

# An open letter to U.S. Secretary of State Mike Pompeo



RE: Your Visit to Lebanon – Energy Diplomacy

Dear Mr. Secretary:

Your visit to Lebanon comes at a moment of both rare opportunity and significant peril for this part of the world. I note this not only as a citizen of Lebanon, but also as a resident of the long-troubled Euro-Mediterranean region, and my purpose is to avert a new round of instability for my country and its neighbors.

Multiple world-class hydrocarbon deposits have now been discovered beneath the Eastern Mediterranean Sea, offering a historic chance to upgrade the regional economy, reduce or eliminate poverty, calm regional tensions, improve security and increase international cooperation. Unfortunately, development of these resources is being delayed because so few states have agreed to maritime borders with their neighbors. Setting aside the fate of Palestine, there are 12 “Frontier” boundaries among the seven main coastal states – Greece, Turkey, Cyprus, Syria, Lebanon, Israel and Egypt – and only two (17 percent) have been settled by bilateral treaties meeting current Law of the Sea standards. In a region containing more than \$1 trillion worth of oil and gas, therefore, 83 percent of the maritime borders remain unresolved, posing significant risks to development in several countries – including Lebanon.

With so much of the region facing severe economic problems, the need to expedite development and the ensuing revenues could not be more urgent. Luckily, however, modern mapping technologies now make it possible for LOS applications to settle all such offshore disputes peacefully, and to do so with both relative ease and near-absolute accuracy.

These solutions are exceedingly relevant to your visit. Your meetings here will deal with multiple topics and the linkages among them, but the most portentous is the perennial U.S.

project to foster agreement on maritime boundaries in the Eastern Med, in particular that between Lebanon's Exclusive Economic Zone and Israel's. This is the single area in which U.S. policy has the greatest capacity to effect positive changes – but also the greatest potential for unintended consequences.

Lebanon was one of 50 founding signatories to the United Nations Charter in 1945. Ever since, Lebanese foreign policy has been seated in the Charter's terms, chief among them the obligation to always seek peaceful resolutions of international disputes. That commitment remains very much intact, and this despite the difficult circumstances that Lebanon has long faced as a front-line state in the Arab-Israeli conflict.

Despite – and at least partly because of – their country's difficult location and flawed system of government, the Lebanese exhibit tremendous powers of resilience and an uncanny ability to reinvent themselves. Whatever the crisis, the people of this country are highly adept at making the necessary adjustments. But this cycle cannot continue indefinitely, especially when the national debt is equivalent to more than 150 percent of GDP. Indeed, at a recent aid conference in Paris, donor countries made it clear that their pledges will not materialize unless and until Lebanon implements sweeping reforms, serious anti-corruption measures, and other meaningful steps to get its financial house in order.

Notwithstanding these and other challenges, we may be on the cusp of a prosperous new era. I refer, of course, to the potentially large quantities of offshore hydrocarbons that Lebanon hopes to start tapping in the coming years. If and when production starts, the impacts will be nothing short of game-changing. Just producing natural gas for its own consumption would allow Lebanon's most important power stations to stop running on the fuel oil and gasoil that

increase operating costs, burn dirtier, and wear down generating equipment.

Based on what I've learned from 40-plus years in the energy business, that would just be the beginning because Lebanon also stands to become an energy exporter, opening up substantial new revenues. First, the state would be able to slash deficit spending, borrow at lower rates, and start retiring its debt stock. Next, the government would have the wherewithal to make unprecedented investments in roads, schools, hospitals, and other essential infrastructure. Coupled with the direct and indirect opportunities generated by the emerging energy sector, this would have an immediate and prolonged stimulus effect, leading to tens or even hundreds of thousands of well-paying jobs. It would also make the entire economy more competitive, provide our youth with the education they need to thrive in the 21st century, and give all Lebanese access to quality health care. If wisely managed, gas revenues also could eradicate the poverty and accompanying social inequalities that provide terrorist groups with such fertile recruiting grounds.

I have no doubt that we Lebanese can make our country work, but we need to make difficult choices and craft workable solutions on our own, not implement those demanded by a foreign power – ANY foreign power, no matter how well-intentioned. In fact, many of our current problems stem precisely from decisions that were made in haste, under outside pressure, and/or without sufficient domestic consensus. Nonetheless, many Lebanese are grateful for the US role in mediating the EEZ issue with Israel; on the other hand, many others suspect that Washington's purpose is not to facilitate a fair deal, but rather to impose a lopsided one that favors Israel. Any Lebanese government that signs such a deal will face a significant loss in perceived legitimacy, a significant rise in domestic opposition, multiple resignations by key Cabinet ministers, and possibly the end of its ability

to govern.

There are plenty of hydrocarbons in the Levant Basin for all rightful claimants to receive what is rightfully theirs, and no Lebanese is asking for special favors, just fair and equal treatment. The facts of Lebanon's EEZ case are immutable, starting with the correct location of the land border at Ras Naqoura, which was established under the 1949 Armistice Agreement and can now be precisely situated by precision mapping techniques. All else flows from that, and in any judicial proceedings, each scientific element is weighed against a common set of LOS rules, which derive primarily from three sources: 1) the 1982 U.N. Convention on the Law of the Sea (UNCLOS), a project originally conceived by then-U.S. President Truman and now adopted by 168 countries as the basis for the only global LOS rulebook; 2) the principles and procedures laid down in UNCLOS and subsequent amendments; and 3) the precedents established by UNCLOS' court, the International Tribunal for the Law of the Sea (ITLOS), and other relevant legal proceedings. By all objective observation, technological advances have reached the point where their effect is decisive. In fact, all 13 of the most recent court cases have been adjudicated primarily on the basis of precision mapping.

Based on the rules and the science, then, there can be little doubt about what a verdict in this case would mean: Lebanon would be awarded most of the 881 square kilometers in dispute. So should it be in any out-of-court settlement. We know this because whether delineation is determined inside or outside a courtroom, the same rules apply and the same science drives the outcome: the lines are drawn according to science in the form of the best available maps (which can now be ordered up and received within five business days at most) of the two states' coastal zones. In fact, by some reckonings, preparing an LOS case is now 80 percent scientific work and only 20 percent legal procedure. Crucially, too, Israel has accepted

the applicability of the LOS rules by having agreed to them as the basis for its 2010 EEZ treaty with Cyprus.

Of course, you know the complications: Israel is not a signatory to UNCLOS, so an ITLOS verdict is impossible, and Lebanon does not recognize Israel, so bilateral negotiations are out. Hence the need for outside mediation, and hence the constructive and perhaps indispensable role of the United States, depending on what role it decides to play. If America acts as an arbiter, the end-result cannot be in doubt because it will be based on science and the LOS rules. Such an exercise of fair play could give the entire region a chance to defuse tensions and change direction – and help achieve U.S. goals for the region in terms of security and cooperation. On the other hand, should the United States decide to act primarily as Israel's advocate, it will not be possible for the Lebanese government to accept any proposal that strays materially from the rules and the science.

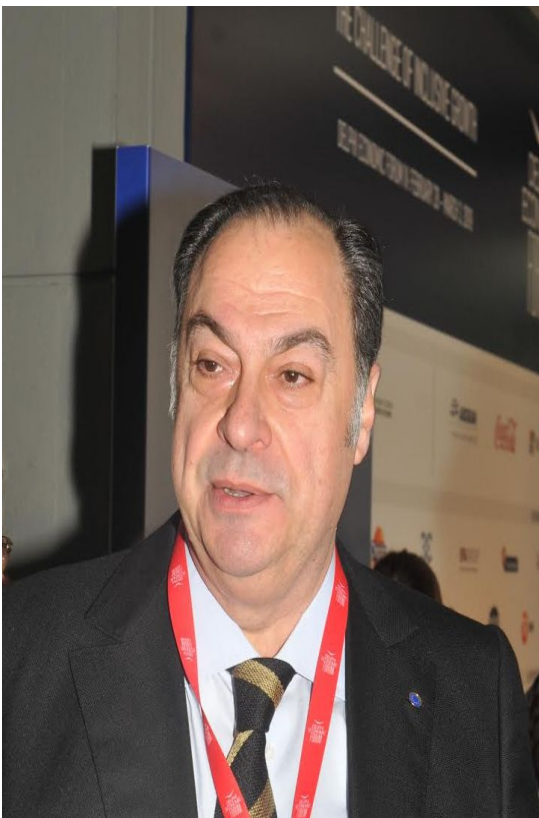
Mr. Secretary,

Since we already know the destination, and that it would benefit both parties, why not take the shortest and surest route? Advise the Israelis to accept a fair EEZ arrangement in a timely fashion, make sure they (and we) honor both the letter and the spirit of that arrangement, and convince them to stop threatening the Lebanese with war. Then watch a shared financial incentive for calm work its magic. The resulting drop in tensions would surely abet another U.S. goal by reducing the threat of trouble at the border, and the longer the Israelis refrained from provocations, the less incentive – and less support – any other actor would have to rock the boat. And were the United States to broker a balanced solution here, it would strengthen its ability to mediate among other nearby states – especially Cyprus, Greece, and Turkey – and therefore have a stabilizing effect on the entire region.

I, for one, hope that the United States, partly in concert

with other actors like the U.N., will continue to use its good offices to help resolve the EEZ matter as equitably as possible. I also hope that progress in this effort will open the way for meaningful internal dialogues, too, about far-reaching reforms on the political and economic levels. In short, Mr. Secretary, we Lebanese need to get real, and the United States can help us do that – but only if it means to help Lebanon, not just Israel, and all Lebanese, not just some of us.

Sincerely,

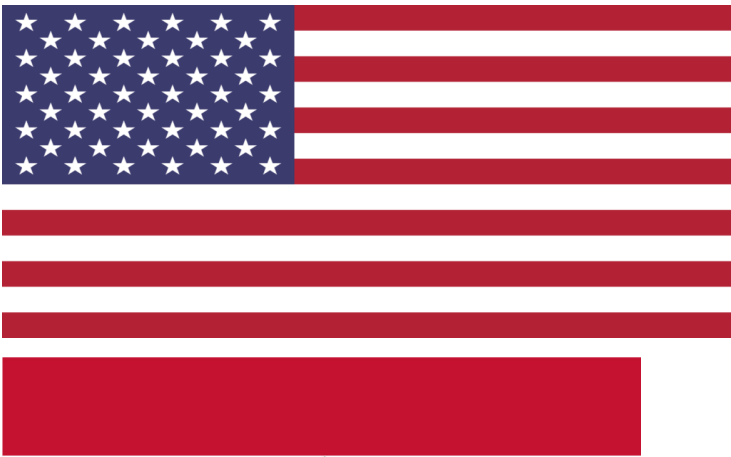


Roudi Baroudi

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# رسالة مفتوحة إلى وزير الخارجية الأميركي: زيارتك إلى لبنان... دبلوماسية الطاقة





، السيد الوزير ،

تأتي زيارتكم إلى لبنان وقت يقف هذا الجزء من العالم امام فرصة نادرة للتطور وخطر كبير للانفجار، ولست أشير إلى هذين الامرين المهمين كمواطن لبناني فحسب، وانما بصفتي شخصا يقيم ويعمل في المنطقة الأورومتوسطية والشرق الأوسط المضطربة منذ مدة طويلة، وهدفي هو تجنب جولة جديدة من عدم الاستقرار في لبنان والدول المجاورة له.

كما تعلمون فقد تم اكتشاف رواسب هيدروكربونية متعددة المستوى تحت شرق البحر المتوسط، مما يوفر فرصة تاريخية لرفع مستوى الاقتصاد الإقليمي والحد من الفقر أو حتى القضاء عليه كما وتهدئة التوترات الإقليمية، ولكن لسوء الحظ، يتم التأخر من الاستفادة من هذه الموارد بسبب قلة عدد الدول التي رسمت حدودها البحرية مع جيرانها. وإذا ما وضعنا جانبا مصير حدود فلسطين، نجد ان هنالك 12 "حدودا" بحرية بين الدول الساحلية السبع الرئيسية: اليونان وتركيا وقبرص وسوريا ولبنان وإسرائيل ومصر، قد تمت تسوية اثنين منها فقط، أي ما نسبته (17%) من خلال تطبيق معايير المعاهدات الثنائية لقانون البحار. في منطقة تحتوي على مخزون نفطي يقدر بأكثر من تريليون دولار من النفط والغاز، لا تزال 83% من الحدود البحرية من دون تحديد نهائي، مما يشكل مخاطر كبيرة على التنمية. في العديد من بلدان المنطقة بما فيها لبنان

إن الحاجة إلى الإسراع بالتنمية وضح الإيرادات المالية الجديدة هي من الامور الملحة والمستعجلة، خصوصا ان دول المنطقة تواجه الكثير من المشاكل الاقتصادية الحادة. من هنا ولحسن الحظ، فان تقنيات رسم تتيح تسوية جميع LOS الخرائط الحديثة بواسطة تطبيقات قانون البحار النزاعات البحرية بهدوء، والقيام بها بكل سهولة وانسيابية ودقة شبه مطلقة.

مما لا شك فيه ان اجتماعاتكم في لبنان ستتناول العديد من الامور والمواضيع المتشابهة، ولكن يبقى الموضوع الأكثر أهمية هو مشروع الولايات المتحدة الدائم لتعزيز الاتفاق على الحدود البحرية في الشرق الأوسط، ولا سيما بين المنطقة الاقتصادية الخالصة اللبنانية والمنطقة الإسرائيلية. هذا هو المجال الوحيد الذي تتمتع فيه السياسة الأميركية بأكثر مكانة لإحداث تغييرات إيجابية، وفي الوقت عينه أكبر خطر لإمكان حصول عواقب غير مقصودة.

يعتبر لبنان واحداً من بين 50 دولة وقّعت ميثاق الأمم المتحدة عام 1945. ومذّاك تمسكت السياسة الخارجية اللبنانية بشروط تطبيق هذا الميثاق، وعلى رأسها الالتزام بالسعي الدائم إلى حل سلمي للنزاعات الدولية، وهذا على الرغم من الظروف الصعبة التي واجهها لبنان منذ مدة طويلة كدولة على خط المواجهة في الصراع العربي - الإسرائيلي.

على الرغم من - وعلى الأقل جزئياً - بسبب - موقع بلدهم الاستراتيجي والمعرض للهزات السياسية والامنية ونظامه المعقّد، فإن اللبنانيين يتمتعون بمرونة هائلة وقدرة غريبة على الخروج من مشاكلهم المستعصية. وعلى مر التاريخ ومهما كانت الأزمة، فإن الشعب اللبناني بارع للغاية في التأقلم مع الازمات والخروج منها. لكن هذه الدورة لا يمكن أن تستمر إلى أجل غير مسمى، لا سيما عندما يكون الدّين العام في لبنان يعادل أكثر من 150% من الناتج المحلي الإجمالي. وقد أوضحت الدول المانحة في مؤتمر عُقد أخيراً في باريس لمساعدة لبنان اقتصادياً، أن تعهداتها لن تتحقق إلا إذا نفذ لبنان إصلاحات شاملة وتدابير جادة لمكافحة الفساد وغير ذلك من الخطوات الهادفة إلى تنظيم وضعه المالي.

على الرغم من هذه التحديات وغيرها، قد يكون لبنان على أعتاب عصر جديد مزدهر وذلك نظراً إلى الكميات الكبيرة المحتملة من الهيدروكربونات البحرية التي يأمل لبنان في البدء باستغلالها في السنوات المقبلة، إذ فور بدء الإنتاج، فإن التأثيرات ستكون كبيرة وعلى كل الصعد. فمجرد إنتاج الغاز الطبيعي للاستهلاك المحلي سيسمح لمحطات الطاقة في لبنان بالتوقف عن استعمال المازوت والغاز اويل اللذين يزيدان تكاليف تشغيل المحطات، ويسببان تلوثاً كبيراً، كما ينهكان معامل التوليد في اوقات قياسية.

بناءً على خبرتي في مجال الطاقة والتي تمتد الى أكثر من 40 عاماً، سيكون هذا التحسن مجرد بداية لأن لبنان سيكون أيضاً مصدراً للطاقة، مما يفتح امامه عائدات نقدية جديدة وكبيرة، ستمكن الدولة أولاً من خفض الإنفاق على العجز، والاقتراض بمعدلات أقل، والبدء بتسديد رصيد ديونها. بعد ذلك، ستحصل الحكومة على الاموال اللازمة للقيام باستثمارات غير مسبوقه في قطاعات مهمة كالطرق والمدارس والمستشفيات والبنية التحتية الأساسية الأخرى، اضافة الى الفرص المباشرة وغير المباشرة التي يولدها قطاع الطاقة الناشئ، وهذا الامر سيكون له تأثير تحفيزي فوري وطويل الأمد، مما يؤدي إلى خلق عشرات أو حتى مئات الآلاف من فرص العمل التي تؤمن اجرا جيداً. كما أنه سيجعل الاقتصاد برمته أكثر قدرة على المنافسة، ويزوّد شبابنا

التعليم المفيد والحديث الذي يحتاجون إليه في القرن الحادي والعشرين، ويمنح جميع اللبنانيين الرعاية الصحية الجيدة والشاملة. وإذا تمت إدارة هذه الثروة بحكمة، فإن عائدات الغاز يمكن أن تقضي على الفقر وعلى الفروق الاجتماعية الحادة خصوصاً في المناطق المحرومة التي توفر للجماعات الإرهابية الأرض الخصبة لتجنيد افراد جدد.

لا أشك في أن اللبنانيين يمكنهم دفع وطنهم الى الامام، لكنهم في حاجة إلى اتخاذ خيارات صعبة وصياغة حلول قابلة للتطبيق، والابتعاد عن تنفيذ تلك التي تطالب بها القوى الاقليمية والاجنبية. في الواقع، فإن العديد من مشاكلنا الحالية تنبع على وجه التحديد من القرارات التي اتُخذت على عجل، تحت ضغط خارجي و/ أو دون إجماع محلي كاف. ومع ذلك، فإن العديد من اللبنانيين ممتدّون لدور الولايات المتحدة في التوسط لحل الخلاف مع اسرائيل المتعلق بالمنطقة الاقتصادية الخالصة. من جهة أخرى، يشك الكثير من اللبنانيين في أن هدف واشنطن لا يكمن في تسهيل التوصل إلى صفقة عادلة، بل فرض واقع غير متوازن لمصلحة إسرائيل. وفي حال رضوخ الحكومة اللبنانية لهذا الحل غير المتوازن ستعرف خسارة كبيرة في شرعيتها، إضافة الى معارضة محلية قوية، وسيصل الامر الى تقديم استقالات من جانب وزراء رئيسيين في الحكومة، وربما نهاية قدرتها على الحكم.

هناك الكثير من المواد الهيدروكربونية في حوض مشرق المتوسط، وهي تكفي جميع المطالبين بها وفقاً لحصصهم القانونية والشرعية، ولا يطلب أي لبناني الحصول على مزايا خاصة او على زيادة غير قانونية، وانما معاملة عادلة ومتساوية. ان قضية المنطقة الاقتصادية الخالصة في لبنان غير قابلة للتغيير او للتلاعب، بدءاً بالموقع الصحيح للحدود البرية في رأس الناقورة التي تم تحديدها بموجب اتفاقية الهدنة لعام 1949، والتي يمكن الآن تحديد موقعها باتقان متناهٍ بواسطة تقنيات رسم الخرائط الدقيقة. ويمكن الاتكاء على هذه النقطة لحل الامور العالقة الاخرى. في أي إجراءات قضائية، يتم مطابقة كل عنصر علمي بمجموعة قواعد قانون البحار، والتي تستمد أساساً من ثلاثة مصادر:

وهو مشروع (UNCLOS) اتفاق الأمم المتحدة لقانون البحار لعام 1982 تم تصوره في الأصل من قبل الرئيس الأميركي ترومان واعتمده الى الآن 168 دولة كأساس لكتاب قواعد لوس أنجلس العالمي وهو الكتاب الوحيد المعتمد.

المبادئ والإجراءات المنصوص عليها في اتفاق الأمم المتحدة لقانون البحار والتعديلات عليه.

السوابق التي أنشأتها محكمة اتفاقية الأمم المتحدة لقانون البحار والإجراءات القانونية (ITLOS) والمحكمة الدولية لقانون البحار الأخرى ذات الصلة.

ان التطورات التكنولوجية المتسارعة وصلت إلى النقطة التي يكون فيها تأثيرها حاسماً في حل النزاعات البحرية. في الواقع، تم الفصل في جميع القضايا الـ 13 المعروضة أخيراً أمام المحاكم البحرية المختصة على أساس علمي. وهذا الأمر أدى إلى الدقة في رسم الخرائط البحرية.

من هنا فإنه بناءً على القواعد المعتمدة والعلوم، لا يمكن أن يكون هناك أي شك حول نتائج الحكم في هذه الحالة: سيتم منح لبنان في حال تطبيق القواعد العلمية معظم مساحة الـ 881 كيلومتراً مربعاً موضع النزاع البحري. سواء تم تحديد الترسيم داخل قاعة المحكمة أو خارجها. علمياً يتم رسم الخطوط وفقاً للخرائط المتاحة (والتي يمكن طلبها الآن وتسليمها في غضون خمسة أيام عمل على الأكثر) من المناطق الساحلية للدولتين. في الواقع، في أيامنا هذه فإن إعداد قضية وفقاً لقانون البحار يكون بنسبة 80% من الناحية العلمية ولا تشكل الإجراءات القانونية سوى 20% فقط. في العام 2010 قبلت إسرائيل قانون البحار من خلال موافقتها عليها كأساس (LOS) تطبيق قواعد لمعاهدة المنطقة الاقتصادية الخالصة الموقعة مع قبرص، وبالتالي فإن أي محاولة لحل النزاع مع لبنان يفرض عليها تطبيق القواعد المذكورة.

بالطبع، أنتم تدركون الصعوبات التي يعرفها هذا الملف، فإسرائيل ليست من الدول الموقعة على اتفاقية الأمم المتحدة لقانون البحار، أمر مستحيل من ITLOS لذلك فإن حكم المحكمة الدولية لقانون البحار الناحية الاجرائية، ولبنان لا يعترف بإسرائيل، لذا فإن المفاوضات الثنائية لا مكان لها. لذلك كانت الحاجة إلى وساطة خارجية مقبول بها من الطرفين، ومن هنا يكمن الدور الذي لا غنى عنه والبنّاء للولايات المتحدة، وهو يتوقف على طريقة تعاطي دولتكم مع هذا الموضوع. إذا كانت أميركا تتصرف كحكم عادل، فإن النتيجة النهائية لا يمكن أن تكون موضع شك لأنها ستستند إلى العلم وقواعد قانون البحار المرعية الاجراء. وفي هذه الحالة يمكن أن تمنح المنطقة بأسرها فرصة لنزع فتيل التوترات. من جهة أخرى، إذا قررت

الولايات المتحدة التصرف بشكل أساسي كحليفة لإسرائيل، فلن يكون ممكناً أن تقبل الحكومة اللبنانية بأي اقتراح يبتعد عن القواعد القانونية والعلم الحديث.

، السيد الوزير

نظراً الى أننا نعرف التوجه العملي الذي سيفيد طرفي النزاع، فلماذا لا تأخذ أقصر الطرق وأكثرها ثقة؟ وتكمن بتقديم المشورة الى الإسرائيليين لقبول ترتيب عادل للمنطقة الاقتصادية الخالصة، والتأكد من أنهم (كما نحن) سيحترمون نص هذا الترتيب وروحه، وبالتالي إقناعهم بالتوقف عن تهديد اللبنانيين بالحرب. وإذا كانت الولايات المتحدة تتوسط لحل متوازن في هذا النزاع، فستعزز قدرتها على التوسط بين الدول المجاورة الأخرى - وخصوصاً قبرص واليونان وتركيا - وبالتالي يكون لها تأثير على استقرار المنطقة بأسرها.

من هنا آمل أن تستمر الولايات المتحدة، بالتنسيق مع جهات فاعلة أخرى مثل الأمم المتحدة، في استخدام مساعيها الحميدة للمساعدة في حل مسألة المنطقة الاقتصادية الخالصة. كما آمل أيضاً أن يفتح التقدم في هذا الملف الطريق لإجراء حوارات داخلية ذات مغزى حول الإصلاحات البعيدة المدى على المستويين السياسي والاقتصادي، والتي يحتاج إليها لبنان.

باختصار، السيد الوزير، نحن اللبنانيين في حاجة إلى أن نكون واقعيين، ويمكن الولايات المتحدة أن تساعدنا ولكن شرط أن يكون ذلك عبر مساعدة لبنان، وليس فقط إسرائيل، وجميع اللبنانيين، وليس بعضهم.



خبير طا قوي

رودي بارودي

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**Sanctions aren't stopping  
Russia's LNG ambitions**



Despite the imposition of US and EU sanctions in the energy sector, new projects continue to flourish in Russia. Already the world's largest exporter of traditional natural gas, the country is gaining a foothold in the liquefied natural gas market. For the last 3 years, Russia's LNG capacity has been growing substantially.

Competition from Qatar, Australia, and the US, the world leaders in LNG exports, coupled with the impact of political tensions after the Ukraine crisis, have made Russia reconsider its traditional pipeline exports. After Lithuania and Poland built their own LNG terminals with gas from Norway, Qatar and most recently the US, Gazprom's conventional gas intake was significantly diminished in both countries. Despite Gazprom's cheaper price, Lithuania and Poland preferred to pay a premium for their LNG to reduce the dependency on Russia's energy resources.

Gaining a foothold

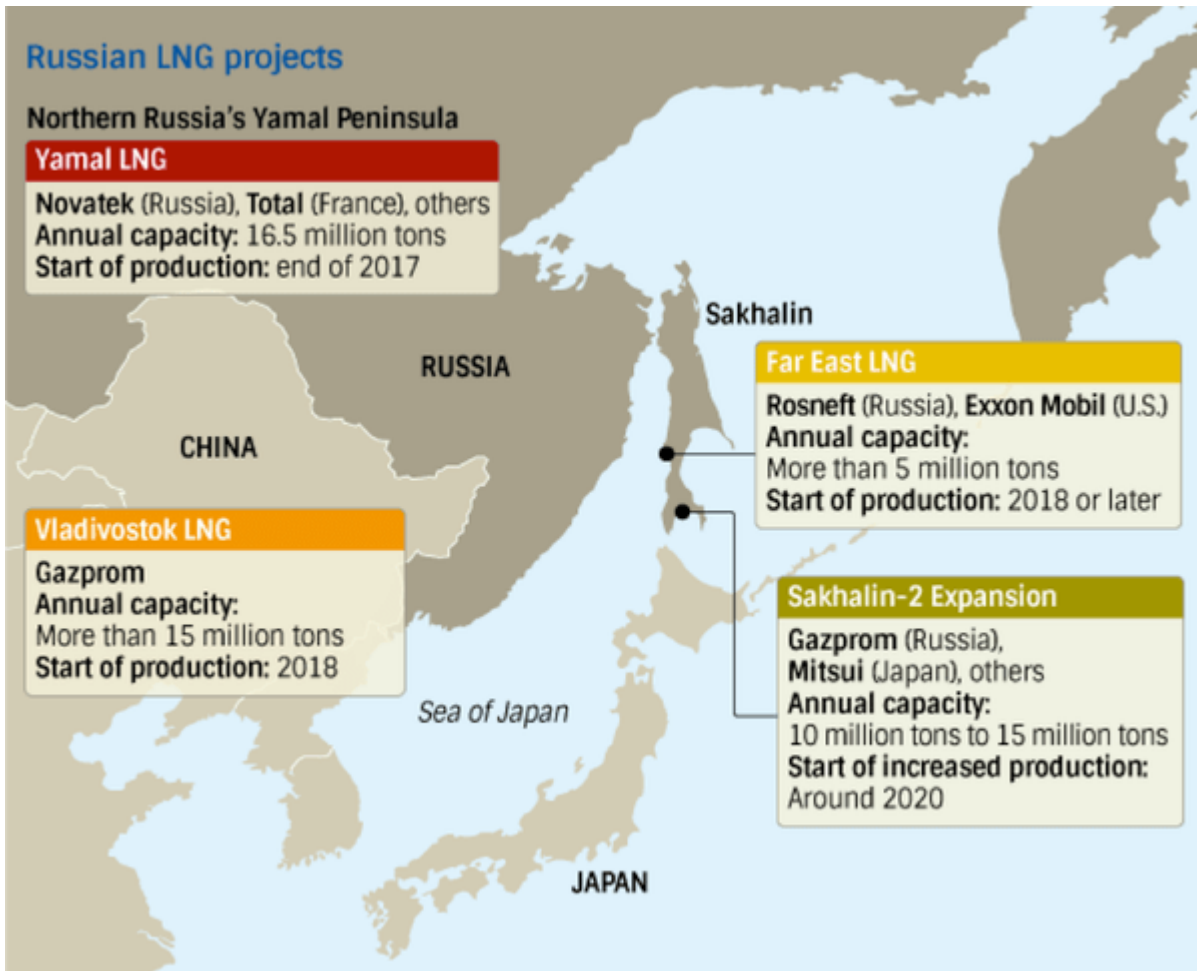
Novatek, Rosneft and Gazprom each set out to develop their own unconventional gas resources. Novatek's Yamal LNG is Russia's

most ambitious project. Based on the Kara Sea in the Arctic Circle, gas extraction is conducted under the permafrost, which makes it incredibly challenging. Funded by Russia's Novatek, France's Total, China National Petroleum Corporation, and China's Silk Road Fund, Yamal LNG is a \$27 billion facility that will start full operation in 2018. It will produce 16.5 million tonnes of LNG per year. Yamal LNG's gas plant will be finished in November. As a symbolic gesture, Russia will send the first shipments to China, which supported the project. Another four shipments will follow in December.

Rosneft is developing its Far East LNG project in Sakhalin, which aims to produce 5 million tonnes of LNG gas. Its goal is to deliver supplies to the Asia-Pacific region, in particular to Japan and South Korea.

Gazprom is pushing LNG as in-house transport fuels. Russia's gas giant signed agreements with Avtodor, the Russian highways state company, and Gazprom Gazomotornoye Toplivo, a Gazprom subsidiary, to grow a network of LNG and compressed natural gas filling stations for locomotives and trucks. Expanding its reach, Gazprom also launched small-scale LNG projects abroad in places like Vietnam, Belarus, Ghana and Bolivia.





### Bypassing Western sanctions

The impact of Western sanctions on Russia's LNG development proved to be rather limited. Despite the restrictions on financial borrowing and export of Western technologies (e.g. drilling and hydraulic fracturing), Russia managed to keep its LNG projects afloat. Loopholes in the sanctions regime and new partners allowed Russia to bypass legal implications and to find new funding.

While both oil and gas exploration projects were prohibited under US sanctions, the EU sanctions exempted gas projects. This allowed European investors to further participate in the development of Russia's LNG gas plants. Both French Total and Dutch Shell preserved their 20% and 27% shares in the Yamal and Sakhalin projects, respectively.

Despite Western restrictions on capital, Russian energy companies still manage to attract European investments.

Italy's Saipem is set to be a subcontractor for Arctic LNG 2, Novatek's second gas plant on the Kara Sea. In 2015, Shell agreed to invest in the expansion of Gazprom's Sakhalin II, while in 2017, a Dutch company set up a joint venture with Gazprom to design and construct the Baltic LNG project in the Leningrad Region. However, Rosneft's Far East and Gazprom's Vladivostok LNG projects were delayed until 2020 due to a lack of funds and low fuel prices. Partnered with ExxonMobil in 2014, the Far East project was stalled due to looming Western sanctions over the Ukraine crisis. Recently, Rosneft announced that it may build the LNG plant using its own resources exclusively.

Russia's pivot to Asia and the Middle East lessened the country's dependence on Western lending. In March 2017, having difficulties raising funds from Western banks, Novatek sold a 9.9% stake to China's Silk Road Fund. Similarly, Rosneft turned to Chinese investors after Glencore and the Qatar Investment Authority cut their stakes. A 14% stake of Rosneft was bought by CEFC, China's Energy conglomerate, for \$9 billion. Recently, investors from Japan and the Middle East showed interest in Gazprom's Baltic and Novatek's Arctic 2 LNG projects.

#### Making strides in the LNG market

With the latest reports predicting 13% growth in the LNG market by 2025 and an overall 53% share in long-distance gas trade by 2040, Russia is under further pressure to develop its LNG projects on time. Currently, Russia exports 10.8 million tonnes and has a 4.2% market share.

Following the completion of the Arctic 2 LNG project, the country might challenge the dominance of Qatar, which currently occupies 30% of the market. By building the second gas plant on the Gydan peninsula, Russia could produce up to 70 million tonnes of LNG annually, just below Qatar's 77 million. The construction of Arctic 2 is slated to commence in 2019, with the first shipments due on the market in 2023.

Challenging Qatar's dominance in the LNG market would make Russia not only the world's largest exporter of conventional natural gas, but also of liquefied gas. The conditions for that are favourable. With funding from China and Saudi Arabia, Russia can bypass Western restrictions on capital. Russia's LNG exploration sites are strategically close to the Asian market. Located in the Far East, LNG would be easy to transport via sea to Japan and South Korea, the world's largest LNG importers.

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## **Total to buy 10% stake in Russian LNG project**

France's Total has agreed to take a 10 per cent stake in Arctic LNG 2, a liquefied natural gas project being developed by Russia's Novatek in the Siberian arctic.

Total did not specify the financial details, but the acquisition values the project at \$25.5bn, Novatek's chief executive Leonid Mikhelson said. He added that he was in talks with other companies to acquire other stakes and that Novatek intended to hold 60 per cent of the project.

Total, which already owns 19 per cent of Novatek and has a 20 per cent stake in Yamal LNG, a similar project launched this year, has an option to increase its Arctic LNG 2 stake to 15 per cent. The deal was signed during French president Emmanuel Macron's visit to Russia for talks with Vladimir Putin.

"Total is delighted to be part of this new world class LNG project alongside its partner Novatek, leveraging the positive experience acquired in the successful Yamal LNG project. This project fits into our strategic partnership with Novatek and

also with our sustained commitment to contribute to developing the vast gas resources in Russia's far north which will primarily be destined for the strongly growing Asian market," said Patrick Pouyanné, chairman and chief executive of Total.

"Arctic LNG 2 will contribute to our strategy of growth in LNG by developing competitive projects based on giant low costs resources."

When up and running, LNG 2 will have a production capacity of approximately 19.8m tons per year. Total said the final investment decision is expected in 2019, with plans to start up the first train by the end of 2023.

Mr Mikhelson said: "We are talking to a number of companies [about selling other stakes in the project]. Not empty chit-chat but serious discussions."

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## **A Trump Darling, Gas Exports, Set to Gain as Iran Deal Dies**



Another darling of the Trump administration is poised to gain from the Iran deal breakup as oil surges: Natural gas exports.

With the move to curb Iran's oil output encouraging more shale drilling, prices for natural gas produced alongside crude in West Texas could crater, falling to zero some days, according to Tudor Pickering Holt & Co. Already, the gas sold at West Texas' Waha hub is down 51 percent for the year.

That's bad for producers selling the fuel in the U.S., but good for companies that export it in tankers. As the market for liquefied natural gas grows in Asia, being able to source gas at its cheapest should give U.S. exports a leg up.

From Secretary of Commerce Wilbur Ross to the President himself, the White House has long sung the praises of increasing American LNG exports to help trim the trade deficit with Asian countries. Meanwhile, the Permian boom has filled pipelines to capacity, trapping gas in the region and making prices there the cheapest of any major U.S. shale play.

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# Rethink Gas for the Future EU



*The degree to which Europe increases its use of gas will depend on the regulations put in place, on the efficiency of the emissions trading system and on the ability to prove the benefits brought by its use*

This year Europe is facing a real winter, and many European households keep themselves warm with natural gas. Gas consumption in power generation is also growing and is a strong backup for the increasing levels of intermittent renewable energy. All told, more than a fifth of energy consumption in the EU comes from the use of gas. According to the Agency for the Cooperation of Energy Regulators (ACER) gas demand in 2016 rose by 7 percent compared to 2015, reaching 4962 TWh (terawatt hours). Gas is a cost-effective part of Europe's energy mix, as the global market is well supplied and prices remain competitive with other fuels. The International Energy Agency (IEA) in its "Global Gas Security Review 2017" notes that natural gas is the cleanest and least carbon intensive fossil fuel and that it is expected to play a key role in the transition to a cleaner and more flexible energy system. In its World Energy Outlook's central scenario, the

IEA anticipates that natural gas will be the only fossil fuel that will maintain its share in the energy mix in the coming decades. The EU is an integral part of an increasingly globally interconnected gas market, but its own production, while significant, in 2016 supplied only 27 percent of demand, with a resultant huge reliance on both pipeline and LNG importation.

### **An efficient and liberalized interconnection**

A clear asset of the European gas industry is its infrastructure network. Gas pipelines, distribution networks, LNG import terminals and underground storage provides necessary flexibility to the European energy system's variable seasonal demand. After 30 years of progressive liberalization an interconnected gas market has emerged and continues to develop in the EU. A good indicator of this is the fact that 75 percent of its gas is priced to within EUR1/MWh of the gas trading hub in the Netherlands. Also significant gas flow fluctuations are accommodated smoothly, and that results in market participants being flexible in their response to changing market fundamentals. Developments in the LNG market, such as new supply routes like the Southern Corridor, additional interconnections in the internal energy market and new focused legislation have fundamentally improved the EU's supply security. The fact that Russia has increased its market share to 34 percent doesn't create worries, because this increase is happening in the competitive environment created by the third energy market legislation package. New gas discoveries close to the EU's borders in the eastern part of Mediterranean and the final investment decisions made for the production from these sites provide an additional guarantee for a secure gas supply. Still the question is asked whether gas is a transition or destination fuel? Some voices are calling for an urgent phase-out of all fossil fuels, including natural gas.

On the positive side, while methane can leak if not properly

handled from well to wheel, natural gas is the fossil fuel that emits the least greenhouse gases—about half the CO<sub>2</sub> produced by burning coal if properly produced, transported and used. Gas is also well placed to supply back-up to intermittent renewable electricity because of its flexibility and short start-up times. Because of these qualities gas is sometimes referred to as a renewables best friend.

Nevertheless, on the negative side, natural gas is a fossil fuel that emits substantial amounts of greenhouse gases—with the risk that venting, flaring and leaking can more than offset gas advantages. According to Climate Action Tracker, full lifecycle emissions, including the fuel chain and also the manufacturing of energy conversion technology, implies emissions in the range of 410-650 g CO<sub>2</sub> eq/kWh for combined cycle plants as the most effective combustion plants.

How to look at this contradiction? From one side, the use of gas leads to good public acceptance, a vibrant internal market and extensive infrastructure, all of which could provide for Europe's future energy system. From the other side gas leads to greenhouse gas emissions that aren't consistent with the fight against climate change. Industry wants policymakers to avoid picking winners in the fuel mix and instead focus on setting frameworks for fuels to compete on the basis of the three objectives: sustainability, affordability and security of supply.

### **Renewables increasingly in focus**

Today the EU is clearly focused on the promotion of renewable energy. In 2015, renewable energy contributed 17 percent to total final energy consumption. There are indications that the stated objective of 20 percent of renewable energy in the EU's energy mix will be reached by 2020. The European Commission in the "Clean energy for all Europeans" legislative package proposes an objective of 27 percent of the renewable energy share in total final energy consumption by 2030. The International Renewable Energy Agency (IRENA) in February 2018



published a study “Renewable energy prospects for the European Union.” It concludes that the EU could double the share of the renewable energy in the energy mix from 17 percent in 2015 to 34 percent in 2030 with existing technologies if the right enabling framework is established. The study emphasizes that all EU countries have the cost-effective potential to use more renewables and that to achieve this goal a yearly investment of USD 73 billion would be required. But even using all this renewable potential a majority of the energy supply in 2030 will be provided by fossil fuels. IRENA’s model shows that gas will be the most used fossil fuel in 2030, but the presence of coal will still be strong.

The EU, which accounts for about 10 percent of global GHG emissions, is firmly committed to fighting climate change under an ambitious reading and implementation of the Paris Agreement. The target is to cut the EU’s emissions by 80-95 percent by 2050, and that change requires that the EU’s electricity, transport and heating and cooling sectors be carbon free by that time. Achieving such objectives while reusing part of the existing infrastructures and changing much, but not all, of the existing energy system suggests that the strategy has to mobilize all existing assets in the most efficient way possible.

### **Blue gold as the route to low carbon transition...**

Gas offers substantial potential to replace higher carbon emitting fuels to work in partnership with renewables to satisfy energy demand and flexibility needs. Increased electrification will drive some change in the role of gas in the energy mix and increased coordination between power and gas will be required to ensure the most efficient interaction to deliver baseload and peak energy demand.

For a successful future of gas use it is important that carbon pricing and trading are put on the right track. The revision of the EU Emission Trading System (ETS) for the period after 2020 anticipates that sectors covered by the ETS have to

reduce their emissions by 43 percent compared to 2005. To this end the overall number of emission allowances will decline at an annual rate of 2.2 percent from 2021 onwards. This is a considerable increase from the existing phase, where an annual decline rate is 1.74 percent. We could expect a considerable increase in carbon prices, accelerating departure of coal use in the EU. Also, for gas as a fossil fuel carbon capture, usage and storage will be important. Demonstrating that all of this could be economically implemented and supported by an appropriate regulatory framework and favorable public opinion is crucial for the long-term future of natural gas use.

An interesting and promising avenue for the future of gas is decarbonization by increased use of renewable (green) gas. Renewable gas—biomethane and hydrogen notably—can be transported in existing gas pipes, even if with some adaptations. This would be at a fraction of the cost to carry the same amount of energy in the form of electrons, a ratio as much as one to ten in favor of gas. There is also clear political support for renewable gas. A good example is the recent announcement by France's President Emmanuel Macron to support green gas production with a fund of 100 million euros. Macron has also promised to remove some administrative bottlenecks related to this project. Actually France's energy transition law has a very ambitious target to provide 30 TWh from renewable gas in final energy consumption by 2030. Some experts believe that with appropriate support, the ambition could be even greater.

The EU has some experience in producing and using biomethane and hydrogen, but it is fair to say that there is a long way to go before renewable gas becomes a significant part of the energy mix, as volumes of biogas and biomethane have been very modest. In 2015 EU member countries—most notably the northwestern countries—produced biogas equivalent to less than 20 bcm of natural gas, thereby covering a mere 4 percent of total EU demand for gas. Only in Germany, which accounts for

half of total EU production, can this be considered a significant resource at this stage. For reasons of cost and technical constraints, only a small part of the gas thereby produced has been injected into the natural gas grid, most of it being used to produce heat and power locally. To understand how ambitious objectives could be in the years to come, one must consider a variety of bottlenecks in the production, transport, storage and application of renewable gas.

### **... And the near future is in biogas**

To start with what already works, sufficient knowledge and techniques are presently available to produce biogas from landfills and sewage mostly using anaerobic digestion technology. CO<sub>2</sub> needs to be removed from produced biogas and other purification must be carried out to get biomethane that meets the necessary standards to be injected into the natural gas grid. Such upgrading is, of course, costlier if applied to the relatively small volumes available from given farm or landfill. The gasification of woody biomass could produce higher volumes and help scale up installations, but so far such technology is still used only in pilot projects.

A lot of expectations are put on producing renewable gas from renewable electricity. The surplus of intermittent solar and/or wind energy could be stored in the form of hydrogen by running at least part of such surplus through electrolyzers. Today, such a surplus translates into negative prices in the wholesale power market. Doing so on a large scale is being considered in connection with large North Sea offshore-wind projects. Breakthroughs are still needed, however, in power-to-gas technologies, as electrolyzers able to work intermittently are presently costlier to build and operate. The significant capital costs also need to be spread over enough hours and days of operation to make the per gas-unit cost acceptable.

Renewable gas could be transported by trucks, dedicated pipelines and the EU-wide natural gas grid. It would be

especially convenient to use the existing grid for transporting renewable gas. Hydrogen can be injected into the natural gas grid, but it influences combustion behavior and materials integrity, which sets limits. Also, a higher flow rate is required to meet demand, because hydrogen's volumetric energy density is substantially lower than natural gas. As for biomethane, its injection is less constrained than that of hydrogen, provided that gas quality checks have been carried out. Today each EU country has established its own limitations, and regulations related to injections of hydrogen can differ widely even between neighboring countries. Challenges also exist when one envisions the storage of significant volumes of renewable gas, notably hydrogen. Methanization can then appear as an attractive alternative, as hydrogen can also be turned into methane when combined with CO<sub>2</sub>, and this does away with technical constraints regarding transport and use. The challenge then arises as to which sources of CO<sub>2</sub> would be acceptable and/or preferable to produce biomethane.

Biomethane could substitute natural gas in almost every sector and application. In industry, renewable gas could serve both as an energy source and a feedstock. It could be used for residential sector heating. By contrast, hydrogen today is used mostly in industry. A hydrogen-driven economy will therefore require a more profound transformation. In mobility the potential use of renewable gas is substantial with the exception of air transport. While some countries have developed very significant fleets of gas-powered vehicles, in many others use of renewable gas in transport is hampered by the lack of refueling infrastructure. The interesting breakthrough for the use of renewable gas could come with decreasing costs for hydrogen fuel cells vehicles.

The decarbonization of the gas sector could develop step by step. In this respect certificates, whether Guarantee of Origin (GoOs) certificates for green gases or CO<sub>2</sub> certificates

used as offsets could play a role in facilitating acceptance and lowering costs. Altogether, it is correct to say that measures to promote renewable gas are relevant to all elements of the gas value chain.

### **A key role in Europe's energy economy**

Gas—both natural and renewable—clearly has a place in Europe's future energy economy. The part of it in the EU's energy mix will depend on political frameworks put in place, from the efficiency of an improved emission trading system and from the gas industry demonstrating the benefits of gas use in decarbonized energy system. It is difficult to speculate about the part of gas in the EU's energy mix by 2050. We could try to extrapolate the results of the aforementioned study by IRENA: "Renewable energy prospects in the European Union." At the level of 27 percent in the EU's energy mix by 2030, fossil fuels will have a share of 62 percent. The part of natural gas from this share is roughly 40 percent and that would mean 25 percent for natural gas in the energy mix. Renewable gas could grow in the period to 2030 to 8-12 percent from the current 4 percent level of natural gas consumption. With the growth of the renewable component of the energy mix, fossil fuels will decline, but the part of natural gas in the fossil fuels is increasing. All this could bring an increased share of gas in the EU's energy mix.

### ***Andris Piebalgs***

*Politician and diplomat, he is a councilor of the President of Latvia and he was European Commissioner for Energy (Barroso I) and for Development (Barroso II). He was also a minister of Finance and Public Education of Latvia, in addition Chairman of the commission for the budget and finances of Parliament. Finally, he was a Latvian ambassador at the EU.*

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# Gulf crisis and gas: Why Qatar is boosting output



Qatar may be under economic siege but it pulled an ace from up its sleeve on 4 July by announcing that it will bolster liquid natural gas production by some 30 percent.

The move will secure Doha's position for years to come as the world's top exporter of LNG.

Naser Tamimi, a Qatari energy analyst, told MEE: "It is a very significant announcement as it will put huge pressure on the LNG projects underway in countries with higher extraction costs. It is also signals that Qatar is fighting for market share."

The announcement is also seen as a shot across the bows of Saudi Arabia and the UAE, the leads in the embargo, that Qatar is not buckling under the pressure.

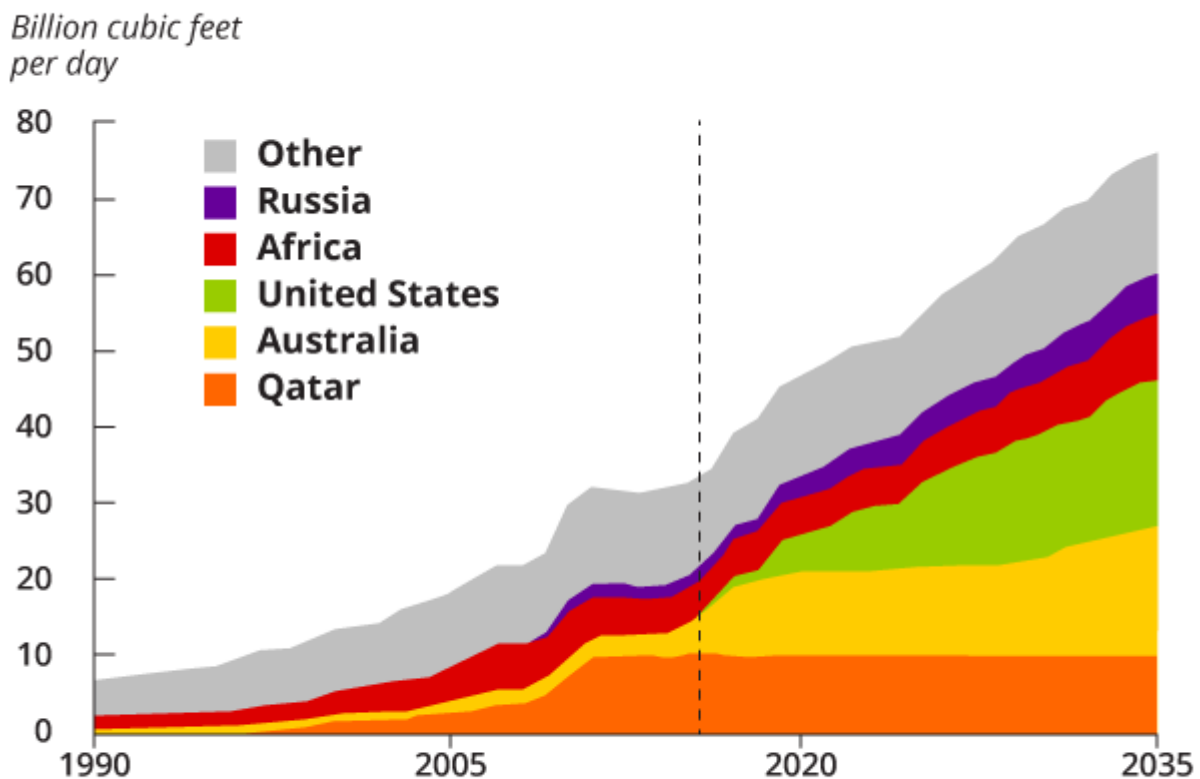
Roudi Baroudi, the chief executive of Energy & Environment Holding, an independent consultancy in Doha, said: "The bottom line is this was a business decision. If politics had an impact, it was in the timing: it's possible that the move was accelerated in order to signal the country's resolve and ensure that if the siege persists, more revenues will be available to help soften the blow."

# The Australia-US-Qatar tussle

Qatar had indicated earlier this year that it would increase LNG output by 15 million tonnes (MT) but it has more than doubled that figure to 33 MT. It brings annual production up from the current world-record of 77 MT to 100 MT.

Analysts have generally downplayed the timing of the announcement, which coincides with Doha rejecting the demands of Riyadh and its allies.

## Liquid natural gas: Top suppliers 1990 -2035



Source: BP/2017 Energy Outlook



[middleeasteye.net](http://middleeasteye.net)

But the move clearly shows that, at a global level, Qatar wields power when it comes to LNG. Claudio Steuer, director of SyEnergy, a UK-based energy consultancy focused on natural gas and LNG value chains, said: "Qatar's timing is impeccable to exploit the weakness in the current US LNG business model, and pre-empt competition from Russia, Iran, East Africa and East

Mediterranean.”

Australia is scheduled to become the world's largest LNG supplier during the next two years, but it's anticipated that Qatar will then be back on top by 2022 once new production from its huge offshore North Field begins producing.

The US is also increasing its output and expected to become the world's third-largest LNG exporter by 2020, now that LNG export terminals have come online and the Trump administration is pushing energy exports.

Qatar's increase will ward off such competition, primarily due to lower extraction costs in the North Field and at its liquefaction facilities, especially when compared with fracking in the US.

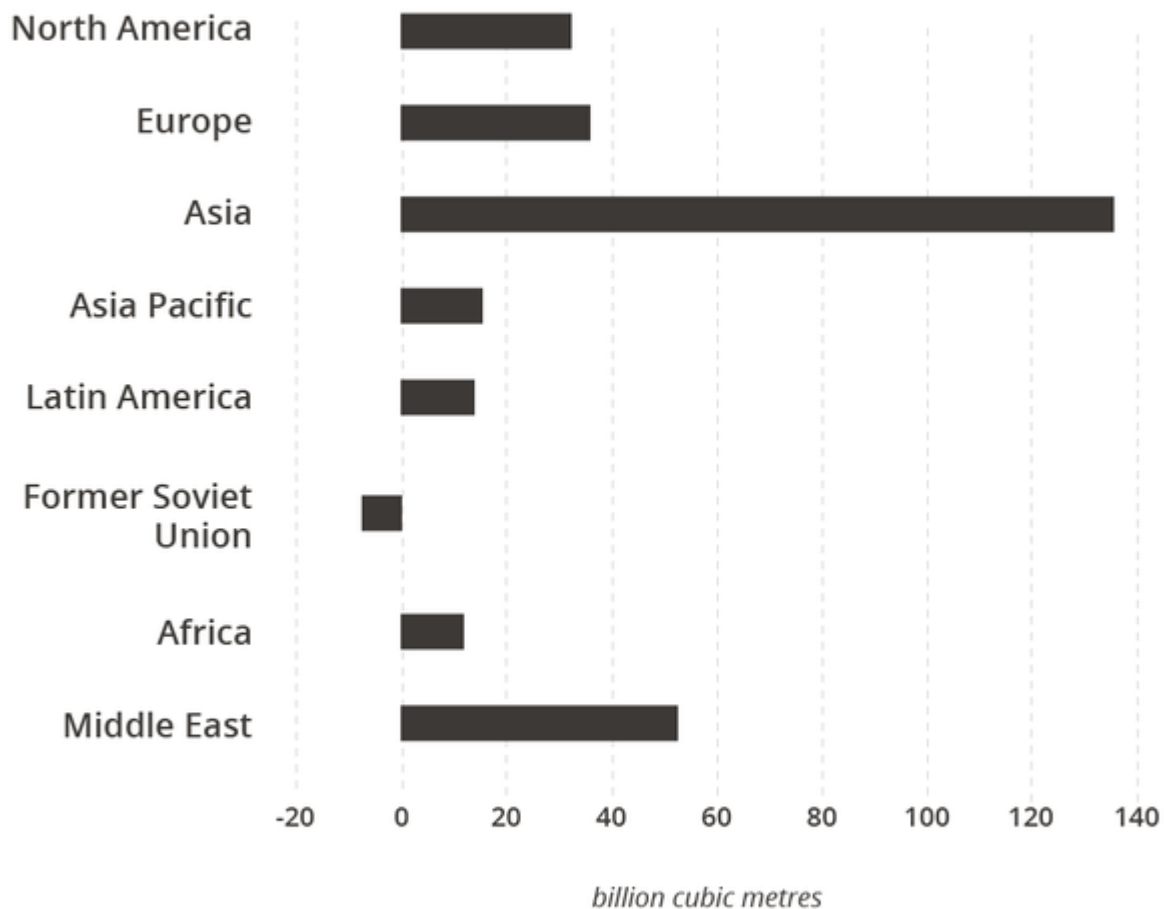
This will enable Doha to gain market share in countries with rising LNG demand, particularly in Asia, currently the destination for two-thirds of its LNG exports.

“Despite the strong US propaganda, the current US LNG projects costs and business model are not competitive in the growing southeast Asian markets,” said Steuer.

He said that as things stand, the high costs of American LNG extraction only becomes competitive at oil prices of more than \$60 to \$70 a barrel, which will limit the scale of the expected surge of LNG supplies from the US. By way of comparison, oil prices have ranged from \$40 to \$50 a barrel during the past year.



# Change in worldwide demand, 2015 – 2020



Source: Nexant



[middleeasteye.net](http://middleeasteye.net)

Trevor Sikorski, head of gas and carbon at Energy Aspects, says that US gas producers will need around \$8 to \$8.50 per million British Thermal Unit (BTU) – a standard unit used for gas – to cover their capital expenditure costs and enjoy a return on their investment.

The Qataris, he said, will want a similar figure to cover investment in their new liquefaction trains – the part of an LNG plant which reduces the volume of the gas by chilling it to liquid form.

“But US costs are a dollar or two higher than what Qatar pays. If it’s a race to the bottom on prices, the US will lose.”

## **The risks ahead**

But Qatar does face one risk: finding long-term buyers of its LNG to secure funding to underwrite the expansion.

Previous LNG projects were greenlit on the expectation of gas prices being double the current \$5 to \$6 per million BTU. Now, they’re struggling.

Qatar has managed to launch out projects, like the RasGas Train 6 – one of 13 liquefaction trains operated by state-owned RasGas and Qatargas – without long-term buyers to guarantee capital expenditures, which eases financing conditions.

Instead it operated on a “merchant basis” that reassures financiers with forecasts of rising demand.

That gamble paid off for Qatar in 2009, when RasGas 6 came online. In 2011 it was given a further boost when it used spare capacity to meet a sudden demand in LNG from Japan after the Fukushima nuclear disaster.

“They’ve taken that risk before and it worked well. If anyone can take that risk it is the Qataris,” said Sikorski.

Riyadh and Abu Dhabi will not be able to use leverage with international oil companies (IOCs) to prevent investment in Qatar. Majors like Royal Dutch Shell, Total and ExxonMobil – already heavily involved in Qatar – have already signalled their neutrality in the GCC crisis.

“I do not see any major show stoppers for Qatar in wanting to ramp up production,” said Steuer, “as all major oil and gas engineering and service providers would welcome the opportunity to secure new business in Qatar.”

The LNG expansion strengthens Qatar's ties with major oil companies while signalling to buyers that Doha can keep taps turned on, despite the crisis.

"Above all else, Qatar Petroleum must be sure it can keep its customers supplied," said Baroudi. "And they're not taking that step alone: they have partnered with some genuine heavyweights of the industry."

## **A blow to Saudi Arabia?**

Opinion is divided as to whether Qatar's announcement raises the regional stakes in the global shift away from oil to gas.

Saudi Arabia and the Emirates, which are not gas exporters, will struggle to match Doha's output.

Shaybah, base for Saudi Aramco's LNG plant and oil production in Saudi Arabia's Empty Quarter in 2016 (AFP)

LNG is considered a cleaner fuel than oil. Major economies such as China, India and South Korea have been moving from coal power plants to gas to reduce pollution.

Steuer said: "As gas is the only fossil fuel with sustainable long-term prospects for the next 25 years, this only reinforces the current tensions involving Saudi Arabia and Qatar.

"As oil demand and prices decline, the economic power is gradually shifting away from oil-rich nations to gas and LNG rich nations. This game changes the balance of political and economic power in the Middle East."

Oil prices are key to balancing the budgets of Saudi Arabia and the UAE. Each needs target prices of \$90 and \$60 per barrel respectively in 2017 to balance the books, according to the Institute of International Finance.

Asia is considered the battleground between Qatar and Saudi Arabia for energy exports.

“I think the Saudis will lose more than the Qataris, as the Qataris depend on gas and condensate more than oil, which is not their main export,” said Tamimi. Oil accounts for around 50 percent of Saudi Arabia’s GDP and 85 percent of its export earnings, according to OPEC.

In December 2016, Russia overtook Saudi Arabia as the world’s largest oil producer. Moscow has also been expanding its market share in China, the world’s largest oil importer and third-biggest LNG importer.

“Saudi Arabia used to have 20 percent share of the Chinese market, in 2011, but in the first five months of 2017 it’s down to 11 percent,” said Tamimi. “It will be difficult or maybe impossible to regain that.”

But while Qatar’s LNG increase is equivalent to around 10 percent of global LNG capacity, Sikorski thinks it is “a bit of a stretch” to say that gas will replace oil dependency.

“To me this is a case of, ‘Look GCC, we [Qatar] are not dependent on you to make our economy work, we can expand our gas exports if you try to squeeze us, and we will continue to make a lot of money on that.’ That was the message to me, rather than saying LNG is the future and oil is dead.”



Paul Cochrane

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# Gas and the Gulf crisis: How Qatar could gain the upper hand



Asian markets, military allies and a crucial pipeline all offer Doha leverage against its adversaries amid the current crisis

The blockade of Qatar, led by Saudi Arabia and the United Arab Emirates, has already had an economic impact.

Qatar, the world's second largest producer of helium, has stopped production at its two plants as it cannot export gas by land. Qatar Airways can no longer fly to 18 destinations. Qatari banks are feeling the pinch, particularly the Qatar

National Bank (QNB), the region's largest by assets, and Doha Bank: both have extensive networks across countries which are members of the Gulf Cooperation Council (GCC).

Ratings agency Standard & Poor's (S&P) downgraded Qatar's credit rating from AA to A- on 8 June. It could put it on credit watch negative, a sign that the crisis could impact investment and economic growth. Moody's followed suit, placing Qatar's AA long-term foreign and local currency Issuer Default Ratings (IDRs) on rating watch negative.

Doha is unlikely to buckle soon. It has plenty of financial muscle, not least in its sovereign wealth fund, the Qatar Investment Authority (QIA), which holds an estimated \$213.7 billion, according to the Institute of International Finance. The seed capital for that fund comes from Qatar's oil and gas exports.

Energy receipts account for half of Qatar's GDP, 85 percent of its export earnings and 70 percent of its government revenue. The crisis may affect the emirate's medium- to long-term energy contracts, as buyers diversify their imports to be less reliant on Qatari gas.

Roudi Baroudi is CEO of Energy & Environment Holding (EEH), an independent consultancy (the principal holder in EEH is Sheikh Jabor bin Yusef bin Jassim al-Thani, director general of the General Secretariat for Development Planning). He says that when it comes to oil, the advantage is with the Riyadh-led group: Saudi Arabia recently overtook Russia as the world's biggest producer; the UAE is also in the top 10.

"When it comes to gas, however, Qatar holds more and better cards," Baroudi adds.

Doha can use energy as a diplomatic tool to its advantage: how it does this will be crucial as to its attempts to ride out the current storm.

How will Qatar ship its exports?

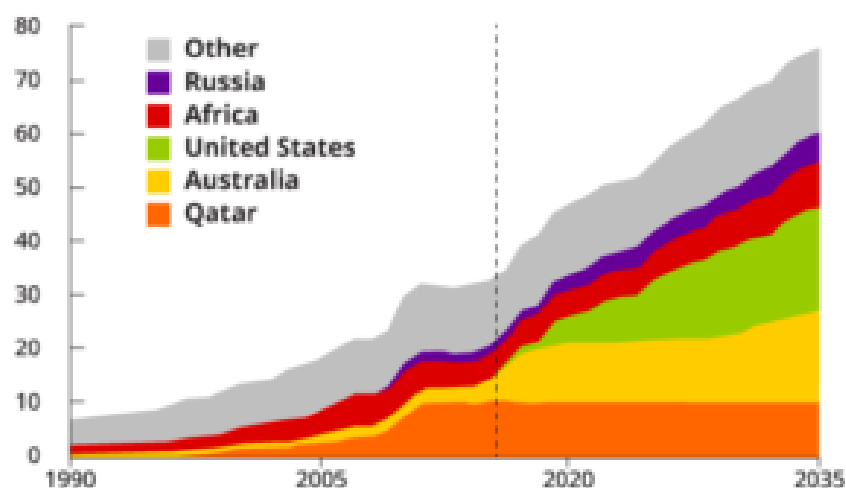
Qatar is the world's largest liquefied natural gas (LNG) exporter, accounting for nearly one-third of global trade, at 77.8 million tonnes (MT) in 2016, according to the International Gas Union. So far there have been no interruptions to Qatari extraction or exports via the 60-plus LNG carriers that belong to the Qatar Gas Transport Company (Nakilat in Arabic).

But as a result of the crisis, state-owned firms Nakilat, Qatar Petroleum and Industries Qatar have all been downgraded.

Much of Qatar's liquefied natural gas is shipped by tanker. While there have been no reports of oil shipments being interrupted, there is concern about Qatari routes to Asia, the key buyer for the bulk of its oil as well as much of the Gulf's exports.

#### Liquid natural gas: Top suppliers 1990 -2035

*Billion cubic feet  
per day*



Source: BP 2017 Energy Outlook

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Historically, Asian buyers demand a mixture of crude oil from the Gulf: usually the tanker would depart the emirate with Qatari oil, then stop to refuel and add Saudi, Emirati and Omani grade crude, usually at UAE ports.

Karim Nassif, associate director at Standard & Poor's in Dubai, says: "If they are not allowed to stop and refuel as some reports suggest, then this could affect the buyers who may be anticipating a variety of crude grades."

The Daily Telegraph reported that two LNG ships bound for the UK were re-routed due to the crisis, but Baroudi says this is not an issue. "If the reports are true, it's just a by-product of how international companies are coping with the Saudi-led embargo by playing it safe."

"Say Company A was planning to deliver LNG from Qatar to the UAE, but the latter now bans Qatari ships from docking and unloading. Company A's response may well be to send an LNG carrier based in a third country to make the delivery instead, then reroute one or more others to make sure all customers are supplied."

Naser Tamimi, an independent Qatari energy expert, says that the same scenario applies to the possibility of Egypt stopping Qatari tankers using the Suez Canal; or raising fees for Qatari vessels. "The Qataris could get around it through tankers registered elsewhere, like the Marshall Islands," says Baroudi, "or divert some of their cargo going to Europe via South Africa."

He says that such moves could add about half a dollar to the cost of each British Thermal Unit (BTU) – but that the Qataris could cope with that, even if they had to absorb the cost instead of the consumer.

Around 70 percent of Qatar's LNG exports are under long-term contracts – typically of around 15 years – so production and payments are secure. The remaining exports are on short-term or spot prices that are dictated by the international markets.

Sources within the shipping industry speculate that some deals may have been called off or delayed: there have been reports from insurance and petrochemical companies that 17 LNG vessels



are now moored off Qatar's Ras Laffan LNG port – a much higher number than the usual six or seven vessels.

Will Asian markets look elsewhere?

The bulk of Qatar's LNG is destined for east Asia – and analysts say that that is unlikely to end soon.

Theodore Karasik, senior adviser at Washington-based consultancy Gulf State Analytics, says: "Qatari LNG is not affected by the sanctions and blockades, simply because GCC states require good relations with east Asian partners."

He said that if Saudi Arabia and UAE were to interrupt LNG exports to Asia, then those customers may not want to invest in the programmes intended to transform the economies of the UAE or Saudi Arabia, such as the 2030 Visions strategies.

His opinion is echoed by Baroudi. "The Asian markets aren't going anywhere. Asian countries need – and know they need – long-term relations with stable producers, and by this measure Qatar is in a class by itself. The same applies for consumer nations elsewhere, so even if the crisis were to escalate, and right now it appears to be settling down, then any interruption would be a short-term phenomenon.

"Qatari LNG simply cannot be replaced. Australia [LNG] will begin to have an impact on international markets by the end of the decade, but that just means an added degree of market competition, not replacement."

But Tamimi thinks the crisis could prompt Asian buyers to diversify their energy portfolios and lessen their dependency on Qatari gas. "They are under pressure now, and in a global context with an LNG glut," he says.

"All Qatar customers are asking for better deals, and Qatar's market share is decreasing compared to 2013 because of competition from Australia, Indonesia and also Malaysia. The

crisis is a reminder to everyone in Asia that the Middle East is not stable, that everything could change within days.”

Will Qatar shut down a key pipeline?

One scenario that would deepen the crisis still further is a lockdown of the Dolphin gas pipeline, which runs between Qatar and some of its fiercest critics.

While two-thirds of Qatari LNG is bound for Asia and Europe, around 10 percent is destined for the Middle East. Two export markets, Kuwait and Turkey, are secure due to better political relations.

But the other two – Egypt and the UAE – are among those nations currently blockading Qatar. If Riyadh and the UAE raise the ante, then it might raise questions about the pipeline’s future.

Egypt gets two-thirds of its gas needs, some 4.4 MT in 2016, from Qatar on short-term and spot prices. Cairo is firmly in the Saudi camp – but has not halted gas shipments.

Baroudi says: “Since the crisis erupted, Egypt has continued to accept shipments of Qatari gas on vessels flying other flags. The 300,000 Egyptians who live and work in Qatar have carried on as before.

“Neither country wants to burn its bridges for no good reason,” he says, “especially Egypt, which only recently staved off bankruptcy because of Qatari financial largesse,” a reference to the \$6 billion Qatar provided in the wake of the 2011 Egyptian uprising.

But it is the Dolphin pipeline, which carries Qatari gas to the UAE and Oman, that is the most contentious issue. The UAE imports 17.7 billion cubic metres (BCM) of natural gas from Qatar, according to the BP Statistical Review 2016, equivalent to more than a quarter of the UAE’s gas supply.

Nassif says: "The Qataris have indicated that the supply of gas through Dolphin to the UAE and Oman will continue. We have no concerns at present of any armageddon scenario of Qatar changing its stance on this."

Either side would lose significantly if the gas was stopped, especially during the summer when power generation is at its peak to keep the air conditioning on. Halting supply would be the Gulf equivalent of Russia turning off the gas to Ukraine in January 2009.

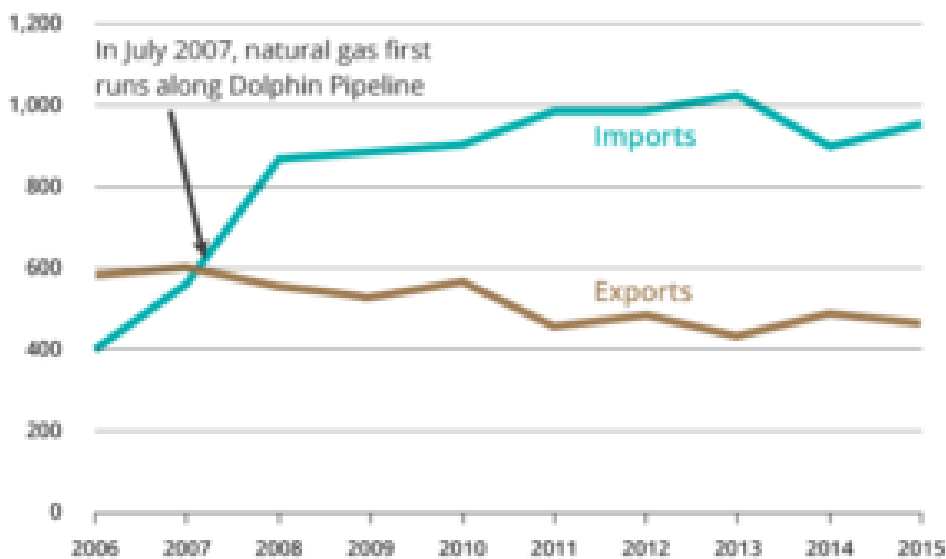
"The UAE would immediately face extensive blackouts without it," says Baroudi. "They would be shooting themselves in the foot if they were to interfere with gas shipments, and Qatar views the pipeline as a permanent fixture, not something to be manipulated for the sake of short-term political gain.

"As a result, neither side has any interest in changing the status quo – and neither has communicated any consideration of such a step."

Analysts say that both sides have contingency plans should the Dolphin pipeline shut down – but, says Tamimi, the UAE will find it hard to compensate for the loss of Qatari gas.

## United Arab Emirates natural gas imports and exports

Billion cubic feet



Source: OPEC Annual Statistics Bulletin 2016

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“They’ll have to import LNG as no one can send it by pipeline. That will cost three times the price they’re getting from the Qataris. There is no official price but it is estimated at \$1.6 to \$1.7 per BTU, so around \$1.1 billion [in total].

“If the UAE wants to stop the Qatari imports, they’d have to pay three times that amount at the current price as LNG is linked to the price of oil.”

A stoppage on either side would also violate bilateral agreements. “If the UAE violates it, the Qataris can sue them and vice versa. If the Qataris do it, it would also send a bad message to their customers, to use gas for political reasons.”

Such a move by Qatar would also undermine its strategy of saying it has been unfairly treated by the GCC and is abiding commercial contracts – unlike the UAE and Saudi Arabia, as Qatar Airways CEO Akbar Al-Baker told the press.

Will there be a land grab by Saudi?

Analysts have not ruled out further sanctions by the UAE and

Saudi amid the current crisis. Any move on blocking energy exports, including the Dolphin pipeline, would be viewed as a serious escalation by Doha as it would cripple its economy.

One hypothetical scenario being actively debated at a political level, according to analysts, is an all-encompassing blockade of Qatar as part of Riyadh's and the UAE's plans to re-organise the Gulf Cooperation Council – and, unless there is a change of regime in Doha, kick out Qatar (let's call it a "Qatexit").

An extension of this scenario is an outright land grab by Saudi Arabia of Qatar's energy assets. These would then fund Deputy Crown Prince Mohammed bin Salman's Vision 2030 strategy to diversify the kingdom's economy.

Karasik says: "Arguably the national transformation plan and Vision 2030 may not be going so well. In addition the (\$2 trillion) Saudi Aramco IPO may not achieve its fully stated value. If this is the case, then Saudi is going to need an injection of wealth and will have to do it fast.

"In other words, Riyadh may look for a piggy bank to rob."

Such a move by Riyadh would be armageddon for the Qatari royal family. The emir of Qatar would be forced to stand down – as Emirati real estate mogul and media pundit Khalaf al-Habtoor has suggested – or Riyadh could take control of the kingdom.

Baroudi believes that the crisis is settling down and will soon be resolved. Other analysts have pointed to the recent \$12 billion US fighter jet deal with Qatar, indicating that Riyadh and the UAE will not get their way. The Al-Udeid US air base, which is the headquarters of Central Command, covers 20 countries in the region.

Turkish troops, who arrived in Qatar for training exercises this week, could also help turn the heat down, now that the two countries have signed a defence pact. Ankara has the

region's largest standing army, with its presence near the Saudi border (Qatar's only land border) considered a deterrent.

But other analysts see no sign of tension ebbing soon. They flag how the descendants of Ibn Abd al-Wahhab – the founding father of Wahhabism, both Saudi and Qatar's dominant theology – have distanced themselves from the emirate's ruling family, undermining its legitimacy. The rhetoric against Qatar from Riyadh and the UAE continues unabated. Last week, the UAE called on the US to move the Al Udeid air base out of Qatar.

"There are no more black swans in our world," says Karasik. "This idea [of a land grab] is something people are starting to talk about."

The views expressed in this article belong to the author and do not necessarily reflect the editorial policy of Middle East Eye.

***Paul Cochrane***

***Tuesday 20 June 2017 07:49 UTC***

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