

# **GECF sees oil price to range from \$70 to \$95 in long-term**

GULF TIMES – Doha

Doha-based Gas Exporting Countries Forum (GECF) expects long-term global oil price to range from \$70 to \$95 a barrel, while short-term prices are expected to remain “weak”.

“Our projection of 2040 oil prices show that over the medium-to-long term, prices will likely range from \$70 to \$95 per barrel in constant (2015) dollars,” GECF said in its maiden report ‘Global Gas Outlook’. These price levels will support the most expensive sources of production such as Canadian oil sands, Venezuelan heavy crude and off shore deep-water African projects, it said.

The expected oil price range (\$70 to \$95) would mean that an expected pick-up in the global economy would sustain the new levels. Global gross domestic product growth is expected to be stronger between 2015 and 2020, at 3.1% per year, but would start to slow down to 2.9% after 2020 as non-OECD (Organisation for Economic Cooperation and Development) Asia, including China and some other major emerging but maturing economies, slow to a more sustainable long-term rate.

In the medium term, the cost of producing the most expensive (marginal) barrel is an important component for oil price projection although the cost of production varies significantly depending on the geology of the production basin, the technology employed and the fiscal terms applied to producers by host governments. GECF said oil price forecasts are predicated on the same determining factor that shape today’s oil prices including economic growth, the interplay between global oil supply and demand, industry production costs, geopolitical events and the behaviour of the Organisation of the Petroleum Exporting Countries (Opec). In the short term,

GECF said it expects oil prices to remain “weak” due to a more “pessimistic” economic perspective than previously anticipated and to the absence of a strong decline in non-Opec output.

Forecasting that oil demand growth to grow moderately, it said global demand for oil and other liquids would increase to over 98mn barrels per day (mbpd) in 2020 from 93mbpd. “Oil demand continue to rise until it peaks at 106.5mbpd in 2035 and then stabilises around 106mbpd through 2040,” it said, adding the largest decline in demand for oil and other liquids is expected to occur in the power sector, where it faces strong competition from other fuels including natural gas, renewables and nuclear.

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## **Qatar’s Energy Acumen Spells Prosperity at Home and Stable Prices Around the World**



by Roudi Baroudi

Qatar’s growing stature on the international stage did not come about by accident, but rather as the product of a concerted effort to acquire a larger and more constructive role in the region and around the world. This greater capacity

to exert positive influences has been made possible by the country's enormous gas reserves, but even these would not have sufficed without both effective management of those resources and many years of astute diplomacy.

There were never any guarantees that the story would have a happy ending. The first oil well, "Dukhan 1," was drilled in 1939, but Qatar did not gain full independence from Britain until 1971, and its flagship oil company, Qatar Petroleum (QP), was not formed until 1974. Like many resource-rich countries emerging from the era of colonialism, Qatar lacked many of the institutions and mechanisms required for effective governance, so for many years it did not derive maximum benefit from the production and export of crude.

Near the end of the 20th century, however, the country and its territorial waters were found to be sitting atop huge deposits of natural gas in what would become known as the North Field. The colossal North Field covers an area of some 6,000 square kilometres, making it the single largest non-associated gas reservoir on the planet. Coupled with a new leadership that had the vision to make far-seeing investments, this gas has offered Qatar an opportunity to more than make up for lost time. As of 2014, the country's gas reserves were estimated at more than 25 trillion cubic metres, surpassed only by Russia and Iran and equivalent to a whopping 14 percent of the world total.

It was foresight, though, not just raw reserves, that made Qatar what it is today. Not content with the country being "just" another major producer of fossil fuels, the ruling family threw its weight behind financial investments and technological choices that would make Qatar a global leader in several facets of the gas business. Accordingly, billions of dollars were spent to expand production, acquire the world's most advanced liquefied natural gas (LNG) trains, and build a fleet of ultra-modern LNG carriers to serve customers around the globe. As a result, Qatar now leads all nations in exports

of LNG. In addition, the country has been the foremost partner in the pioneering of research, development and commercialisation of gas-to-liquids (GTL) technologies, including a jet-fuel blend that reduces both emissions and operating costs.

Even more than natural resources, then, it is sound judgement that has transformed Qatar into the world's wealthiest nation-state on a per capita basis, winning it a choice seat at the table when major powers discuss the most pressing matter of the day. It has used this influence to promote both economic and political stability, striving to forge bilateral and multilateral relationships with which to address shared concerns like war/occupation, poverty, and the environment.

This level of economic and diplomatic ambition requires across-the-board engagement and, when appropriate, strong leadership. Therefore, in addition to having joined the Organisation of Petroleum Exporting Countries just a year after OPEC's founding in 1960, Qatar also plays a central role in the Gas Exporting Countries Forum (GECF) set up in 2001, having hosted the GECF's Executive Office and Secretariat since 2009.

#### GTL capital of the world

The GECF was established to promote the interests of the world's leading gas producers by holding regular meetings to find common ground and develop solutions for shared challenges, but its selection of Doha to serve as headquarters reflected a different priority, that of improving ties and coordination with consumer nations. As a country that maintains warm relations with governments on both sides of several diplomatic divides, Qatar and its robust finances have been instrumental in initiating and sustaining useful discussions of issues affecting the international gas market, providing a platform of stability that has allowed the development of a healthy and prosperous energy market that benefits all stakeholders.

Despite the volatility of the hydrocarbon markets and their relationship to international politics, Doha, in particular with its energy policy, has been a focal point of cooperation among producers and consumers with a view toward adopting new standards, regularizing markets and prices, and ensuring both stability and sustainability of supply so that demand is met in a mutually beneficial manner. The resulting safe and sustainable energy flows, with fewer interruptions due to wars or other forms of instability, yields a variety of certainties that serve the interests of all countries. So it was that in less than a decade, a tiny country of just 2 million inhabitants became the most important force for maintaining global security and price stability for all forms of natural gas. Given the ever-increasing importance of natural gas in the global energy mix, this also means that Qatar contributes mightily to economic growth and flourishing energy initiatives in virtually all corners of the world.

In addition, Qatar has employed skilful political leadership in urging its fellow gas producers to think long and hard about the difference between oil and gas prices. Oil remains the benchmark, as all other energy prices usually rise and fall under its influence. Qatar continues to study the causes that have led to gaps in the price relationship between oil and gas, and how collective action can both restore the link and achieve parity between the two. Given the many environmental and other advantages that gas offers over traditional energy sources – including being non-toxic, near-perfect combustion, no soil contamination, and an enviable safety record – greater parity would seem to be in the interests of all concerned, including the planet itself.

The GTL venture is a prime example of innovation designed to ensure that more and more applications can use cheaper, cleaner-burning natural gas. Qatar is carving out yet another niche for itself, this time as “GTL capital of the world.” Only two other countries – South Africa and Malaysia – possess similar facilities, and Qatar’s access to affordable feedstock will give it significant advantages for years to come. By

2016, national production of GTL will amount to 174,000 barrels a day, radically increasing supplies available to help airlines, local public transport and utilities to reduce their carbon footprints.

The natural gas industry is growing and globalizing as demand expands and new technologies like GTL enable and inspire creative new ways to customize compatible products and services. Simultaneously, Qatar's backing of a positive global energy dialogue,

reliable production and massive investment in today's fuel of choice are bringing more stability and security of supply to regional and global markets because in the gas industry, volumes and prices are defined primarily by long-term contracts, consumers and supplies. In 2006, Qatar and two of its neighbors, Oman and the UAE, completed the first cross-border regional gas pipeline, linking the North Field to customers in Abu Dhabi, Dubai and Oman. This tri-nation sub-sea gas pipeline project was an unprecedented achievement and so set a fitting example of strategic inter-energy connecting grids.

The impacts go far beyond the energy business. For example, Qatar has worked very successfully to foster better environments for strategic partnerships, and to achieve greater energy security while improving climate protection in the discovery, development and production of cleaner and more efficient fuels. This combination imparts enormous value to society by inspiring confidence in the strength and durability of the national economy and the policies pursued by the government, both at home and abroad. Better fuels mean higher standards of living, greater social stability, and a cleaner environment. The revenues and cost savings can be a game-changer in reducing poverty, and the Qatari government has worked to ensure that the gas industry operates with due regard for social, moral and environmental impacts. On this last score, achieving a truly open global market for gas is perhaps the single greatest step government and industry can take to

achieve genuinely significant levels of de-carbonization in the coming years.

Even as I write, the world is rapidly moving toward commercialization of energy technologies independent of carbon, such as photovoltaics and fuel cells. These will take time to mature, particularly in terms of applications requiring large mobile energy supplies, so gas will be the natural bridge that joins the carbon and post-carbon eras.

For now, the oil and gas industry continues to decide the future of our world economy, and energy and capital complement one other. Therefore, the emerging primacy of gas will only solidify Qatar's position as a global energy titan, and continue to fuel its diversification as an emerging business and logistics hub in today's highly competitive world. And if recent history is any guide, the same resources will help fund investments that make the country a player in tomorrow's world as well.

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## قدّم إلى سليمان دراسته الأخيرة حول "الطاقة في المنطقة" بـارودي: "إعلان بعبدا اقتصادي" يجذّب الإنهيار



المركزية - تسلّم الرئيس العماد ميشال سليمان من الخبير الدولي في

قطاع الطاقة رودي بارودي دراسته الأخيرة لهذا العام حول "وضع الطاقة في المنطقة" بعد الدراسة السابقة التي أعدّها في هذا الشأن عام 2008، وذلك خلال زيارة قام بها بارودي للرئيس سليمان في منزله في اليرزة قبل ظهر اليوم.

وتركز البحث في خلال اللقاء، على أهمية الإستكشاف والتنقيب عن الغاز والنفط في لبنان وخصوصاً البدء بالمسح البري بعد مدة زمنية فاقت الـ 60 عاماً منذ آخر عملية استكشاف، وضرورة عدم تضييع الفرص في هذا المجال للإفادة من هذه الثروة إلى أقصى حدّ.

وكانت مناسبة شكر فيها بارودي للرئيس سليمان محافظته على الثروة النفطية اللبنانية طوال عهده في سدة الرئاسة، ومتابعته الحثيثة لتطورات هذا الملف عبر مواكبة الإتصالات الجارية مع الدول المعنية بالتنقيب في المياه الإقليمية، سعياً إلى حفظ حقوق لبنان في حصته النفطية.

وشدد بارودي في خلال اللقاء، على "أهمية تعزيز العلاقات بين لبنان وقبرص في ملف النفط والغاز، وتنمية أواصر التعاون خصوصاً في مجال الغاز السائل والتصدير إلى أسواق أوروبا الأقرب على الإطلاق لتسويق الغاز"، مشيداً بـ "النشاطات الجبارة التي تقوم بها هيئة إدارة قطاع البترول في لبنان".

وأكد أنه "لا بدّ من إحياء ما طالبا به منذ نحو سنتين، بضرورة صوغ "إعلان بعثدا اقتصادي" يجمع كل الأفرقاء ليشبكوا الأيدي وينكبوا على إبعاد شبح الإنهيار الإقتصادي عن لبنان وجبه كل التحديات والمشكلات التي تعوق نموّه وازدهاره، وبالتالي الإفادة من كل الفرص المتاحة على أكثر من صعيد ولا سيما التنقيب عن النفط والغاز في البرّ وفي مياهنا الإقليمية".

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Uncrossing wires – An



# emergency rescue plan for Lebanon's electricity sector

## Executive



Lebanon's electricity sector faces severe difficulties on multiple levels, making it an unsustainable burden on the economy in general and the state budget in particular. Problems extend across all stages of the business process, from production to distribution, even billing and collection, despite the latter having been franchised out to private companies.

Promising proposals – including some very comprehensive ones – to address these issues have been drawn up by and for successive ministers of energy and water, including the latest policy plan approved by the Council of Ministers in June 2010.

These plans can work, but only when the required political decisions are taken to revive this vital sector by insulating it against personal and private interests, be they direct or

indirect. Only in this way can we honor both the spirit and the letter of legislation already passed by Parliament by getting on with the implementation stage.

Several matters require urgent attention, including financial and administrative difficulties that have held up construction of a planned 435-MW generating station at Deir Ammar and a similar facility at Zahrani, the combined output of which would provide the country with at least a bare minimum of its power needs. Specifically, the Council for Reconstruction and Development should be tasked with securing the necessary funds from supporting institutions so that implementation can start immediately.

### **The politics of electricity**

The national interest demands that this be done as quickly and as cleanly as possible, because the last thing Lebanon needs is a dispute with a contractor that leads to court proceedings and/or arbitration that could take years to unfold. It is clear that franchising measures adopted by the Ministry of Energy and Water are tainted with a lot of gaps.

Easing Lebanon's chronic power shortages also calls for urgent action to expedite the delivery and installation of new generating units at the Jiyeh and Zouk plants. Timing is everything in such cases, because every day of delay increases the financial drain and other burdens on all consumers, from households and schools to companies and government offices. This directly undermines the productivity and competitiveness of the national economy, restricting GDP growth and soaking up resources.

Even more importantly, preventing future crises and enabling long overdue reforms demands that oversight be exercised by a duly constituted Electricity Regulatory Authority. Such a body has been created by legislation but successive governments have failed to appoint its five member leadership commission,

as called for under Law No. 462 of 2002, preventing the authority from exercising its powers. There is an urgent need to appoint the Electricity Regulatory Authority, as more than 14 years have passed since the issuance of the law calling for its formation, without any legal or legitimate reason being provided for this delay.

The failure to fully implement Law 462 has prompted the legislature to pass Law 288, which alters Article 7 of Law 462 by adding the following paragraph: “Temporarily, for a period of two years, and until the appointment of members of the Authority and giving them their tasks, the production permissions and licenses will be granted by a decision of the Council of Ministers upon a proposal of the Ministers of Energy and Water, and Finance.”

The establishment and empowerment of structures similar to the Electricity Regulatory Authority has been crucial to developing and implementing advanced energy and consumer-protection strategies in jurisdictions around the world – including Europe and our own Euro-Med region – so it remains a mystery why some parties insist on denying this proven setup to Lebanon and the Lebanese.

And as though all that were not sufficient to bring development of the sector to a standstill, a new board of directors has not been assigned for Électricité du Liban (EDL), the country’s state owned power company, since 2005. This has sharply curtailed or even eliminated follow up on the completion of major projects designed to help meet minimum requirements, and committed Lebanon to huge amounts of money.

Then there is the matter of the fuel required for the generating stations at Zahrani and Deir Ammar. Based on the advice of Électricité de France (EDF) and under the terms of the national energy strategy developed in 1992–1993, both facilities were designed and built to operate primarily on natural gas rather than diesel oil. This would impart several

benefits, including lower production costs, less environmental impact and longer service lives for generating units.

Once again, however, political bickering and clashes of personality have prevented full implementation of the plan, in this case by failing to secure the necessary gas supplies. As a result, both plants have been run almost exclusively on oil derivatives, obviating some of their design advantages and burdening the treasury with massive bills for fuel that is dearer, dirtier and less efficient.

An agreement was signed in 2009 to finally link Deir Ammar with the Arab Gas Pipeline, built to carry Egyptian gas to customers in Israel, Jordan, Lebanon and Syria, but the deal was never fully implemented. And in light of mounting instability in the region since 2011, it is highly unlikely that Lebanon will see any benefit from this for the foreseeable future: Egypt has been unable to meet its existing supply obligations for the past three years, and badly needed repairs and maintenance cannot be carried out on Syrian sections of the pipeline through which any Lebanese imports would have to traverse.

### **Regasification, regulation**

Since operation of the electricity plants in Zaharani and Bedawi that relied on natural gas has become impossible without the presence of gas pipelines, and the natural gas liquefaction near the production facilities has become indispensable and irreplaceable, it is imperative for the Lebanese state to start buying, renting or establishing a floating station(s) for liquified natural gas storage, and for its regasification – necessary for the two power plants in Zaharani and Deir Ammar. A floating storage regasification unit (FSRU) would need to be established in each, even if that required the expansion of the port, or the establishment of breakwaters to protect the station from marine factors.

The procurement of the two FSRU stations would allow enormous savings on the price of fuel, significantly reducing the need for public financial support for EDL. It also would substantially reduce the utility's debt ratio; a crucial requirement because the potential impact of government and EDL measures to improve bill collection remains limited. This would lead to the reduction of financial transfers to the EDL mitigating the debt to GDP ratio, particularly since the capability of the government and EDL to collect bills and prevent electricity theft or attacks to the grid remains limited, reducing the ability to rein in the deficit.

Initially at least, both floating stations should be rented or leased, provided that the awarded contractor or promoter has both the requisite international experience and a demonstrated ability to supply the natural gas in addition to the stations simultaneously. This would translate into substantial cost savings for the control and supervision of the facilities. Any such agreement also should follow the "key in hand" method, which would leave the financing of construction to the contractor, reducing the risk to the state and allowing it to start paying only when it has taken delivery of fully operational facilities. And since we know in advance the amount of fuel required by the power plants, the contract should stipulate the dates, quantities and costs of gas deliveries. This formula has been tried and tested in several jurisdictions, including Dubai, Jordan and Kuwait, and there is no reason why it would not work in Lebanon.

Until steps are taken to regularize the electricity sector by implementing existing legislation, and until the almost year long vacancy in Lebanon's presidency is filled, it is advisable that oversight be exercised jointly by the Parliament and the Council of Ministers.

No individual, though, no matter how influential, can make this happen without securing the trust and cooperation of others. Some features of the Lebanese political landscape are

difficult to agree on, but this one is not. National pride, political responsibility and basic common sense dictate that we act quickly to end the mismanagement of this problem. Only then can we start eliminating all forms of waste, alleviating the losses of the state and meeting the needs of power hungry homes and businesses.

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## دعا "اغتنام دعوة بري إلى التلاقي للحوار الإقتصادي بارودي: للإسراع في تثبيت حقوق لبنان النفطية



المركزية- فيما لبنان لم يطلق بعد صفارة البدء بالتنقيب عن النفط والغاز في المنطقة الاقتصادية الخالصة، صدر في الأيام الأخيرة كلام عن رئيس مجلس النواب نبيه بري مفاده أن إسرائيل تسرق الغاز اللبناني، الأمر الذي من المفترض أن يحث المسؤولين المعنيين على التعجيل في إتمام هذا الملف من جوانبه كافة، لأن الوقت ليس لصالح لبنان.

الخبير الدولي في شؤون النفط رودي بارودي شدد على وجوب تثبيت الحدود مع دول المنطقة كافة، لكنه لفت إلى أن "المشكلة تكمن في عدم توقيع ثلاث دول في المنطقة هي تركيا وسوريا وإسرائيل، معاهدة الأمم المتحدة لقانون البحر حتى اليوم، والتي تحدّد لكل دولة المنطقة الاقتصادية الخالصة، وما لدى لبنان اليوم هو تقريبا 20

ألف كلم2 في البحر".

وأضاف في حديث لـ"المركزية": من أصل 854 كلم2 من المنطقة المتنازع عليها مع إسرائيل، تمكن لبنان عبر الوسيط الاميركي، من تثبيت سيادته على ما يقارب 530 كلم2، لكن تم ذلك على وقع خلافات حول ترسيم مساحات أخرى بين لبنان وإسرائيل، ولبنان وسوريا، وبين تركيا وقبرص.

وقال بارودي: على الحكومة أولاً أخذ ما أعلنه الرئيس بري في اليومين الأخيرين على محمل الجدّ وعدم التهاون في هذا الموضوع، وإجراء الاتصالات اللازمة للتثبت من المعلومات حول سرقة إسرائيل للغاز اللبناني، وبالتالي رفع شكوى إلى الأمم المتحدة في القضية، واتخاذ الإجراءات الكفيلة بمنع إسرائيل من ذلك. وثانياً استكمال الإجراءات وإقرار القوانين اللازمة ولا سيما قانون الإستكشاف البري، والإسراع في تثبيت حقوق لبنان النفطية، خصوصاً أن لا مبرر للتأخير في البدء باستكشاف اليابسة ولا مشكلة في ذلك، علماً أنه الأقل كلفة على الإطلاق مقارنة بالإستكشاف البحري.

وإذ حيا جهود الرئيس بري في هذا المجال، شاكراً متابعته الحثيثة لهذا الملف لتجنب لبنان إضاعة هذه الفرصة الذهبية، دعا بارودي جميع السياسيين إلى الإفادة من فسحة الحوار والتلاقي التي دعا إليها بري مطلع العام المقبل لتذليل الخلافات السياسية، واغتنامها للتحاور والتوافق على إزالة العقبات الإقتصادية وحلحلة مسائل هامة عالقة وأولها ملف التنقيب عن النفط والغاز، والإتفاق على البدء باستكشافهما براً وبحراً.

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**« LE LIBAN DOIT PROFITER DE  
LA BAISSSE DES PRIX DU BRUT**

**POUR LANCER L'EXPLORATION »**

# **L'Orient LE JOUR**



les récentes déconvenues de Chypre – où Total et Eni ont coup sur coup annoncé des résultats de forage négatifs – sont-elles un mauvais signe pour le bassin levantin de la Méditerranée en général, et le Liban en particulier ?

Je ne pense pas que cela remette en cause le potentiel de ce bassin, même si Chypre a peut-être été trop pressé de faire de grandes annonces avant de valider la présence de réserves importantes. Total, qui a des décennies de présence dans la région, reste positionnée sur Chypre, et Eni va continuer ses forages dans les blocs dont elle a obtenu la concession. Pour l'instant, le fait que le bloc 12, attribué à Noble Energy, ne contienne que 4,5 TCF (milliards de pieds cubes) de gaz au lieu des 7 espérés a remis en cause le projet de construction d'une usine de liquéfaction du gaz à Vassilikos. Mais Chypre, et tout le bassin levantin (hors Grèce), peut devenir l'un des principaux fournisseurs en gaz de l'Europe. Il pourrait assurer 20 à 23 % des besoins de ce marché qui cherche à diversifier ses approvisionnements, assurés aujourd'hui à 55 % par la Russie.



Le statu quo continue de prévaloir sur le plan libanais où le processus d'attribution de licences d'exploration est suspendu depuis novembre 2013. La chute des prix du brut ne va-t-elle pas accentuer encore le retard de Beyrouth par rapport à Chypre et Israël en repoussant la date du redémarrage de l'appel d'offres ?

Si l'on réfléchit en termes de production, la baisse des prix internationaux ralentit en effet les activités. C'est la raison pour laquelle Total a estimé qu'il valait mieux ne pas se lancer dans une phase commerciale à Chypre. En revanche, Total sait bien que c'est le moment de poursuivre l'exploration, car les coûts opérationnels et les coûts d'équipements sont au plus bas. C'est le même raisonnement que devrait tenir le Liban. Il doit saisir l'opportunité que représente la chute des cours pour lancer la phase d'exploration en attribuant des licences, sachant que les compagnies auront ensuite trois à cinq ans pour proposer des programmes de production. La priorité doit être de forer. D'abord dans l'idée d'approvisionner le pays pour ses propres besoins énergétiques, et ensuite pour réfléchir à une éventuelle stratégie d'exportation vers l'Europe. N'oublions pas que, juridiquement, ce marché est à 70 kilomètres du Liban. C'est un véritable atout. Il faut cependant au préalable transformer les estimations en matière de réserves en certitudes. Sachant que, tout autour du Liban, il existe des champs gaziers et pétroliers, il n'y a aucune raison de ne pas en trouver ici.

Le niveau des prix du brut devrait-il favoriser le lancement de l'exploration terrestre au Liban ?

Israël vient de lancer la prospection sur le Golan. La Syrie a des réserves prouvées de 2,5 milliards de barils de brut. Le Liban n'a quant à lui toujours pas de loi pour encadrer l'exploration onshore. C'est pourtant le moment de la lancer. La production reste intéressante, même aux niveaux actuels du marché, car les coûts d'exploitation des gisements terrestres

sont bien moins chers que ceux des gisements offshore.

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Cette capacité de réactivité suppose une vision stratégique et une impulsion politique...

Les deux décrets nécessaires au lancement de l'appel d'offres (sur la délimitation des dix blocs composant la zone économique spéciale et le contrat devant lier l'État aux compagnies) sont prêts et font déjà l'objet d'un accord politique. La loi sur la fiscalité est en cours de finalisation et je ne pense pas qu'elle pose de problèmes majeurs. Ce qui manque, c'est le consensus politique pour redémarrer le processus. Au-delà, le pays doit se doter d'une stratégie nationale en matière énergétique. Et, là encore, le Liban devrait saisir l'opportunité de la baisse des coûts du brut pour réaliser les investissements indispensables en matière d'infrastructures. Je pense en particulier à la nécessité d'alimenter les centrales électriques du pays en gaz. Cela passe par la construction d'un gazoduc le long du littoral dont le coût serait réduit aujourd'hui de 30 à 40 %. Il faudrait aussi louer une centrale flottante de regazéification du gaz naturel liquéfié en attendant de trouver du gaz au large du Liban. Selon mes calculs, l'économie réalisée – coût de location de la barge compris – serait de 600 à 900 millions de dollars par an pour le Trésor, sachant qu'à 90 dollars le baril, les pertes d'Électricité du Liban étaient de deux milliards de dollars par an.

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# CYPRUS AND LEBANON PARTNERSHIP WOULD BE WIN-WIN – BY ROUDI BAROUDI

THE DAILY STAR  
LEBANON



Lebanon's hosting of a key Cypriot Cabinet minister this week must have optimists in both countries hoping that in politics, at least, there really is no such thing as coincidence. Both sides have long experience with the various discomforts associated with being buffeted by outside forces, but only rarely – if ever – have both had so much to gain by joining forces to ride out the storm.

The minister in question was George Lakkotrypis, holder of the powerful Energy, Commerce, Industry and Tourism portfolio in the recently installed government, and while diplomatic sources were quoted as saying the visit was mostly “symbolic,” there is reason to believe that what it presages could be very concrete indeed.

Both Cyprus and Lebanon are just a few years from becoming producers of natural gas, and while their opening positions and respective approaches have thus far been different, each is looking increasingly like the other's best friend.

Their relatively large banking system having been crippled by exposure to the meltdown in Greece, the Cypriots had to request a bailout and are still emerging from a bruising encounter with the so-called “troika” of the European Union,

the European Central Bank and the International Monetary Fund. The government has managed to negotiate a better overall deal than that which the troika originally sought to impose, but it remains to be seen whether Cyprus can also secure the necessary time and space to meet its obligations without putting its economy through undue – and completely unnecessary – hardship.

The irony here is that while Cyprus is currently starved for cash and forced to implement strict measures against capital flight, the coming gas bonanza will soon make short work of its debt, a single undersea block having been reliably estimated to hold deposits of gas worth approximately twice the total cost of the bailout. And since these reserves are hardly a state secret, it is difficult to understand why the troika has been so insistent on enforcing such tough terms.

Some suggest that the motivations actually have little to do with Cyprus' finances but are driven instead by Europe's complex relationship with Russia.

Harsh as the bailout measures are, Cyprus had little choice in the circumstances but to accept and implement them in full to help the country emerge from the crippling financial crisis. There are useful lessons to learn from now on in economic management.

How early Cyprus emerges and bounces back to a new era of economic prosperity – which is for sure soon – will depend on the focus and attention given, as well as reinforcing the enabling environment to attract private investment into the large emerging oil and gas developments.

Cypriots should take consolation that the current hardships will be short-lived, if the appropriate measures are taken to tap its hydrocarbon reserves. There is still a lot of good will in the international financial markets and the Gulf toward Cyprus. With the show of commitment and demonstrated will, and resolve to ride the current storm, the future looks bright. After the crisis, there are prospects for economic rebound and long-term steady growth.

Come what may, the combined logics of geology, geography and

economics dictate that Cyprus will become a regional energy hub. That destiny may be delayed and/or diluted by other factors – including the U.S.-brokered reconciliation that is expected to open up massive sales from another emerging gas power, Israel, to the nation that still occupies a third of Cyprus' territory, Turkey – but it will not be denied.

All that remains to be seen is how soon the island nation will be able to build the liquefied natural gas plant and other infrastructure elements that only make sense on its shores, and the biggest obstacle is the troika's insistence on frontloading Cyprus' obligations under the bailout deal, which will make funding more difficult to secure.

For these and other reasons, many Cypriots feel they are being treated unfairly by their European partners, a conclusion that is difficult to question. Just as understandably, the Cypriot government will be casting about to see what gains it can realize by pursuing stronger economic and political ties with its friends outside Europe.

And here sits Lebanon, hemmed in between an ever-hostile Israel and a self-immolating Syria. Its people, too, dream of a more affluent future made possible by gas revenues, but it also faces constraints imposed by geopolitical factors.

Whatever the extent of the hydrocarbons locked off its coast, their practical value is largely a function of whether Israel will try to prevent their recovery; and how cheaply they can be got to market.

The Lebanese need Cyprus on both counts because the latter already has a signed deal delineating its maritime boundaries with Israel and could therefore be instrumental in mediating a Lebanese-Israeli understanding (even if unofficial); and its opening of the aforementioned LNG plant would provide a necessary outlet for Lebanese exports.

As luck would have it, the Cypriots could use a little help from Lebanon too: a long-term deal for Lebanese gas as feedstock would further enhance the LNG facility's economic viability, and Lebanon's contacts in the Arab world might be useful in securing strategic investors for this and other

projects, something that would pay added dividends by boosting broader international confidence in the recovery of Cyprus' economy.

The potential for a genuine win-win outcome is very real, but only if the Lebanese and the Cypriots recognize the need to work together – and avoid getting distracted by either local or international politics.

Roudi Baroudi is an energy and environment economist based in Doha, Qatar.

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## Lebanon's gas future remains in limbo

**THE DAILY STAR**  
LEBANON



BEIRUT: To drill or not to drill. This question is on the lips of energy officials and international oil companies as they watch with frustration Lebanon's more than decade-long delay in issuing licenses to drill for oil and gas.

All energy officials interviewed by The Daily Star said they were keen to see the two decrees passed that set the number of offshore blocks available for auction and determine the

revenue-sharing arrangement between the government and producers. But they noted that the matter continued to be plagued with problems.

None of the officials could cite a final date for the approval of the two decrees, adding that the Cabinet committee headed by Prime Minister Tammam Salam is still reviewing the details of the decrees with members of the Petroleum Administration.

"I really don't know when the Cabinet will discuss the two decrees. The Petroleum Administration met the committee last week and answered all the queries and made some modifications to the decrees," Energy and Water Minister Arthur Nazarian told The Daily Star.

The minister added that the date for the new licensing round will only be set once the Cabinet approves the decrees.

"Once the decrees are passed, I will invite the companies to bid for the offshore gas five to six months from the date of approval. But frankly, I don't have a clue when these decrees will be passed," Nazarian said.

He revealed that a senior U.S. official may come to Lebanon soon to discuss the country's dispute with Israel over a roughly 870-square-kilometer piece of offshore territory.

In April 2013, Amos Hochstein, U.S. deputy assistant secretary for energy diplomacy, visited Lebanon and Israel in a bid to mediate an agreement on the matter.

A government source close to Salam said the Petroleum Administration made some progress on the two decrees, but declined to say when the Prime Minister would add the matter to the Cabinet agenda.

"The oil issue is quite complicated because we have external and internal matters that should be resolved first. We are

waiting for the United States to resume its mediation efforts between Lebanon and Israel to solve the row over the disputed zone and then we need to persuade some ministers who have certain concerns about the gas licensing round," the government source said.

He noted that while Salam had acknowledged the importance of the matter, he had yet to take concrete action. "I can't say that the two decrees will be passed in February," he added.

He said that ministers were aiming to reach a consensus on the matter before it goes to the Cabinet. "If one minister out of the 24 ministers objected to the decrees then we go back to square one."

Roudi Baroudi, a leading energy expert, told The Daily Star that Salam is keen to speed up the two decrees after the necessary studies have been completed.

Baroudi, who met the prime minister last week, underscored the importance of also reaching an agreement with Cyprus on joint exploration in the Mediterranean.

"We need to finalize our agreements with Cyprus for joint development production fields and to consider any economic study for our gas to use the LNG facility that is being designed in Vasilikos," he added.

Baroudi argued that there is no need to demarcate the joint territorial waters with Cyprus, insisting that the Cypriots are keen to start gas drilling with Lebanon.

"I suggested to Salam that the Petroleum Administration be given executive power instead of acting as a consultative body," Baroudi added.

He believes that Speaker Nabih Berri is one of the few influential politicians who can move the gas exploration case forward in Lebanon.



Baroudi said Lebanon is estimated to have over 120 trillion cubic feet of gas off its coast, which is more than Israel and Cyprus.

A report about Lebanon's potential oil and gas wealth prepared by Credit Libanais Economic Research Unit said the economic benefits of these commodities would be enormous.

The report, which was based on the studies carried out by Spectrum and other firms which conducted an offshore 3-D seismic survey, believes that Lebanon could gross over \$100 billion in revenues over the next 20 years if the estimates of potential resources turn out to be correct.

"We assume that the government's revenues from the exploitation of oil and gas will mainly stem from a 15 percent corporate income tax, a 60 percent profit share on hydrocarbon production, a royalty fee of 4 percent on gas production, and royalty fees ranging between 5 percent and 12 percent on oil production (average of 8.5 percent adopted)," the report said.

"We expect the government's revenues from oil & gas production to stand at \$3.58 billion during the first year of production (2020) before increasing steadily over the 20-year horizon following the launching of hydrocarbon extraction, reaching \$8.15 billion during the 20th year (2039). Consequently, we expect the government's deficit to shed 5.64 percentage points during the first year of extraction and settle at 4.36 percent of nominal GDP, with this gap dropping to 4.36 percentage points during the last year of extraction," the report projected.

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# بارودي لـ «الجمهورية»: النفط موجود براً وقبرص بوابتنا الى أوروبا

## الجمهورية



شدّد الخبير الدولي في قطاع الطاقة رودي بارودي على أهمية تعزيز العلاقات بين لبنان وقبرص في ملف النفط والغاز، لأنها أقرب منطقة إلينا تسمح لنا بالدخول الى الاسواق الاوروبية. وركز على أهمية المسح البري الذي يجري راهناً والذي من شأنه تزويدنا بمعلومات مهمة عن النفط والغاز والثروة المائية لاسيما الينابيع البرية.

أنجز الخبير الدولي في قطاع الطاقة رودي بارودي دراسته الأخيرة لهذا العام حول «وضع الطاقة في المنطقة» بعد الدراسة السابقة التي أعدّها في هذا الشأن عام 2008.

وفي حديث لـ «الجمهورية» أكد بارودي ان الدراسة لا تنحصر بلبنان فقط بل تتحدث عن التقدم الذي شهدته الدول المجاورة للبنان مثل قبرص اسرائيل غزة وسوريا في حقل الاستكشاف والتنقيب عن النفط، ومن حيث تحديد الكميات أو المخزون النفطي واستناداً الى دراساتهم ما هو المخزون النفطي المرتقب في لبنان.

وشدد بارودي على أهمية المسح البري الذي يقام راهناً نظراً لأهميته من حيث مساعدة الحكومة على تأكيد احتمالات وجود النفط في لبنان.

ولفت الى انها المرة الاولى منذ 60 عاماً يحصل فيها تقدم في المسح البري، لافتاً الى انه منذ العام 2002 بدأ مسح offshore بواسطة 2D و3D. والمسح البري الذي يقام راهناً من شأنه تزويدنا بمعلومات مهمة عن النفط والغاز والثروة المائية من حيث الينابيع البرية،

لذا من الضروري عدم تضييع الفرص في هذا المجال للإفادة من هذه الثروة إلى أقصى حدّ.

وتشمل الدراسة خرائط تظهر أماكن تواجد آبار النفط والغاز في كل من سوريا وقبرص وفلسطين وغزة، وتظهر هذه الخرائط وجود النفط والغاز في كل البلدان المحيطة بلبنان، ما يؤكد ان في لبنان نفط وغاز.

### التعاون مع قبرص

من جهة أخرى، شدّد بارودي على «أهمية تعزيز العلاقات بين لبنان وقبرص في ملف النفط والغاز، وتنمية أواصر التعاون خصوصاً في مجال الغاز السائل والتصدير إلى أسواق أوروبا لأنها الأقرب على الإطلاق لتسويق الغاز».

أما عن جدوى التعاون مع قبرص في هذا الملف، أوضح بارودي ان لبنان في حاجة الى تصدير الغاز عند بدء استخراجه لأن احتياطه من الغاز أكبر بكثير من حاجته، كما ان التصدير ضرورة لتوفير الاموال للخزينة واقرب سوق يمكن ان تصدر اليه النفط أو الغاز هو أوروبا وأقرب بلد اوروبي في محيطنا هي قبرص التي تبعد 100 كلم عن لبنان.

لذا نحن في حاجة للتعاون مع قبرص لانها بوابتنا الى أوروبا، خصوصاً وأن أوروبا تستورد الغاز من بلدان تبعد عنها أقله 4 الاف كيلومتر.

واستيراد أوروبا من الغاز يمر بنحو 7 بلدان، حيث تضطر الى دفع ضرائب الى 7 بلدان أقله. انطلاقاً من ذلك، نرى ان للبنان موقعاً استراتيجياً في تصدير النفط الى أوروبا، مروراً بقبرص.

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## The Cyprus solution

# Executive



*by* Roudi Baroudi

How European-Mediterranean energy collaboration can solve problems all around

More and more people are arriving at the same conclusion: a miracle cure for much of what ails the European Union is close at hand, and Cyprus is easily the best place to dispense it.

Apart from Germany and a few other exceptions, the EU economy is in a historic slump, while its appetite for energy makes it unnervingly dependent on Russia, which supplies a third of Europe's gas imports, and other suppliers outside its borders – thereby making the union dangerously vulnerable to factors beyond its control. The recent confrontation over Ukraine only underscored the potential precariousness of this arrangement: while Russia is not likely to damage its own interests by turning off the taps that supply its biggest customer, its pipelines cross the borders of multiple countries that might perceive an interest in disrupting the flow.

Luckily, however, all recent exploration work indicates that deposits beneath the Eastern Mediterranean seabed contain sufficient amounts of oil and (especially) natural gas to revitalize Europe's economy for decades to come.

Cyprus, Israel, Lebanon and Palestine share what has emerged as a collection of world-class formations; Israel is the only country that has already begun to exploit its reserves, but Cyprus should follow in a few short years. Palestine's potential can't be unlocked until some kind of deal is reached with Israel, and Lebanon has been delayed by domestic political infighting, but the latter's reserves now appear to

be the most extensive of the four. And in the longer term, new studies show that Greece may be the real kingpin of the Eastern Mediterranean, further enlarging the region's capacity to fuel a European renaissance with cheap, safe and reliable energy supplies.

It is difficult to overstate the potential of this treasure trove. Going by the latest estimates, Cyprus will shortly be in position to provide clean, safe and reliable supplies that will meet 20 percent of Europe's gas needs. Throw in Lebanon and Israel, and that figure rises to 30 percent, while Greece could bring it to 40 percent by 2020. By increasing the number of competing producers, development of the Eastern Mediterranean will also lead to lower energy prices, driving growth across the EU.

For the producers, it means a new shared stake in peace and stability, massive revenues to fund socioeconomic development and permanent reductions in poverty and other needs. For the consumers, it means an economic revival on the scale of America's 'fracking revolution' – with far less controversy and environmental risk.

For the EU as a whole, it can mean even more: restoring both the momentum of the European project and public faith therein, and reducing tensions among member states, particularly along the traditional North–South axis, caused by economic hardship. It can also transform Europe's southeastern flank, turning a source of instability and refugees into one of opportunity and partnership. Nothing would more fully accomplish the goals of the Euro–Mediterranean ideal, as refined over the years at Trieste, Barcelona and other venues.

### **Passing the pipe**

These and other gains will not be achieved without first surmounting a few obstacles. The primary political hurdles include Israel's dismal relations with its Arab neighbors,

which make direct cooperation virtually impossible for the time being. Meanwhile, the main technical challenges center on getting the gas to thirsty markets on the European mainland, as well as other customers in East Africa and South Asia.

Cyprus can solve all of these problems – and more – by avoiding, simplifying or essentially erasing them. Its diplomatic position already gives it friendly ties with countries on both sides of the Arab–Israeli divide, and its geographical location makes it the only logical place to situate a new regional energy hub. If the necessary investments are forthcoming, that hub will gather the gas produced by all Eastern Mediterranean countries for distribution via pipeline, ideally via Greece's Ionian Sea. Why the Ionian? Because that's where Greece's potential deposits are situated, so running the pipe through there means turn-key access when those reserves are ready to enter the European energy mix.

In the past I've referred to this link as the 'Peace Pipe,' mainly because it would almost force the Arabs and the Israelis to regard one another as indirect business partners rather than as mortal enemies. From the EU's perspective, we could also call it the 'Prosperity Pipe,' since it would substantially decrease production and other costs, restoring much of Europe's competitiveness and opening the way for the revival of its economy.

Other potential markets are far removed from pipeline routes, so the hub should also include a liquefied natural gas (LNG) plant, the output of which would be carried by ship to power stations and other customers along the African and Asian littorals, places where energy is badly needed to achieve development goals. Dubbing this the 'Peace Plant' sounds about right, but it's what the facility will achieve, not what anyone will call it, that will be important. Opening access to more customers will further expand the shared stake of Arabs and Israelis, lessening the likelihood of future conflict.

Once again, the placement of these prospective LNG markets docks perfectly with Cyprus' geographical and diplomatic qualities, further reinforcing its status as the most commercially viable site to serve as host for the region's emerging energy economy.

But there's more – much more. As an EU member state, Cyprus is party to its stringent environmental and competition laws, rules by which other current and potential suppliers (notably Russia and even more distant producers in Central Asia) are not bound. This means no more worries about transit rights, after-the-fact price disputes or violations of sulphur standards: gas processed, piped or shipped through the island would be bound to comply with EU standards on these and other issues.

### **Europe's choice**

Rarely has any undertaking, let alone one with such far-reaching ramifications, been more eminently qualified to receive official EU recognition as a Project of Common Interest, or key energy infrastructure. The EU's uppermost governing body, the European Commission, is the rightful catalyst to bring all of these considerations together, not only by providing its own funds, but also by recruiting and coordinating other sources of financing, including the World Bank, major international oil companies (IOCs) and other public, private and multilateral actors.

There is reason for optimism. The European Commission of late has demonstrated increasing interest in the potential of the Eastern Mediterranean in general and Cyprus in particular – and greater awareness of the urgency involved. Vice President and Energy Commissioner Günther Oettinger made all the right signals at an energy conference in Malta, and his voice will be heard, not just because he hails from Germany and is therefore seen as representing the 'North European' perspective, but also because his personal reputation is for

sober analysis rather than over-enthusiastic boosterism.

In fact, Cyprus will almost certainly become some sort of gas hub regardless of European stewardship: Halliburton and Schlumberger, the world's biggest oil and gas services providers, have already selected the island as their respective regional headquarters, which tells us all we need to know about what industry insiders think.

The difference is that if the private sector takes the lead, the hub will be designed, developed and oriented to serve the interests of the IOCs; benefits will certainly accrue to Cyprus and the rest of the EU, but mostly as side effects. By contrast, if Brussels plays its rightful role, the entire process will be shaped in such a way as to maximize its advantages for EU citizens. More than ever, the choice is clear.