## La fronde anti-éoliennes prend de l'ampleur



Par Marie-Estelle Pech

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ENQUÊTE — Le gouvernement souhaite doubler le nombre d'éoliennes sur le territoire dans les cinq prochaines années. Mais la contestation s'intensifie et réunit des opposants de tous bords.

Après les McDonald's et les champs d'OGM, la prochaine cible des écologistes ou des zadistes sera-t-elle l'éolien? En juin, un feu criminel détruisait une éolienne et en endommageait une autre à Marsanne, dans la Drôme. L'attaque a été revendiquée mi-juin par un site libertaire précisant «s'attaquer aux dominations». Du bourgeois au militant mélenchoniste en passant par l'anarchiste, le pêcheur et le châtelain, l'opposition à l'éolien est «de plus en plus composite», affirme Fabien Bouglé, porte-parole du collectif d'opposants Touche pas à nos îles! en guerre contre le projet de parc éolien au large de l'île de Noirmoutier, en Vendée.

Certes, cette opposition a historiquement débuté chez des pronucléaires situés bien à droite, «mais ça change», souligne

cet élu versaillais, spécialiste du marché de l'art, qui témoigne avoir assisté à une lecture sur le sujet dans une «librairie anar de gauche» à Paris, et qui prophétise «une grande révolte populaire anti-éoliennes». D'autant que semble s'opérer une mutation: la contestation, jusque-là cantonnée aux citoyens et aux associations anti-éoliennes, trouve désormais des voix et des relais dans le monde politique pour porter le combat.

Ainsi Xavier Bertrand, ancien ministre du Travail et actuel président de la région des Hauts-de-France, qui a lancé fin juin un observatoire de l'éolien afin de mieux contrôler l'expansion des parcs dans sa région, qui «défigure complètement les paysages» et «coûte les yeux de la tête». Ou encore ces dix députés, tant de la majorité que de l'opposition, qui ont signé une tribune, «Stop aux nouvelles éoliennes!», dans nos éditions du 20 juin dernier.

## Projet «antidémocratique»?

La France constitue aujourd'hui le quatrième parc d'Europe derrière l'Allemagne, l'Espagne et la Grande-Bretagne. Sa proportion d'électricité éolienne représente moins de 5 % de sa consommation mais, d'ici à 2023, les éoliennes terrestres devraient doubler, passant de 7300 à quelque 15.000. «C'est le deuxième gisement de vent d'Europe et la deuxième façade maritime. Le potentiel est considérable», selon Pauline Le Bertre, déléguée générale de France Énergie éolienne (FEE).

On compte 70 % de recours contre les permis de construire devant les tribunaux administratifs, contre 50 % il y a cinq ans

Si l'Allemagne a depuis longtemps compris «la nécessité impérative d'avoir une transition énergétique, en France, de nombreuses associations jouent sur les angoisses des gens, propageant des idées reçues». Le degré d'opposition à l'éolien

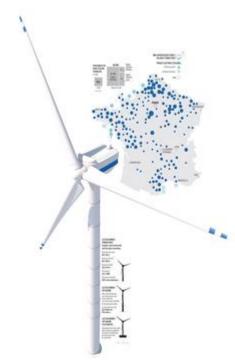
serait, selon elle, unique en Europe, lié à notre historique avec le nucléaire.

De fait, malgré le discours politique français très volontariste sur le sujet, malgré les sondages favorables à l'éolien menés auprès des Français, l'installation des éoliennes suscite de plus en plus d'opposition. On compte 70 % de recours contre les permis de construire devant les tribunaux administratifs, contre 50 % il y a cinq ans. Une perte de temps pour les promoteurs: la mise en route d'un parc est désormais d'environ neuf ans, contre quatre pour l'Allemagne.

Pour accélérer le processus, le gouvernement a décidé de supprimer le premier degré de juridiction, le tribunal administratif, pour passer directement à la cour administrative d'appel. Un projet de décret est actuellement en consultation devant le Conseil d'État. Cela se pratique déjà pour les projets éoliens en mer, les multiplexes de cinéma et les supermarchés. Un projet «antidémocratique» pour Fabien Bouglé, et qui, ces derniers mois, mobilise et durcit plus encore le front anti-éolien.

### **Biodiversité**

Les associations d'opposants s'offusquent aussi d'un décret paru le 11 juillet qui permet de moderniser les parcs zéro existants sans reprendre de toutes les d'impact. Que reprochent ces opposants à l'éolien? Sa laideur, proximité avec des habitations et des sonores, historiques, nuisances ses ses «aveuglantes», des installations entachées de multiples prises illégales d'intérêt de la part des élus. Les arguments sont multiples. Et parfois écoutés.

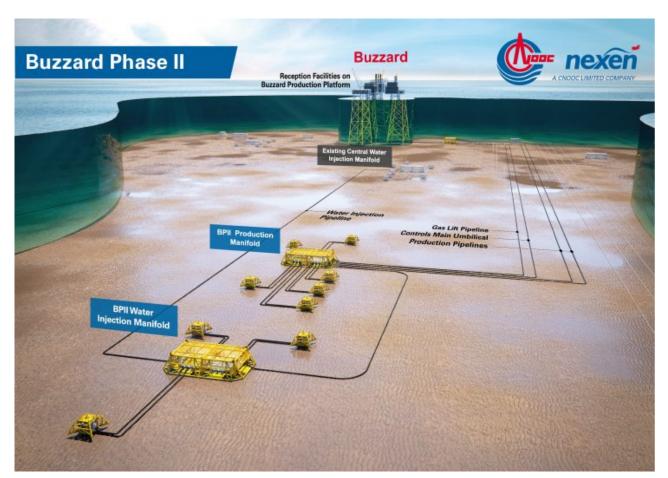


Des éoliennes ne seront ainsi pas installées en arrière-plan du paysage du Mont-Saint-Michel, pas plus que du côté du pont du Gard. Pauline Le Bertre, elle, indique qu'en France «les restrictions d'installation sont les plus élevées d'Europe. On multiplie les études d'impact liées à la biodiversité, le patrimoine, les habitations.» À l'entendre, une éolienne implantée à 500 mètres d'une habitation, le minimum réglementaire, «fait un bruit semblable à celui d'un frigidaire». Elle vante la compétitivité du mégawatt éolien, 64 euros contre 110 pour le nucléaire dernière génération. Inversement, Karine Poujol, à la tête de l'association Gardez les caps, considère que les 64 éoliennes prévues en baie de Saint-Brieucprovoqueront la mort de la biodiversité sousmarine, alors même que la zone est protégée Natura 2000. Elle anticipe un bruit «semblable à celui d'un décollage d'avion».

Loïk Le Floch-Prigent, ancien PDG d'Elf Aquitaine, défend les coquilles Saint-Jacques du cap Fréhel, qui pourraient être «très affectées» par ces installations fixées par 42 mètres de fonds. L'ancien industriel se défend de jouer pour le camp des pronucléaires, lui qui a «toujours défendu le fait qu'il fallait diversifier», rapporte-t-il au *Figaro*. Il met en doute cette politique qui «pénalise notre compétitivité en augmentant nos importations de matériel: 95 % des

investissements de l'éolien viennent d'Allemagne, du Danemark, d'Inde ou de Chine, tandis que deux tiers des exploitants viennent d'ailleurs». Ce printemps, la Cour des comptes affirmait que «le tissu industriel français a peu profité du développement des énergies renouvelables». Malgré des moyens considérables, qui se sont élevés en 2016 à 5,3 milliards d'euros. La prévision de dépense publique en 2023, elle, est de 7,5 milliards d'euros.

## Extension of North Sea megafield gets final approval



Oil firm Nexen Petroleum UK has said its partners have given it the nod to extend the life of the North Sea's biggest producing field.

Nexen, owned by the China National Offshore Oil Corporation, also said the Oil and Gas Authority (OGA) had approved the Buzzard field phase two development.

In November, Nexen's UK managing director, Ray Riddoch, said production from Buzzard would be prolonged by up to 10 years as part of a £500-million-plus project.

A number of contracts have already been awarded to the supply chain, while work on the front-end engineering design was completed in June.

irst oil is expected in the first quarter of 2021.

Operator Nexen owns 43.21% of Buzzard, the largest UK North Sea oil discovery in the past two decades.

Its partners are Suncor Energy (29.89%), Chrysaor (21.73%), Dyas (4.7%) and Oranje-Nassau Energie (0.46%).

Nexen is working on the project with a host of oil field service companies including AGR Well Management, Baker Hughes, a GE company (BHGE), COSL Drilling Europe, Subsea 7 and Worley Parsons.

They have formed an integrated team which is based at Nexen's office in Kingswells, Aberdeen.

The team is going after additional reserves with a subsea development in the northern part of the Buzzard field.

Buzzard, which lies 60 miles north-east of Aberdeen, was discovered in 2001 and produced first oil in 2007.

The latest figures of the OGA show the field is producing more than 140,000 barrels of oil equivalent per day.

A production and water injection subsea manifold will be installed and tied back to the existing Buzzard complex.

A new module will also be added to the complex for processing

and export.

Last week, Subsea 7 said it had won a contract worth between £38-£115m to build and install a three mile pipeline bundle and provide a heavy lift vessel for transporting and installing a new topside module.

BHGE has been chosen to supply a range of subsea infrastructure and topside control systems.

Zvonimir Djerfi, Europe president, BHGE, said the formation of the integrated team was a prime example of companies taking an unconventional approach to collaboration and project development.

## Can the GCC keep afloat without oil?



The GCC as we know it today would not be the same were it not for the discovery of oil in the region in the early years of the last century.

Now, new data has surfaced that predicts the GCC will break its dependence on fossil fuels by 2050, emerging in the new decade with an economy whose fate is no longer tied to the fickle fluctuations of oil prices.

The question remains, however: How effective will the GCC's attempts to wean off hydrocarbons be, and which non-oil sectors will be able to keep it afloat?

### Making a diversified economy a reality

Speaking to Arab News, New York-based firm Fitch Solutions shared information from their latest report covering global trends through to 2050. Their data shows that countries in the GCC like Kuwait, UAE, Saudi Arabia and Bahrain will achieve their goal of a diversified economy by 2050 following their acts of reform.

Initiatives like Dubai's Vision 2021, Saudi's Vision 2030, the implementation of VAT, and the lifting of the ban on women

driving are all heralds of this long-awaited change. As it currently stands, the UAE is ahead of its neighbors, having announced their reformatory Vision 2021 for Dubai back in 2010. According to Trading Economics, 40% of current UAE exports come from oil and natural gas, the lowest in the region.

Other countries, however, such as Kuwait and Oman still have a lot of ground to cover, with the Kuwaiti oil sector accounting for 40% of the country's GDP, 90% of total exports and 80% of state revenues, according to Trading Economics.

These Gulf nations cannot afford to rely solely on oil anymore, as the recurring drop in oil price has shown. The 2014 oil price crash gave these rich countries a pang of reality. During that year, the price of a barrel dropped from around \$115 in June 2014 to under \$27 in February 2016, according to CNBC.

#### Are other sectors enough to support the entire region?

The possibility of oil running out has always existed.

Sooner or later, these countries will need to take action. The question remains, however: could non-oil sectors truly support a region that has been so reliant on fossil fuel revenues?

### Tourism and hospitality staples of the region's economy

In recent years, the UAE has continued to nurture and grow its tourism industry. Dubai International Airport (DXB) was not named the world's busiest airport for no reason. Passenger numbers at the airport topped 43.7 million in the first half of 2018, according to a traffic report issued last month by operator Dubai Airports, up 1.6% from the same period last year.

Dubai, for example, has been seeing a hotel construction boom in anticipation of Expo 2020.

#### Foreign investment is key

These countries are also looking outside their borders for investment opportunities. Saudi's Public Investment Fund (PIF) currently has stakes in several major companies abroad, such as \$72 billion ride-hailing company Uber and future-oriented Tesla.

The PIF's investment in Uber is reported to be worth \$3.5 billion, according to the New York Times. The fund's latest investment has been in Tesla, reported at a 5% stake. The fund has also staked a \$400 million sum in American augmented reality startup Magic Leap.

The country has been intent on investing in technology companies they believe will have a key role in the future of economy as well as mankind.

Inward FDIs are also key, with the UAE and Saudi currently at the forefront of the GCC.

### The future is green

Saudi is also looking at green energy ventures. Earlier this year during March, Saudi Arabia and the SoftBank Group Corporation announced a \$200 billion solar energy project, set to produce 200 GW by 2030. Saudi's vast open deserts permit a project of this scale, and this new project will produce an excessive amount of energy that will eclipse Saudi's needs. This means that the kingdom could become one of the world's greatest exporters of solar energy, distributed using mass batteries.

It seems that 200 hundred years later after it was first invented, we are still relying on age-old technology such as the battery.

The UAE has some solar plans of its own. Its Mohammed bin Rashid Al Maktoum Solar Park in the desert south of Dubai

spans 16.2 km<sup>2</sup>. By 2030, it will have a capacity of 5,000 MW, offsetting 6.5 million tons of CO2 emissions and generating enough energy to power 800,000 homes, Smithsonian Magazine reports.

Bahrain's prospects are not as ambitious just yet. The country has set a target of 10% of total energy consumption to be met through renewables by 2035, doubling the 5% goal by 2025, Electricity and Water Affairs Minister Dr. Abdulhussain Mirza has said.

#### The GCC prepares for a future with blockchain

The rise of cryptocurrencies and blockchain has already sent ripples through the region's banking sector. For the GCC to survive without oil, it will be instrumental that these countries adapt and embrace these upcoming changes.

The National Bank of Abu Dhabi has become the first bank in the MENA region to introduce real-time, cross-border payments on blockchain, Medium reports. The bank has formed a partnership with Ripple.

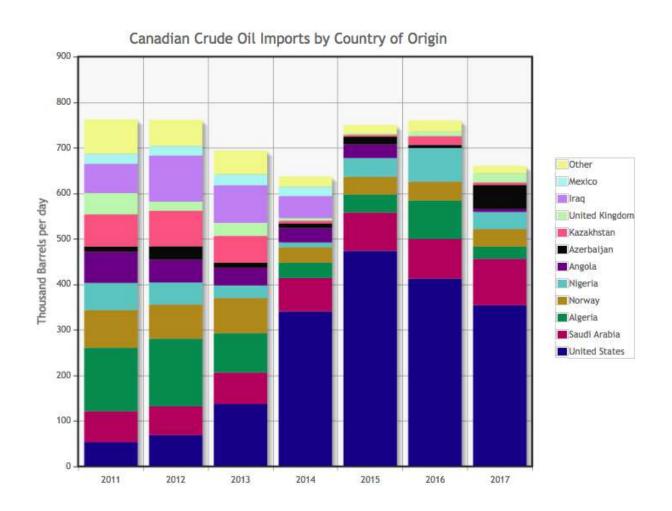
Saudi's central bank has also signed a deal with Ripple for an upcoming project.

## Freight transportation industry in GCC needs an update if it will survive

Freight transportation and logistics (T&L) is a critical industry in the GCC, yet revenues have been on the decline in recent years. Pricewaterhouse Coopers (PwC) analysts blame this on the GCC lagging behind the technological advancements of T&L industries abroad.

If the GCC's T&L industry is to catch up and survive post-oil, they will need to adopt digitization practices to update their services to a more demanding international clientele.

# Why has Canada spent billions of dollars buying Saudi Arabian oil?



## Despite sitting on an ocean of oil, Canada still buys \$300 million per month of Saudi crude

As Saudi Arabia aggressively severs ties with Canada, the two countries' trade relationship hangs in the balance. On one hand, Canada will lose out on Saudi foreign students, military

contracts and sales of wheat and grain. On the other, Saudi Arabia will lose the billions of dollars it earns every year by selling oil to Canada.

For years, it has been an oft-repeated Alberta grievance that these imports exist at all. Despite sitting atop an ocean of proven oil reserves, Canada continues to spend a small fortune every year buying oil from a country that executes homosexuals, flogs dissidents and has a nasty habit of funding Islamic extremism.

Below, a quick guide to why Canadians are still gassing up their cars with Saudi crude.

## Over the last 10 years, Canada has spent \$20.9 billion on Saudi crude

Between 2007 and 2017, Statistics Canada figures show that Canada imported a total of \$20.9 billion of Saudi Arabian petroleum oils. For context, this is almost precisely what Canada spends on its military per year. It's also way more than the expected \$15.7 billion cost of the Energy East pipeline. On average, in recent years, Saudi Arabia supplies about 10 per cent of Canada's oil imports. Canada, in turn, is responsible for buying roughly 1.5 per cent of total Saudi oil exports. What's more, Saudi Arabia is climbing the leader board of countries that Canada's relies upon for its foreign oil. As recently as 2010, Saudi Arabia ranked as Canada's fifth largest supplier of foreign oil (behind Algeria, Norway, the U.K. and Kazakhstan). Now, Saudi Arabia is second only to the United States.

## Right now, all the Saudi oil is coming through a single New Brunswick refinery

All of the Saudi oil imported into Canada in 2017 and 2018 came through New Brunswick, which only has one oil import facility: The massive Irving Oil-owned Saint John refinery. Between January and June of this year that refinery has imported \$1.8 billion of Saudi oil — roughly \$10 million per

day. The amount of U.S. oil entering the refinery, for comparison, is equivalent only to about \$3.8 million per day. Unlike most Canadian refineries, Saint John has no access to a pipeline; every barrel of oil it processes either comes by tanker or train. (The oil train that caused the Lac-Mégantic rail disaster, in fact, was headed to the Saint John refinery). "We source crude oil from all over the world for our refinery in Saint John, N.B.," a spokesman for Irving Oil told the National Post in 2016. And whenever someone is seeking out the cheapest product from the world market, it's not unusual that a lot of it is going to come from oil-rich Saudi Arabia. It's like turning to the world market to buy the cheapest possible t-shirts: Chances are that they're going to come from Bangladesh.

### Alberta and Saudi oil aren't necessarily the same thing

On paper, Canada could become energy self-sufficient tomorrow. Every day we produce about 3.9 million barrels of oil per day, and use less than 2 million barrels. A study this year from the Canadian Energy Research Institute even calculated that energy self-sufficiency might reduce emissions. But think of oil like whiskey: There are many different types and qualities. A bourbon connoisseur probably isn't going to be happy with a bottle of Old Crow and a Manhattan isn't going to taste the same if it's made out of Scotch. Similarly, Alberta oil is not interchangeable with the stuff coming out of Saudi Arabia. Andrew Leach, an energy economist at the University of Alberta, even said that comparing the two is like comparing apples and oranges. "Saudi crude and WCS (Western Canadian Select) doesn't overlap much in terms of their markets," he told the National Post. For one thing, most eastern Canadian refineries cannot process bitumen, the thick tar-like hydrocarbon that comes out of the Athabasca Oil Sands. Almost anybody can process Saudi Arabian crude, but only an elite fraternity of the world's most complex refineries can turn Alberta bitumen into gasoline. To get to the east coast, Canadian bitumen also has to be shipped overland from more

than 4,000 kilometres away, significantly adding to its total costs (Saudi Arabia is 10,000 kilometres away from the Canadian east coast, but tanker shipment is cheap). It's also why Western Canadian Select, the industry name for most oil sands bitumen, sells at such a steep discount to more conventional oil types coming out of Saudi Arabia. In June, for instance, WCS sold at an average of USD\$52.10 a barrel, compared to USD\$67.87 for West Texas Intermediate (WTI), an oil category priced similarly to most Middle Eastern oils. "The oil Alberta produces is simply of a lower quality than ... WTI, and is located farther away from customers," writes the Alberta government in an online briefing note describing the WCS "discount."

## Even with a pipeline, it's not a guarantee that refineries would buy Canadian

The cancelled Energy East pipeline, of course, would have pumped Saskatchewan and Alberta petroleum into New Brunswick. Politicians touted the pipeline as a way to supplant foreign suppliers such as Saudi Arabia. "We believe this nationbuilding project would have benefited all of Canada through new jobs, investment, energy security and the ability to displace oil being imported into Canada from overseas," Alberta premier Rachel Notley said upon the project's cancellation. However, refineries are no different than a driver cruising gas stations looking for a fill-up: They seek out whoever has the best price and buy accordingly. If Alberta can't sell its oil on the Atlantic Coast for a lower price than Saudi Arabia, refineries aren't going to buy it particularly if they can't process it. "Getting product from Western Canada, while conceptually sounding like a good way to push out Saudi oil, doesn't fix everything," said Jason Parent with the Canadian oil industry analyst Kent Group. As of press time, WCS is currently selling at an incredible \$30 discount over more conventional oil types. While this would likely be enough to entice Atlantic buyers, the discount isn't always so competitive — particularly if Saudi Arabia is actively trying to overproduce and drop oil prices in order to kneecap the Canadian and U.S. oil industry. This is part of the reason why Canada never built a pipeline to the east coast in the first place. A west-to-east pipeline was indeed considered soon after the discovery of oil in Alberta in the 1940s, but it was soon scrapped. "Eastern provinces did the math and found it cheaper to import foreign oil by tanker, rather than bother with the extra cost of domestic supply," said Peter Tertzakian, director of the Calgary-based Arc Energy Research Institute. However, even if the business case is a little complicated, Tertzakian still advocates a pipeline as something Canada should do for strategic reasons. "We could be completely self sufficient if we wanted," he said. "It's just a question of how much we are willing to pay for it."

#### Canada can't really hurt Saudi Arabia's bottom line

The easiest way for Canada to cut off Saudi Arabia imports would be simply to buy more American oil. It's about the same it doesn't require specialized facilities and considering that they already buy so much of ours, there's a certain justice to it. The U.S. also has an excellent human rights record compared to the Saudis. But while such a move might assuage Canada's moral compass, the practical effect would be almost nil. It's a seller's market for oil right now. Production of U.S. shale oil is slowing down, Iran is being hammered by sanctions and petroleum demand continues to tick upwards all over the world. All this means that if Canada could successfully prevent a drop of Saudi oil from ever entering our borders again, it's unlikely that Riyadh would ever notice. Any oil tanker turned away at Saint John could simply set course for New Jersey. Unlike Canada, Saudi Arabia sells a product that is easy to transport and that can be processed by almost anyone. Said Andrew Leach, "Saudi oil will still sell at the world price."

# ExxonMobil's Ocean Investigator sails for block 10 of EEZ



ExxonMobil's Ocean Investigator research vessel sailed on Tuesday night from Limassol port into block 10 of Cyprus' Exclusive Economic Zone (EEZ) to carry out hydrocarbon explorations for the US oil giant.

The Ocean Investigator had docked at the port of Limassol on March 14.

A second research vessel of ExxonMobil's, Med Surveyor also departed from Limassol on Tuesday and headed towards Piraeus, Greece, after having completed its environmental research in block 10.

## 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 l," 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 centm;y, 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 o f pioneering research, development commercialisation of gas-toliquids (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 worlds wealthiest nationstate on a per capita basis, winning it a choice seat at the table when major power 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 re!lected 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 !lows, 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 !lourishing energy initiatives in virtually all comers 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 todays 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 subsea 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, worked very sucessfully to foster has 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 gamechanger in reducing poverty, and the Qatari government has worked to ensure that thegas 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.

## قد م إلى سليمان دراسته الأخيرة حول "الطاقة في المنطقة" بــارودي: "إعلان بعبــدا اقتصادي" يجنسب الإنهيـار



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المركزية- تسلَّم 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 أعدَّها 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 وخصوصا البدء بالمسح البري بعد مدة زمنية فاقت الــ60 عاما منذ آخر عملية استكشاف، وضرورة عدم تضييع الفرص في هذا المجال للإفادة من هذه الثروة إلى أقصى حد ".

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 بعبدا اقتصادي" يجمع كل الأفرقاء ليشبكوا الأيدي وينكبوا على إبعاد شبح الإنهيار الإقتصادي عن لبنان وجبه كل التحديات والمشكلات التي تعوق نمو"ه وازدهاره، وبالتالي الإفادة من كل الفرص المتاحة على أكثر من صعيد ولا سيما التنقيب عن النفط والغاز في البر" وفي مياهنا الإقليمية".

# Uncrossing wires - An emergency rescue plan for Lebanon's electricity sector





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 Jiyyeh 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 Zahrani 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 التلاقـي للحـوار الإقتصادي بارودي: للإسـراع فـي تثـبيت حقوق لبنان النفطية

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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 تحد ّد لكل دولة المنطقة الإقتصادية الخالصة، وما لدى لبنان اليوم هو تقريبا ً 20 ألف كلم2 في البحر".

وأضاف في حديث لــ"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 أولا ً أخذ ما أعلنه الرئيس بري في اليومين الأخيرين على محمل الجد 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. وثانيا استكمال الإجراءات وإقرار القوانين اللازمة ولا سيما قانون الإستكشاف البري، والإسراع في تثبيت حقوق لبنان النفطية، خصوصا أن لا مبرر للتأخير في البدء باستكشاف اليابسة ولا مشكلة في ذلك، علما أن ه الأقل كلفة على الإطلاق مقارنة بالإستكشاف البحري.

وإذ حيا جهود الرئيس بري في هذا المجال، شاكرا متابعته الحثيثة لهذا الملف لتجنيب 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 برا وبحرا .

## « LE LIBAN DOIT PROFITER DE LA BAISSE DES PRIX DU BRUT POUR LANCER L'EXPLORATION »





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, 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 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 offshores.

(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 %. faudrait aussi louer une centrale flottante 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.