

# **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.

# قدّم إلى سليمان دراسته الأخيرة حول "الطاقة في المنطقة" بارودي: "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 بد" من إحياء ما طالبنا به منذ نحو سنتين، بضرورة صوغ "إعلان بعيدا 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".

## 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 تقريباً 20 ألف كلم2 في البحر".

وأضاف في حديث لـ "المركزية": من أصل 854 كلم2 من المنطقة المتنازع عليها مع إسرائيل، تمكن لبنان عبر الوسيط الأميركي، 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 متابعتة 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 .