

# 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.

---

## 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 الإقتصادية 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 الإقتصادية الخالصة، وما لدى لبنان اليوم هو تقريبا 20 ألف كلم<sup>2</sup> في البحر".

وأضاف في حديث لـ"المركزية": من أصل 854 كلم<sup>2</sup> من المنطقة المتنازع عليها مع إسرائيل، تمكن لبنان عبر الوسيط الاميركي، من تثبيت سيادته على ما يقارب 530 كلم<sup>2</sup>، لكن تم ذلك على وقع خلافات حول ترسيم مساحات أخرى بين لبنان وإسرائيل، ولبنان وسوريا، وبين تركيا وقبرص.

وقال بارودي: على الحكومة أولاّ أخذ ما أعلنه الرئيس بري في اليومين الأخيرين على محمل الجدّ وعدم التهاون في هذا الموضوع، وإجراء الإتصالات 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، خصوصاّ 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 للتجاوز والتوافق على إزالة العقبات الإقتصادية وحلحلة مسائل هامة عالقة وأولها ملف التنقيب عن النفط والغاز، والإتفاق على البدء باستكشافهما براً وبحراً.

---

« 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.

(Lire aussi : Le pétrole bon marché, cadeau inespéré pour les consommateurs libanais ?)

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.

---

# 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.

---

## 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.

---

# 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 لنا 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».

اما 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 نصدر اليه النفط أو الغاز هو اوروبا وأقرب بلد اوروبي في محيطنا هي قبرص التي تبعد 100 كلم عن لبنان.

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

واستيراد اوروبا 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 اوروبا، مروراً بقبرص.

## 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.

---

**Gaz : Chypre et la région  
peuvent-ils rivaliser avec la  
Russie ?**

**L'Orient  
LE JOUR**





« Toute personne ou entité se sentant concernée par l'avenir économique de l'Union européenne (UE) devrait œuvrer à faire de Chypre une plate-forme énergétique régionale. » Ces propos ont été tenus lors de la conférence euro-méditerranéenne sur l'énergie qui a eu lieu du 10 au 12 juillet courant, par l'expert libanais en matière pétrolière et gazière et ancien secrétaire général du Conseil énergétique mondial, Rudi Baroudi. Pour illustrer ses dires, M. Baroudi est revenu sur le conflit entre l'Ukraine et la Russie, « qui a montré au grand jour la vulnérabilité de l'Europe, qui dépend de la Russie pour plus d'un tiers de ses importations de gaz ». « S'il y a un projet qui mérite que les membres de l'UE planchent dessus en commun, pour éviter une dépendance énergétique accrue, c'est bien celui-là », a assuré l'expert international.

Pour le vice-président de la Commission européenne et commissaire chargé de l'Énergie, Günther Oettinger, « une plus grande diversité dans l'approvisionnement de gaz est un des objectifs-clés de notre politique ». « Si l'idée de faire de Chypre un hub énergétique se concrétisait, le pays pourrait devenir une source importante d'approvisionnement pour l'Europe, qui est aujourd'hui le plus important importateur de

gaz au monde », a rappelé de son côté M. Baroudi. Selon lui, « avec les réserves en gaz présentes en Méditerranée orientale, Chypre pourrait fournir environ 20 % des besoins européens ». « Si on ajoute à cela les récentes découvertes en Israël et au Liban et les possibles découvertes offshore en Grèce, ce chiffre pourrait atteindre 40 % d'ici à 2020 », a-t-il prédit. Rappelons ici qu'Israël exploite déjà ses réserves gazières offshore, alors que, parallèlement, le processus d'appel d'offres pour l'attribution des licences d'exploration au Liban est bloqué depuis plusieurs mois, faute d'accord en Conseil des ministres.

### **Les nombreux avantages de Chypre**

Rudi Baroudi a convenu que la Russie resterait un pilier principal sur le marché européen de l'approvisionnement énergétique, mais il a cependant tenu à mettre en avant les nombreux avantages qu'apporterait la participation de Chypre. « Du fait de sa situation géographique, l'île permettrait de passer outre les différends dus aux axes de transit et rééquilibrerait le nouveau paysage énergétique en contribuant à une baisse des prix », a-t-il indiqué. « Par ailleurs, ce nouveau partenaire renforcerait la position internationale de l'Europe car il ne représente aucune menace puisqu'il fait partie intégrante de l'UE », a poursuivi M. Baroudi. Enfin, selon l'expert, cette nouvelle donne, si elle a lieu, « servirait les intérêts géopolitiques de la région ». « En devenant la plate-forme de distribution du gaz des pays est-méditerranéens comme le Liban, Israël et éventuellement la Palestine, Chypre leur donne également un intérêt commun à la préservation de la paix et de la stabilité dans la région », a ajouté M. Baroudi.

Ce dernier argument a particulièrement convaincu M. Oettinger, qui a insisté sur « l'importance de la stabilité des pays fournisseurs de gaz ». « L'UE a tout intérêt à ce que la région ne s'enflamme pas car les risques de contagion sont une menace constante », a-t-il affirmé.

---

# Cyprus: EU energy hub of the future?

**THE DAILY STAR**  
LEBANON



ST. JULIAN'S, MALTA: EU officials and experts voiced support over the weekend for proposals to turn Cyprus into an energy hub for Europe in order to reduce the continent's dependence on Russian gas.

The European Commission Vice President Gunther Oettinger, one of the key speakers at an energy conference in Malta, strongly advocated a long-term alternative to Russian gas.

"Stability in the region is important for our own security, as volatility, rivalry and unrest could spill over into the EU," Oettinger said. "Security of gas supply is of particular mutual interest, and reinforcing the regional trade in gas would be of significant benefit to gas producers and consumers in the EU, North Africa and the Middle East."

Oettinger also outlined a need in Europe for liquefied natural gas, which Cyprus hopes to make part of its emerging status as an energy hub with the eventual opening of a massive LNG plant.

“LNG will be an important flexibility element and we need to better use our existing and future regasification capacities,” he said. “We also need a reinforced partnership with Norway, the acceleration of the Southern Gas Corridor and the promotion of a new gas hub in Southern Europe.”

Echoing similar views, energy expert Roudi Baroudi said the recent confrontations between Ukraine and Russia underlined Europe’s vulnerability, because it depends on Russia for about a third of its gas imports.

“If you want to shield the EU from energy dependence, establishing a new regional energy hub in Cyprus is the only game in town. If anything merits official EU recognition as a Project of Common Interest, this is it,” Baroudi argued.

He added that the island nation offers several advantages over other options for Europe’s energy security.

“It would bypass disagreements over transit routes, avoiding internal bottlenecks and price disputes,” he explained. “And for good measure, the new energy landscape would lead to lower prices by contributing to healthy competition among several suppliers.”

The event, which also addressed Malta’s potential as a gateway for the emerging eastern Mediterranean energy economy, drew a variety of senior figures from the public and private sectors. It was co-hosted by Maltese Energy Minister Konrad Mizzi, his Cypriot counterpart George Lakkotrypis, and Oettinger, who also serves as energy commissioner.

The event was attended by several European and Mediterranean ministers, including President of the European Energy Council

Claudio De Vincenti and the Greek Energy and Environment Minister Yiannis Maniatis.

---

## **Syria's civil war stagnates oil production**



In May 2013, Syrian Oil Minister Suleiman Abbas told the parliament that output was down 95% from the 380,000 b/d produced prior to the start of the uprising in March 2011, to 20,000 b/d, and that gas production had halved to 15mn cm. In November, Abbas gave the parliament worse figures for the sector, with output at 772,540 tonnes (105,374 barrels) in 1Q2013, down 37.1% from 1,299,100 tonnes (177,197 barrels) in 4Q2012, according to a report in Syrian daily Tishreen. This would be a steep fall to just over 1,000 b/d for oil in government-controlled areas. Natural gas output – which is still held largely in government hands – had declined from 2,020,800 cm to 1,558,760 cm during the same period, a drop of 22.9%. OPEC's December 2013 monthly oil report was more upbeat, estimating Syria's output to average 90,000 b/d in 2013.

This almost certainly has to include rebel-controlled area production, although OPEC did not clarify this and added a health warning: 'The lack of production data from Syria due to the ongoing political situation might bring a large revision once the numbers become available.' Indeed, knowledge of what is happening inside Syria's oil sector is scant. One prominent international energy consultancy firm turned down an interview with Petroleum Review, stating: 'The situation is still

unclear and it's very difficult to assess the impact on oil and gas infrastructure. We do not provide speculative commentary.' Estimating damages to infrastructure is clearly difficult to quantify, although the regime has estimated it at some \$70mn. Damage to the country's 6,000 km of pipeline has been minimal, however. 'There are clearly losses in terms of production, and determinate costs on what it will cost to re-start production, as to whether damage to facilities is due to the conflict or because it was not maintained or used. There is no idea what the scale is,' says David Butter, Associate Fellow at the Middle East and North Africa Programme at Chatham House. Losing oil control What is clear is that Syria's energy sector is in bad shape. Abbas stated to the Syrian parliament that 40,000 barrels of oil were being stolen every day from across the country, losing the industry \$1.4bn directly and \$17.7bn indirectly up to the end of 3Q2013.

Meanwhile, \$500mn was being spent monthly on imports of oil and derivatives to meet demand. While the government of President Bashar al-Assad blames sanctions imposed on Syria in late 2011 by the US and the European Union (EU) for the loss of oil revenues, the reality is that the regime has lost control of the key oil producing areas. 'While the regime is regaining important areas in the west and north-west of Syria, it has not achieved much in the desert close to the fields of eastern Syria, which has a large presence of the [rebel movement] Islamic State of Iraq and al-Sham (ISIS), some of the most capable fighters. I don't think the regime will create a new front with ISIS to control the fields because it cannot concentrate on these areas for logistical constraints, as focusing on the east would compromise the western front, which is already fragile,' comments Ayham Kamel, a senior Middle East analyst at the Eurasia Group. 'So the oil sector will suffer for a prolonged period of time, mainly because fields are in areas under the control of rebels, and they're unlikely to lose control for the foreseeable future,' he adds. With international oil companies having left Syria

(Chinese companies pulled out in 2013) and oil sector workers having fled production areas, the rebels have been forced to extract oil as best they can, utilising very basic methods to refine the country's heavy crude oil. According to a report in the regional Arabic-language daily Al-Hayat, in the area around Deirez-Zor in the north-east, rebels are operating some 3,000 small-scale refineries. 'Anecdotal evidence suggests small amounts are produced and exported to Turkey, and refined in a rudimentary way, probably tens of thousands of barrels a day only,' says Butter. Kamel, however, thinks production is just in the thousands of barrels per day, which has been a stumbling block to the April 2013 EU plan of lifting sanctions on oil exports from rebel-controlled areas to help bolster the opposition. 'It's been a big fiasco. The plan was unrealistic, to export some of that oil to outside markets and create a sustainable revenue stream for, at that time, the Syrian National Council. It was mainly a tool to boost morale among the opposition, as implementing it was very difficult – the regime has an air force and could attack significant deliveries, and the opposition was always divided. If the opposition had made a coherent front and controlled fields, they could have had volumes in the tens of thousands of barrels – but again, vulnerable to regime attacks,' says Kamel. 'Now, many opposition groups control the fields, follow no political authority and they have little or zero experience in operating the fields. It is hard for the fields to be monetised in any significant way, as such small volumes are for local use,' he adds. Offsetting losses To offset domestic losses and keep its military machine running, the Syrian government has had to import fuel. According to Butter, prior to the conflict, Syria was consuming around 320,000 b/d, half of that figure being gas-oil and diesel, while half overall was imported. 'It is obvious that total consumption is a lot less than it used to be, but there's no real indication what it may be; perhaps around 150,000 to 200,000 b/d.

There are a few indications as to how the regime is meeting

its liquid requirements, which appears to be a mix of importing products and crude,' he says. A key refinery at Homs city in western Syria has ceased operations, or at best is operating at 10% of capacity, notes Butter, leading to most refining happening at Baniyas on the regime-controlled coast, which has a capacity of around 130,000 b/d. International media reported in December 2013 that Syria is being supplied with crude from Iraq and Iran via private traders in Egypt and Lebanon, with shipments routed to Beirut and Baniyas. 'My reading is Baniyas has four units – two for heavy crude from Iran, and two configured for lighter crudes for Iraqi crudes; but there's no firm information on it,' comments Butter. Indicative of neighbouring Lebanon's role, mineral (oil, gas and solid minerals) imports have surged, as have exports, going from \$3.7bn imports in 2010 and exports of \$56mn, to \$4.6bn in 2013 and exports reaching \$350mn, according to Lebanese customs data. 'State-owned oil companies are not allowed to sell to Syrians [due to the sanctions], but private traders can,' notes Lebanon Energy Analyst Roudi Baroudi. A positive note While the overall picture for Syria's energy sector is grim, in December 2013 Damascus inked a 25-year, \$100mn concession with Russian firm Soyuzneftegaz to explore for offshore oil and gas. Although offshore exploration is likely to go ahead because there are no maritime security concerns in Syria, revival of the sector onshore will have to wait for the end of hostilities – assuming the peace talks have any success. 'The oil industry should be the most important thing to come back on track, as a major aspect of GDP, so it should be up and running very fast [once peace is secured]. It all depends on the EU and US lifting sanctions,' concludes Baroudi.