas preserves its role as a crucial part of the energy mix, supporting climate goals over the energy transition period. As stated in the 2019 Malabo Declaration, at the 5<sup>th</sup> GECF Summit of Heads of State and Government in Equatorial Guinea [10], the GECF Member Countries, reiterate the strategic role of the development, deployment and transfer of advanced technologies for more effective production, and the utilisation of natural gas to enhance its economic and environmental benefits.

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# QP sees LNG bunkering a promising solution for shipping industry



Qatar Petroleum is actively pursuing to replace its existing bunker fuel for ships with LNG in a phased manner, which will significantly reduce QP's total shipping emissions in the LNG value chain by around 28%. Once the fleet is converted to LNG, the total CO<sub>2</sub> reduction through this initiative will amount to approximately 1.9mn tonnes of CO<sub>2</sub> equivalent per year, QP said in its Sustainability Report.

With a growing population, the demand for transport is anticipated to expand. More emissions also cause poor air quality, causing adverse effects on the environment and human health.

Meeting the increasing demand for transport while reducing emissions will only be achieved with a variety of solutions and technologies, such as lower-emissions liquid fuels,

biofuels, and natural gas.

"More than ever, we are committed to decarbonise the transport sector by shipping LNG to destinations in a cost-effective, efficient and environmentally friendly way," QP said.

In 2019, QP and Shell entered into an agreement to establish an LNG bunkering venture. The creation of a joint venture company, owned equally by both parties, demonstrates QP's firm commitment to curbing emissions from the transport segment.

On the role of natural gas in power generation, the report said the electricity share of total energy demand is around 19% but is responsible for 40% of the overall energy sector's GHG emissions. When generated from lower-carbon energy sources, increased use of electricity will support emission reduction in the power sector, as well as in end-use industries through indirect emissions.

In addition, the combustion of fossil fuels and coal releases several pollutants that negatively affect air quality. QP monitors pollutants at affiliated power plants via a continuous emissions monitoring system (CEMS).

As of 2019, natural gas remains the only fuel to be burnt in gas turbines in Qatar, where pollutant levels are significantly lower than from oil or coal, making natural gas the key to maintaining good air quality.

"We strive to further enhance the environmental benefits of gas-fired plants, eg through lowering NOx emission," the report noted.

"We consider the industrial sector to be crucial for providing vital products for daily lives, from aluminium, steel, and cement to food packaging, paints, and others. However, metals, cement, chemicals and transport industries are also significant consumers of energy and hence emitters of GHG emissions.

"In 2019, the industrial sector accounted for 52% of domestic gas consumption and 19% of total CO2 emissions in Qatar (metals and petrochemicals only). Reducing energy demand and emissions from the industrial sector over the long term, without impacting economic and social development goals, will

require effective implementation of energy efficiency strategies, switching to lower carbon fuels and raw materials, and leveraging the best available technologies for GHG reduction.

“Our use of cleaner gas in these industries offers an unrivalled advantage to operate at significantly lower GHG emission and pollutant levels compared to those in coal or oil-based industries. Besides, the use of natural gas in industry has other significant benefits: gas almost completely combusts, while coal produces large volumes of ash and slag, which require costly handling and disposal and gas boilers supplied by pipelines do not require on-site fuel storage, loading, or waste disposal,” QP said.

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## **GECF commences educational campaign on benefits of natural gas**





The Gas Exporting Countries Forum (GECF) has activated a new communication campaign on its social media channels that raises awareness about the benefits of natural gas as well as simplifies the facts of an industry often perceived as data heavy.

Being run on GECF's Twitter and LinkedIn channels, the 'Did You Know...?' series of posts provide easy-to-understand facts, figures, and data on an energy source that likely powers the batteries of the phones users will read the information on. It also calls to attention any misconception around this important source of energy found in abundance in pockets around the world.

"In the midst of an 'infodemic' it is increasingly hard to differentiate facts from the noise. Further, due to the complexity of energy systems, end-users rarely get to glimpse at the processes that eventually power most aspects of their daily lives, such as electricity at home, prospects for front-running technologies, fuelling of vehicles and so on," said GECF secretary general Yury Sentyurin.

Scientifically-grounded data and insights are championed at the GECF, which was established to bring a better understanding about technology that underpins the full spectrum of energy areas, to promote natural gas as the fuel

of choice, as well as to promote cooperation at all levels of global energy system.

The forum recently entered a landmark MoU with Unesco to further enhance its role in environmental protection and to cultivate a “culture of energy responsible behaviour”.

“Our campaign’s goal is to de-mystify the world of energy and, really, democratise it for every one’s understanding. Today, as we live in times of rising appetite for energy, ever-increasing struggle for climate protection and better future for all, social media has become a tool in global geopolitics. The ‘Did You Know...?’ campaign aims to empower the community around the world with a new appreciation and understanding about an element that holds such a powerful impact on people’s quality of life,” the forum’s representative noted.

According to the latest available projections, quantified through the use of unique and highly granular GECF Global Gas Model, fossil fuels will maintain a leading role in the global energy mix, accounting for at least 71% in 2050 (against 81% in 2019) of the world’s energy need.

Meanwhile, natural gas will be the only hydrocarbon resource to increase its share from 23% today to 28% in 2050.

“Natural gas is often lumped together with other traditional fuels due to its origins as a hydrocarbon fuel without recognising the attributes that distinguish it for its low-emissions and dynamic flexibility. As a platform dedicated to promoting the use of this cleanest of the fossil fuels, we felt it is important to broaden people’s understanding of its economic and environmental advantages,” SENTRYURIN emphasised. To follow the ‘Did You Know...?’ campaign, visit the GECF website [www.gecf.org](http://www.gecf.org), Twitter @GECF\_News, and GECF LinkedIn page.

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**Qatar's growth helps maintain  
GECF's status as largest  
coalition of global LNG  
supplier: Sentyurin**



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**GECF amplifies role of  
natural gas at OLADE  
Ministerial Meeting**



Upon an invitation of the Latin American Energy Organization (OLADE), the Gas Exporting Countries Forum (GECF) participated in its 50th jubilee Meeting of Ministers, dedicated to the topic “The energy sector during the crisis and its role in a post-pandemic economic recovery” and held on 19 November via videoconference.

The OLADE governing body has proved to be the foremost gathering of the Energy Administration Heads in the Latin American and Caribbean region providing an umbrella access to membership of 27 countries and engagement of peer international organisations, such as GECF, IEA, IEF, IRENA, and Inter-American Development Bank.

Assuming the office from HE Antonio Almonte, the Dominican Republic’s Energy and Mines Minister, the Meeting’s President HE Senator the Honourable Franklin Khan, Minister of Energy and Energy Industries of Trinidad and Tobago shared his vision of the energy sector as “the engine of the post-pandemic economic recovery” and stated that “energy industries have always played a fundamental role in providing society with the conveniences of modern living”.

Addressing the policymakers, the GECF Secretary General Yury Sentyurin, linked to the significant deterioration in OLADE

countries' economies due to COVID-19 pandemic and noted that "the GECF estimates that despite the challenging environment, the region's primary energy demand will rise by 60% by 2050. Natural gas will make the most prominent contribution to this growth, as an inevitable component in building more sustainable energy systems with prominent emissions mitigation potential through larger deployment of decarbonisation options, including carbon capture, utilisation and storage (CCUS) and hydrogen developments."

The GECF Secretary General commended the decisive actions taken by OLADE countries to facilitate energy transition and stimulate energy systems' decarbonisation. In this regard, he recalled the recently taken final investment decision to construct Energia Costa Azul LNG project in Baja California, Mexico – the first ever LNG export facility on the Pacific Coast of North America.

Meanwhile, the UNFCCC COP25 chair Chile shared more details on its pledge to phase out coal by 2040 and to achieve carbon neutrality by 2050. The Chilean Energy Undersecretary Francisco Javier López particularly mentioned hydrogen and noted that its production was "a high priority area of work to further energy sector developments".

Speaking about Argentinian energy mix, HE Dr Javier Papa, Undersecretary of Energy Planning at the Energy Secretariat described natural gas as an integral element to succeed energy transformation. Argentina has recently announced its plans to liberalise its gas market by offering repatriation for gas investment.

"These are encouraging news in favour of natural gas and collectively they sound even more impressive" – continued GECF authority, citing the Forum's Global Gas Outlook 2050, which forecasts the share of gas in the Latin American and Caribbean regional energy mix to grow from currently 24% to 33% by 2050. "Natural gas will be the harbinger of a sustainable and

environmentally-friendly prosperous future for Latin America” – HE Yury Sentyurin stated.

Reflecting on the challenges posed by the year 2020, the GECF Secretary General highlighted the Forum’s Member Countries’ outstanding discipline and resilience in the continued fulfilment of their obligations towards all contracting parties. He also recalled his counterpart OLADE Executive Secretary Alfronso Blanco saying that “the strengthened collaboration can support the achievement of deeper energy transitions in the region.”

“The GECF has been continuously supporting its partner organisation and is eagerly looking forward to making even greater tribute in the OLADE-GECF activities, as well as its Member Countries’ practices through joint studies and outreach activities, exchange of unique expertise, comprehensive data sets, and analytics and multifaceted experience” – HE Secretary General Sentyurin reiterated. He also added that the GECF is ready to assist those on board to emerge stronger, wiser, technologically guided, data driven, and ever more agile, when entering the post COVID-9 world of growth and prosperity.

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## **Lebanon sets starting point for sea border negotiations with Israel**





BEIRUT (Reuters) – President Michel Aoun on Thursday specified Lebanon's starting point for demarcating its sea border with Israel under U.S.-mediated talks, in the first public confirmation of a stance sources say increases the size of the disputed area.

Israel and Lebanon launched the negotiations last month with delegations from the long-time foes convening at a U.N. base to try to agree on the border that has held up hydrocarbon exploration in the potentially gas-rich area.

A presidency statement said Aoun instructed the Lebanese team that the demarcation line should start from the land point of Ras Naqoura as defined under a 1923 agreement and extend seaward in a trajectory that a security source said extends the disputed area to some 2,300 square km (888 sq miles) from around 860 sq km.

Israel's energy minister, overseeing the talks with Lebanon, said Lebanon had now changed its position seven times and was contradicting its own assertions.



“Whoever wants prosperity in our region and seeks to safely develop natural resources must adhere to the principle of stability and settle the dispute along the lines that were submitted by Israel and Lebanon at the United Nations,” Yuval Steinitz said.

Any deviation, Steinitz said, would lead to a “dead end”.

Last month sources said the two sides presented contrasting maps for proposed borders. They said the Lebanese proposal extended farther south than the border Lebanon had years before presented to the United Nations and that of the Israeli team pushed the boundary farther north than Israel’s original position.

The talks, the culmination of three years of diplomacy by Washington, are due to resume in December.

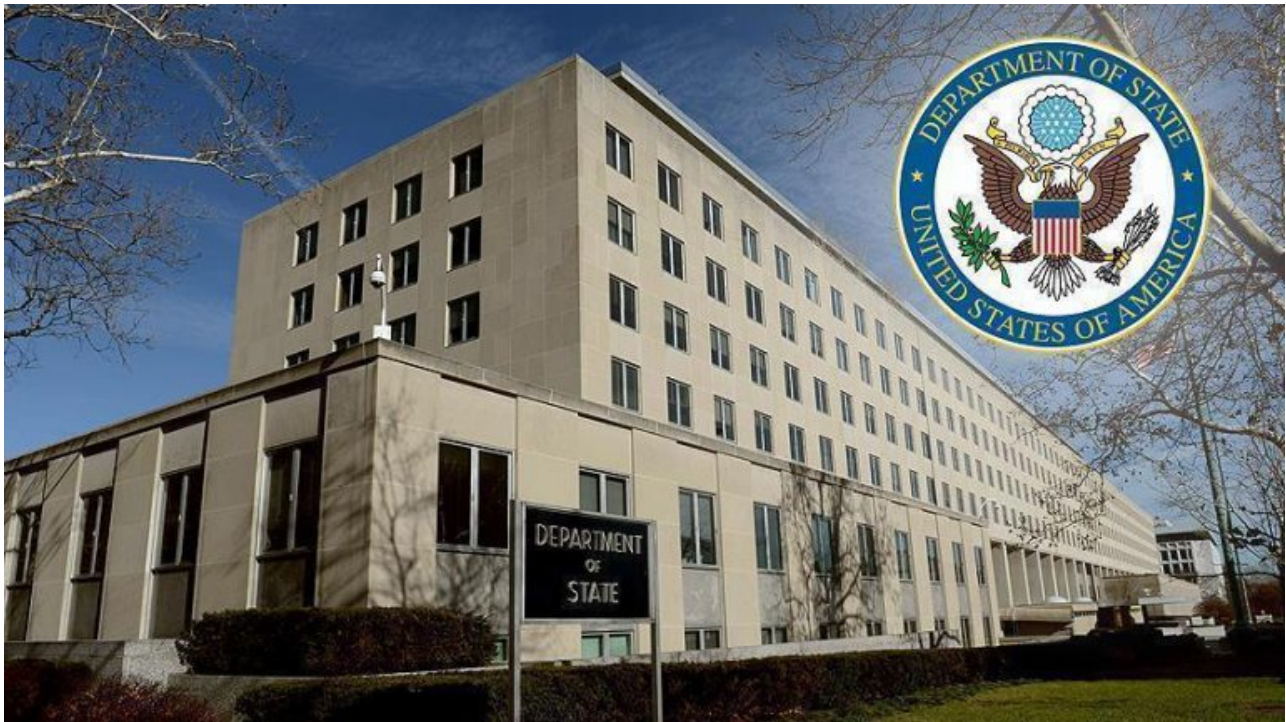
Israel pumps gas from huge offshore fields but Lebanon, which has yet to find commercial gas reserves in its own waters, is desperate for cash from foreign donors as it faces the worst economic crisis since its 1975-1990 civil war.

Additional reporting by Ari Rabinovitch in Jerusalem; Writing by Ghaida Ghanous; Editing by Janet Lawrence

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## **Athens responds to US State Department’s claim that Greek air space is only 6 nautical**

# miles



Regarding the report by the US State Department, which was forwarded to the US Congress on March 18 and in the framework of the provisions of the “Eastern Mediterranean Security and Energy Partnership Act,” diplomatic sources pointed out that the borders of Greece’s territorial waters, as well as the maritime borders between Greece and Turkey, have been clearly defined for years on the basis of international law and are not in any dispute.

In particular, they stated in response to the State Department that regarding the Southeastern Aegean and the Eastern Mediterranean, the maritime borders have been defined by the Italy-Turkey Agreement signed in Ankara on 4 January 1932, as well as the minutes which was signed in Ankara on December 28, 1932.

Greece, as the successor state under the Treaty of Paris of 1947, gained sovereignty over the Dodecanese without any change in the maritime borders, as agreed between Italy and Turkey.

Regarding the sea borders in Thrace (up to the point of a distance of three nautical miles from the Evros Delta), they emphasise that these were defined by the Treaty of Lausanne of 1923 and the Athens Protocol of 1926.

Finally, regarding the sea borders between the above two areas (from Thrace to Dodecanese), where the territorial waters of Greece and Turkey intersect, they pointed out that the sea borders follow the middle line between the Greek islands and islets and the opposite Turkish coasts.

The same diplomatic sources noted that Greece's external borders, including its territorial waters, are at the same time the external borders of the European Union.

The recently released State Department report states that Greece claims an airspace that extends up to 10 nautical miles and a territorial sea of up to 6 nautical miles, but that "under international law, a country's airspace coincides with its territorial sea."

"The US thus recognizes an airspace up to 6 nautical miles consistent with territorial sea. Greece and the US do not share a view on the extent of Greece's airspace," the report said.

The State Department report adds that although Athens currently claims up to a 6-nautical-mile territorial sea in the Aegean, "Greece and its neighbors have not agreed on boundary delimitation in those areas where their lawful maritime entitlements overlap."

"Lack of such delimitation means there is no clarity on the extent of Greece's territorial sea and corresponding airspace in these areas rendering any assessment of total violations not feasible," the report said.

The State Department report said Washington encourages Greece and Turkey "to resolve outstanding bilateral maritime boundary

issues peacefully and in accordance with international law.”