

# World electric vehicle fleet to surpass 20 million in June



According to Bloomberg New Energy Finance estimates, the global EV fleet is set to reach 25 million by the end of the year and 20 million as soon as June. This is a huge leap in numbers from the 17,000 EVs on the road in 2010.

The speed of adoption is also running 10 years ahead of schedule. In BP's 2016 report, it estimated that there would be 71 million battery and plug-in hybrid EVs on the road by 2035, but according to Bloomberg, this is now set to be achieved by 2025.

These figures come as part of a consistent pattern of growth: in its 2020 Global EV Outlook report, the International Energy Agency (IAE) showed that between 2018 and 2019 there was an astronomical 40% year-on-year increase in electric car sales.

Even though interest in EVs has been swirling since the early seventies – NASA’s 1971 Luna Rover ran on electricity – it’s only since 2010, when the first commercially available plug-in hybrid went on sale, that EVs have begun to grow in popularity.

This makes BNEF’s 20 million figure even more astonishing. Today there are 23 plug-in electric vehicles and 36 hybrid models available. BNEF also predicted that over the next five years passenger EVs are set to increase from 3.1 million to 14 million.

However, Europe and China are driving a lot of this progress, which slightly skews the reality of the international take-up of EVs. According to Bloomberg, of the EV sales so far, China makes up 46% of total sales, Europe 34% while North America accounts for just 15%.

But with over 1 billion cars in the world, the world’s 20 million electric vehicle fleet is just a drop in the ocean. It means that despite the astonishing increase in sales, more needs to be done to meet the ambitious climate plans that have been set out across the globe over the last year in particular.

In the UK, for example, there is now a target in place to make sure all new heavy goods vehicles are zero-emission by 2040. At COP26 in November 2021, there was also a group commitment laid out to accelerate the transition to 100% zero-emission cars and vans.

“Despite the expected rapid rise in EV sales, most countries are still not on track to bring road transport emissions to zero by mid-century,” said the BNEF report.

Nevertheless, despite further global take-up of EVs being necessary, BNEF projections still look extremely positive. Already, EVs are displacing the demand for 1 million barrels of oil every day. By 2050 this figure is set to rise to as

many as 21 million barrels of oil every day.

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## Is Putin's war driving up commodity prices?



By Daniel Gros/ Florence

- **Understanding why prices are high is essential to devise the right policy response**

Sky-high commodity prices have the world reeling. Inflation has reached 7% in both the United States and in Europe – a level unseen for decades – with European consumers facing losses of purchasing power equivalent to those caused by the oil shocks of the 1970s. The economic recovery from the pandemic is now at risk of stalling, and the spectre of stagflation looms over developed countries from the European Union to Japan.

One might assume that Russian President Vladimir Putin's war

in Ukraine is the primary cause of spiking energy and commodity prices. Russia is, after all, the world's largest exporter of oil and petroleum products, and, together with Ukraine, it accounts for a third of global wheat and barley exports. But there are two compelling reasons to doubt this explanation.

First, the war has not led to large-scale interruptions in the supply of oil, gas, or other important commodities (at least not yet). Of course, the mere expectation in markets that a shortage is imminent can be enough to drive up prices. But such an expectation so far seems to have little basis.

Yes, wheat deliveries from Ukraine have been halted, and this year's harvest is in doubt, because Ukrainian farmers cannot work their fields. But Ukraine produces only about 3% of the world's wheat. Russia, meanwhile, produces 11%, and both production and exports remain uninterrupted. Moreover, while Russia has threatened to cut off gas supplies to "hostile countries" unless they pay in roubles – an ultimatum Europe has so far rejected – there is little indication that Russian oil or other commodities will be withdrawn from the market. For most commodities, the war should not affect supply.

A second reason to doubt that the war is responsible for today's high commodity prices is that most of the price increase happened before the invasion. The International Monetary Fund's commodity-price index remains below its 2008 peak, standing close to levels seen in 2012-13. And spot prices for gas are in line with their "pre-war" level from the end of last year, when few expected a full-scale invasion of Ukraine.

While oil prices have risen since the start of the war, the increase has been a modest 20%. Although natural-gas prices have been attracting more attention, because they directly affect household heating bills, oil prices are much more important for Europe, because the value of its oil imports is traditionally about five times higher.

If the Ukraine war is not to blame for high energy and commodity prices, what is? One contributing factor might be

what economists call the “hog cycle.” The term stems from a phenomenon observed in the Danish hog industry: farmers would rear more animals when prices were high, thereby producing a glut, which reduced prices the following year, causing farmers to rear fewer animals, which then sold for higher prices.

Likewise, when commodity prices are high, there is a larger incentive to invest in exploration and mining. But when they are relatively low – as they have been in recent years – the profitability of such investment declines, leading to reduced production and higher prices in later years. And, indeed, the International Energy Agency has provided powerful evidence that years of under-investment in exploration have reduced production capacity.

The fall in demand in 2020, caused by the Covid-19 recession, masked this development. But when Europe, Asia, and the US began to recover strongly, there was not enough spare capacity to meet rising demand. This put upward pressure on prices throughout 2021.

Another factor contributing to high energy and commodity prices might have been the rise of environmental, social, and governance (ESG) investing, which has increasingly led investors to refuse to finance fossil-fuel exploration and development. They hope that denying the fossil-fuel industry capital will discourage production and spur progress toward a green economy based on carbon neutrality.

This phenomenon has been concentrated in the West. While upstream investment by the major Western oil and gas firms fell by nearly half between 2015 and 2020, such investment remained stable among Middle Eastern producers and rose in China. All of these producers have the same price incentives, but Western firms are the ones that are subject to ESG guidelines.

Understanding why prices are high is essential to devise the right policy response. If the war was responsible for high prices, it would be politically difficult to refuse price caps and generous compensation to help consumers and enterprises cope. Moreover, one could hope that prices would fall when the

war ends.

But if high commodity prices are the result of a hog cycle and ESG pressures, they are sending an appropriate signal to markets; in fact, ESG rules are supposed to lead to higher prices. In this case, the economy needs to adjust to a new level of scarcity – and consumers should not be compensated for their lost purchasing power.

Of course, these explanations are not mutually exclusive; all three factors – the hog cycle, ESG standards, and the war – are probably contributing to higher commodity prices. But price trends before the invasion suggest that the war is a minor factor.

This is not the most politically convenient explanation: if the war is the culprit, it absolves consumers and government of the responsibility to adjust, with the former receiving compensation and the latter running higher fiscal deficits. But it is the more economically sound explanation, and thus the one that should dictate a responsible policy response, despite the pain that adjustment might bring. – Project Syndicate

• *Daniel Gros is a member of the board and a distinguished fellow at the Centre for European Policy Studies.*

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## **US and EU reach LNG supply deal to cut dependence on Russia**



## Bloomberg / Brussels

The US and the European Union will push to boost supplies of liquefied natural gas to European countries by the end of 2022 in a bid to displace Russian gas, a political framework that now leaves companies to sort out the details.

Under the agreement, Europe will get at least 15bn cubic metres of additional LNG supplies by the end of the year, though it's not clear where it will come from. Member states will also work to ensure demand for 50bn cubic metres of American fuel until at least 2030. The aim is to work with international partners to help the continent wean itself off Russian gas, which accounts for about 40% of Europe's needs.

"We're coming together to reduce Europe's dependence on Russian energy," US President Joe Biden said at a joint press conference with European Commission President Ursula von der Leyen, who added that 15bn cubic metres this year "is a big step in that direction."

Europe is trying to diversify its energy sources in a bid to starve Russia of the revenues it needs to fund the war in Ukraine. But that's a mammoth task. Russia ships about 150bn cubic metres of gas to Europe via pipelines every year, and another 14bn to 18bn cubic metres of LNG. That means any

disruptions to flows of pipeline gas from Russia would hard to cope with.

“It’s a start, but relatively small compared to the overall supplies from Russia,” said Jonathan Stern, a research fellow at the Oxford Institute for Energy Studies. “All contributions will be welcome but the task is huge.”

The issue is critical as Russia is the EU’s biggest gas supplier. The EU also relies on the country for the biggest share of its coal and oil imports, and has struggled to shift its energy policy away from Moscow. The details of how the plan works is now in the hands of energy companies, with American LNG shippers and German buyers set to meet next week in Berlin to hash out possible deals.

The US has already been providing more LNG to Europe, with shipments doubling to record 4.4bn cubic metres in January and a similar level in February. Supplying another 15bn cubic metres could be feasible as long as Europe continue to pay a premium to cargoes compared to Asian buyers. A significant boost to global LNG supplies will only come from 2025, when new projects are scheduled to come online.

It’s also unclear whether the supplies would be coming from additional production or from cargoes being redirected from other regions. A senior US administration official who briefed reporters on the plan Friday couldn’t say how much of the additional 15bn cubic metres would be provided by US suppliers versus suppliers in Asia or elsewhere.

Currently, European buyers are competing with Asian countries for the world’s limited supply of LNG cargoes.

Germany also unveiled its own plan to dramatically reduce Russian fossil fuel imports and make the country almost completely independent of Russian gas by the middle of 2024. Critics say the plan is impossible to achieve as Germany is Europe’s biggest buyer of Russian gas.

The US-EU aspirational pact is light on detail. The senior US administration official said permitted US projects can meet the 50bn cubic metres of demand, and added that Europe’s pledge to try to meet that demand might nudge planned US



facilities toward a final investment decision.

The US worked with partners in Asia this winter to secure supply but is now working to build up stocks for next winter. The effort will require a lot of diplomacy, another official told reporters.

The European Union wants to replace this year nearly two-thirds of its total gas imports from Russia after the war waged by President Vladimir Putin forced an unprecedented re-think of the bloc's energy strategy. The new energy strategy, outlined by the European commission earlier this month, aims to replace 101.5bn cubic metres of Russian gas in 2022 by tapping alternative supply sources, building up renewables and boosting energy security. It also seeks to ensure 50bn cubic metres in LNG from new suppliers.

Europe's ability to import more LNG is constrained by the current regassification capacity, number of terminals and interconnectors, according to an EU official, who asked not to be identified commenting on private talks.

Still, the continent is in a much better place than earlier this year, with mild weather and more LNG imports helping bring inventories level back within the 5-year range, after falling to the lowest in more than a decade. European gas prices have fallen more than 60% since reaching a record earlier this month.

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**Qatar will stand in solidarity with Europe, won't divert gas contracts to other**

# customers: Minister of State for Energy Affairs



Doha: Minister of State for Energy Affairs HE Saad bin Sherida Al Kaabi stressed that Qatar will stand “in solidarity with Europe” and will not divert gas contracts to other customers, even if it means losing on possible financial gains.

The Minister told CNN that even though Qatar’s LNG contracts with Europe and the UK were divertible ones, Qatar’s commitment to Europe means “we’re not going to divert contracts and will keep them in Europe, even if there is financial gain for us to divert away, we would not do that,” before adding “that’s in solidarity with what’s going on in Europe.”

On the possibility for Europe to replace Russian gas, Al Kaabi said that replacing Russian gas is “not practically possible.” He highlighted that Russia supplies 30 to 40 percent of Europe’s gas needs, something the continent cannot replace.

The Minister of State rejected imposing sanctions on Russia’s

energy sector, adding that Qatar was not choosing sides in the Ukrainian crisis. He added that it was to keep the energy sector out of politics, due to the negative ramifications doing so would have on development. He added that doing so could affect prices the way it did and cause a lot of volatility.

He noted that the Ukrainian crisis had a negative impact on energy transition, highlighting that the use of coal has reached its highest levels ever, as all parties involved are prioritizing their energy security ahead of any long-term gains they are trying to reach. HE the Minister maintained however that the energy sector could do that in a responsible manner.

Commenting on the role the US could play in the future of energy production, he said that the US is certainly one of the biggest suppliers, given the abundance of LNG the country has.

On the prospects of Europe buying fuel jointly from large suppliers, the Minister said that he is yet to see a decision regarding that, noting that this never happened in the past. His Excellency added that many parties in Europe were speaking with Qatar and other large LNG producers because they want to diversify their supply.

On whether Qatar could turn its back on its Asian partners, the Minister of State for Energy Affairs said that QatarEnergy was the biggest company in terms of signing long-term contracts with partners in Asia, with many of those agreements signed over the past three years.

He also told CNN that there is a desire to diversify the buyers of Qatari gas, revealing that the plan is to have half of the customers of the Qatari gas be located to the East of the Suez Canal, with the other half to its West. Currently, 80-85% of Qatar gas buyers are in Asia, with 15-20% of customers located to the West of the Suez Canal.

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# 'Qatar, US recognise urgency climate change challenge'



Doha

The State of Qatar and the United States of America recognise the urgency of the challenge posed by climate change and the importance of accelerating global efforts on all aspects of the climate change agenda.

Qatar and the US also agree on the need to provide energy security and tackle the climate crisis together in light of current events and on the road to COP27 in Sharm el Sheikh. Rapidly reducing methane emissions is the most effective strategy to limit global warming in the near term and keep 1.5 degrees Celsius within reach.

Qatar's endorsement of the Global Methane Pledge provides critical momentum to global efforts to urgently reduce methane emissions. There are now 111 country endorsements of the Global Methane Pledge, representing 70% of the global economy and nearly half of global anthropogenic methane emissions.

Countries endorsing the Global Methane Pledge commit to take

national-level, voluntary actions to support the collective pledge target of 30% reduction in anthropogenic methane emissions by 2030 from 2020 levels.

Qatar is a global leader in tackling methane emissions as it has achieved example-setting progress reducing methane intensity in the energy sector over the past decade. Qatar has an impressive track record of actions and commitments to monitor, report, verify, and reduce methane, including through reducing flaring and methane emissions in the energy sector.

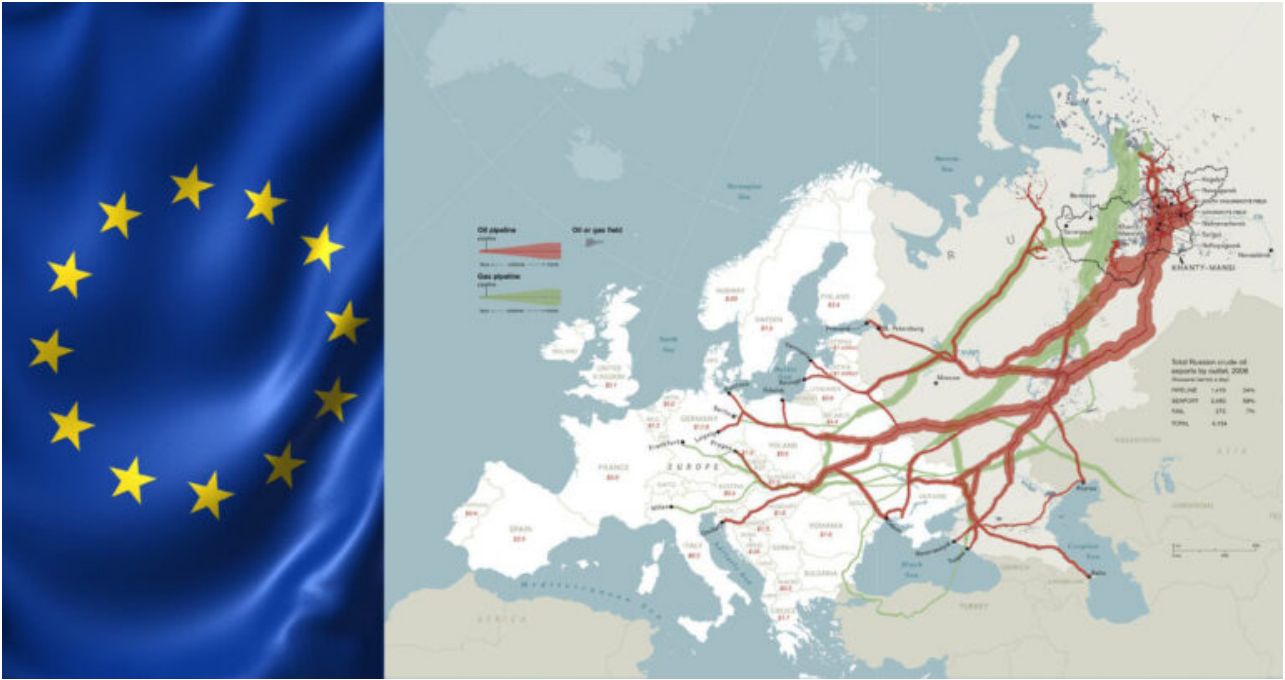
QatarEnergy was the first national oil company in the Middle East to sign the Methane Guiding Principles, which support voluntary corporate efforts to reduce methane emissions across the natural gas supply chain.

QatarEnergy is also an active member of the Global Gas Flaring Reduction Partnership (GGFR) with a firm commitment to end routine flaring by 2030 and has joined the second phase of the Oil and Gas Methane Partnership (OGMP 2.0), which enables systematic and credible reporting on oil and gas methane emissions.

The Global Methane Pledge builds on Qatar's status as a founding member of the Net-Zero Producers Forum, and its ongoing strong performance, and provides an exciting new platform for Qatar and the US to deepen cooperation on methane reduction efforts, including with third countries.

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**الحرب بين روسيا وأوكرانيا  
وسعي أوروبا الخاطئ إلى أمنها  
في مجال الطاقة**



### بقلم: رودى بارودي

لقد كشف تردد أوروبا في استهداف قطاع الطاقة الروسية لمعاينة موسكو على غزوها لأوكرانيا مدى هشاشة إمدادات الطاقة للقارة، حيث تتطلب أفضل الحلول، فهماً أعمق لكيفية وصول الوضع الأوروبي إلى ما هو عليه اليوم.

التفسير البسيط هو أن ألمانيا والعديد من الدول الأوروبية الأخرى أصبحت تعتمد بشكل مفرط على واردات الغاز الطبيعي الروسي. لكن هذا ليس صحيحاً تماماً، لأن العديد من العوامل الأخرى تزيد من ضعف أوروبا، وبينما يلعب سوء التوقيت دوراً في بعضها، فإن البعض الآخر ينبع من إخفاقات كبيرة على مستوى صناعة القرار الاستراتيجي.

قررت حكومات أوروبية عدة إغلاق محطات الطاقة النووية والفحم في السنوات الأخيرة، الأمر الذي لم يؤد سوى إلى زيادة حاجة أوروبا للطاقة - وبالتالي الاعتماد على - الغاز الروسي. هذا لا يعني أنه لم تكن هناك أسباب مقنعة لهذه القرارات، وأن تزامن فترة ما بعد الاعتماد على الطاقة النووية مع الأزمة الروسية الأوكرانية يعد سوء طالع إلى حد ما، ومع ذلك لا يمكن إنكار حقيقة أن التخلي عن هذا الكم الهائل من مولدات الطاقة النووية قد ترك لأوروبا عددًا قليلاً من البدائل العملية والقابلة للتطبيق. لكن المشكلة الحقيقية لم تكن بالإغلاق التدريجي لوحدات التوليد النووية؛ بل الفشل المتمثل في عدم الاستعداد بشكل مناسب للعواقب من خلال تجهيز مصادر طاقة

بديلة جديدة كافية، وخاصة مصادر الطاقة المتجددة.

في ألمانيا أيضاً، وإلى جانب سياسة التخلي عن الطاقة النووية نسبياً، تم تأجيل انشاء محطتين جديدتين لاستقبال شحنات الغاز الطبيعي المسال المنقولة بحراً لأكثر من عقد. وهذا يعني أنه، حتى لو تمكنت أوروبا من تأمين ما يكفي من الغاز الطبيعي المسال لاستبدال الغاز الذي يُضخ إليها من روسيا عبر الأنابيب، فإنها تفتقر إلى القدرة الكافية على إعادة تحويل الغاز المسال إلى غاز جاهز للاستهلاك يمكن الاستفادة منه بالكامل.

وفي منحى مماثل، فإن خط أنابيب نابوكو المقترح - الذي كان سينقل الغاز الأذربيجاني والمصري والعراقي و / أو التركماني من تركيا إلى النمسا - تعرض أيضاً لعراقيل متكررة وإلغاء نهائي في عام 2013، مما زاد من أهمية اعتماد أوروبا على الغاز الروسي وخطوط الأنابيب الروسية.

وبالرغم من ضياع هذه الفرص وغيرها على أوروبا والتي كانت ستؤمن لها المرونة في الاستفادة من مصادر طاقة متعددة من خلال تنويع مصادرها ووسائلها وطرق إمدادها، فإنه لا يزال أمام أوروبا الوقت لتحسين وضعها بشكل كبير، لا سيما على المدى المتوسط الطويل. أحد الخيارات الواعدة هو ربط فرنسا وإسبانيا بالجزائر والمغرب بوسائط نقل الغاز بأنابيب تحت البحر مع امكانية كبيرة لإعادة تكرير الغاز المسال الى غاز قابل للاستهلاك، حيث يمكن بعد ذلك توزيع الإمداد بالغاز إلى دول اوروبية أخرى. إلا أن مسائل سياسية وعراقيل مختلفة قد أدت إلى إبطاء هذا الاقتراح أيضاً، لذلك لا يسعنا إلا أن نأمل أن تساعد الأزمة الأوكرانية في تسليط الضوء مجدداً في مدريد وباريس على هذا المقترح.

هناك خطوات أخرى يمكن أن تتخذها أوروبا أيضاً، بعضها مباشر وتتطلب تسهيل التعاون عبر الحدود وتجاوز تطبيق بنود الاتفاقيات التي يمكن أن تستغرق وقتاً طويلاً لتحقيق. يتمثل أحدها في تعزيز قدرة القارة على تحمل حالات انقطاع واردات الغاز من خلال زيادة قدرتها التخزينية، سواء للغاز التقليدي في كهوف الملح تحت الأرض أو للغاز المسال في مستودعات الغاز الطبيعي الجديدة أو الموسعة.

وهناك خطوة ثانية تتمثل في تأجيل الألمان والبلجيكيين وغيرهم إغلاق

المحطات النووية المقرر إيقاف تشغيلها. والثالثة هو أن يقوم الهولنديون بتوسيع موانئهم الحالية لاستقبال الغاز الطبيعي المسال، أما الخطوة الرابعة فقد بدأت في الأيام القليلة الماضية حيث استهل الألمان العمل في مرافق الاستيراد الخاصة بهم. وقد تكون الخطوة الخامسة هي العمل فوراً على ربط حقل غاز شرق البحر الأبيض المتوسط عبر خط أنابيب إلى تركيا ومن بعدها إلى أوروبا.

يمكن أيضاً تحسين الوضع من خارج القارة. فقد ضاعفت الولايات المتحدة، على سبيل المثال، صادراتها من الغاز الطبيعي المسال إلى أوروبا، وينبغي أن تكون قطر - التي أوفت بكل التزام من التزامات التسليم على الرغم من الحصار غير القانوني لمدة عامين ونصف العام الذي فرضه عليها بعض جيرانها - قادرة على زيادة شحناتها أيضاً، الأمر الذي من شأنه أن يعيد الثقة بأسواق التوريد. أما إسبانيا فإلى جانب تلقيها الغاز عبر الأنابيب فهي أيضاً تتزود بالكهرباء المولدة من مزارع الطاقة الشمسية في شمال إفريقيا، بالإضافة إلى نطاق شبكات تعاون المشتركة الهائل على امتداد المنطقة الأورو متوسطة.

أخيراً وبالتأكيد ليس آخرًا، يمكن لأوروبا أن تخدم مصالحها على أفضل وجه - بكل ما للكلمة من معنى - من خلال الموافقة على دعمها المالي لمشاريع النفط والغاز المستقبلية للسنوات القليلة المقبلة، وأن تصبح أكثر جدية بشأن مصادر الطاقة المتجددة. تمتلك دول الأورو متوسطًا وحدها إمكانات كافية من طاقة الرياح البحرية لتحل محل الصناعة النووية العالمية بأكملها، بالإضافة إلى تقنيات أخرى، بما في ذلك الطاقة الشمسية والأمواج والمد والجزر والطاقة الحرارية الأرضية تحت سطح البحر.

كل هذا يجب أن يوفر الاستقلالية عن الغاز الروسي وأن يعبد الطريق نحو السلام وليس الحرب.



# Ο πόλεμος και η προβληματική αναζήτηση της Ευρώπης για ενεργειακή ασφάλεια



## ΗΜΕΡΗΣΙΑ

OPINIONS – 25.03.22 17:42

Roudi Baroudi

Τι πρέπει να γίνει για να υπάρχει απεξάρτηση από το ρωσικό αέριο και να κινούνται τα αγαθά για την ειρήνη, όχι για τον πόλεμο

Οι επιφυλάξεις της Ευρώπης να βάλει στο στόχαστρο τη ρωσική ενεργειακή βιομηχανία για να τιμωρήσει τη Μόσχα για την εισβολή της στην Ουκρανία έχει αποκαλύψει

ότι **οι ενεργειακές προμήθειες της ηπείρου δεν είναι επαρκείς**, με τις καλύτερες λύσεις να απαιτούν βαθύτερη κατανόηση του πώς η ευρωπαϊκή κατάσταση έφτασε στο σημείο που είναι σήμερα.

**Η απλή εξήγηση είναι** ότι η Γερμανία και πολλές άλλες ευρωπαϊκές χώρες έχουν γίνει υπερβολικά εξαρτημένες από τις εισαγωγές ρωσικού φυσικού αερίου. Αλλά αυτό είναι μόνο εν μέρει αλήθεια, καθώς πολλοί άλλοι παράγοντες τονίζουν την αδυναμία της Ευρώπης, άλλοι το αποδίδουν σε ατυχή συγκυρία, άλλοι το ερμηνεύουν ως **αποτυχία στο επίπεδο λήψης στρατηγικών αποφάσεων**.

Πρώτον, **πολλές κυβερνήσεις αποφάσισαν να κλείσουν τους πυρηνικούς σταθμούς** και τους σταθμούς ηλεκτροπαραγωγής με άνθρακα τα τελευταία χρόνια, γεγονός που απλώς αύξησε την ανάγκη της Ευρώπης και συνεπώς την εξάρτησή της από το ρωσικό αέριο. Αυτό δεν σημαίνει ότι δεν υπήρχαν επιτακτικοί λόγοι για αυτές τις αποφάσεις, και η σύμπτωση αυτής της μεταπυρηνικής περιόδου με την κρίση Ρωσίας-Ουκρανίας είναι τουλάχιστον εν μέρει κακή τύχη.

Ωστόσο δεν μπορεί να αμφισβητηθεί το γεγονός ότι η αδράνεια ή η ανικανότητα σε μεγάλες παραγωγές **έχει αφήσει την Ευρώπη με λίγες πρακτικές και βιώσιμες εναλλακτικές λύσεις**.

Το πραγματικό πρόβλημα, ωστόσο, δεν ήταν οι πυρηνικές διακοπές λειτουργίας των ίδιων των τοπικών μονάδων παραγωγής, αλλά μάλλον μια **αποτυχία επαρκούς προετοιμασίας για τις συνέπειες** προσθέτοντας άλλες εναλλακτικές όπως τις ανανεώσιμες πηγές ενέργειας.

Επίσης στη Γερμανία, και εν μέρει παράλληλα με τις διαδικασίες αποπυρηνικοποίησης, δύο νέοι τερματικοί σταθμοί για την παραλαβή υγροποιημένου φυσικού αερίου (LNG) έχουν καθυστερήσει για περισσότερο από μια δεκαετία.

Αυτό σημαίνει ότι **ακόμη κι αν η Ευρώπη μπορούσε να εξασφαλίσει αρκετό LNG** για να αντικαταστήσει το φυσικό αέριο που λαμβάνει από τη Ρωσία, **δεν έχει επαρκή ικανότητα επαναεριοποίησης** για

να το χρησιμοποιήσει πλήρως.

Ομοίως, ο προτεινόμενος **αγωγός Nabucco** -ο οποίος θα μετέφερε αέριο από το Αζερμπαϊτζάν, την Αίγυπτο, το Ιράκ ή και το Τουρκμενιστάν από την Τουρκία στην Αυστρία- σημείωσε επίσης επανειλημμένες καθυστερήσεις και τελικά ακυρώθηκε το 2013, επιβάλλοντας περαιτέρω τη σημασία του ρωσικού φυσικού αερίου και των ρωσικών αγωγών.

Παρά το γεγονός ότι η Ευρώπη έχασε αυτές και άλλες ευκαιρίες να γίνει πιο ευέλικτη και πιο ανθεκτική διαφοροποιώντας τις πηγές, τα μέσα και τις οδούς εφοδιασμού της, **έχει ακόμη χρόνο να βελτιώσει ουσιαστικά τη θέση της**, ιδίως μεσοπρόθεσμα και μακροπρόθεσμα.

Μια πολλά υποσχόμενη επιλογή είναι μια **διασύνδεση φυσικού αερίου** που θα επεκτείνει ριζικά τη χωρητικότητα του αγωγού **μεταξύ της Ισπανίας**, με υποθαλάσσιους αγωγούς προς την Αλγερία και το Μαρόκο και μια σημαντική αχρησιμοποίητη ικανότητα επαναεριοποίησης, **και της Γαλλίας**, από όπου οι εν λόγω προμήθειες θα μπορούσαν στη συνέχεια να διανεμηθούν σε άλλα σημεία της Ευρώπης.

Πολιτικές και άλλες ανησυχίες έχουν επιβραδύνει και αυτή την πρόταση, επομένως μπορούμε μόνο να ελπίζουμε ότι το επεισόδιο της Ουκρανίας θα βοηθήσει να ανανεωθεί η εστίαση στη Μαδρίτη και το Παρίσι.

Υπάρχουν και άλλα βήματα που θα μπορούσε να κάνει η Ευρώπη, μερικά από αυτά αρκετά απλά και απαιτούν λιγότερα από τη διακρατική συμφωνία και συνεργασία που **μπορεί να πάρουν τόσο πολύ χρόνο για να επιτευχθούν και να ενεργοποιηθούν**.

Το ένα είναι να ενισχύσουμε την ικανότητα της ηπείρου να αντέχει τις διακοπές παράδοσης αυξάνοντας την ικανότητα αποθήκευσης, είτε για συμβατικό αέριο σε υπόγεια σπήλαια αλατιού είτε για την υγροποιημένη έκδοση σε νέες ή διευρυμένες αποθήκες LNG. Ένα άλλο είναι **να καθυστερήσουν οι Γερμανοί, οι Βέλγοι και άλλοι το κλείσιμο των πυρηνικών σταθμών** που επί του

παρόντος προγραμματίζονται για παροπλισμό.

Ένα τρίτο είναι να επεκτείνουν οι **Ολλανδοί τα υπάρχοντα λιμάνια λήψης LNG** και ένα τέταρτο ξεκίνησε τις τελευταίες ημέρες, καθώς οι Γερμανοί άρχισαν να εργάζονται για τις δικές τους εγκαταστάσεις παραλαβής. Ένα πέμπτο είναι να εργαστεί άμεσα στο **κοίτασμα φυσικού αερίου East Med Leviathan** για σύνδεση μέσω αγωγού με την Τουρκία και μετά με την Ευρώπη.

Η κατάσταση μπορεί επίσης να βελτιωθεί από χώρες εκτός Ευρώπης. Οι **Ηνωμένες Πολιτείες**, για παράδειγμα, έχουν διπλασιάσει τις εξαγωγές LNG στην Ευρώπη, και το **Κατάρ** -το οποίο τήρησε κάθε μία από τις δεσμεύσεις του για παράδοση παρά τον παράνομο αποκλεισμό δυόμισι ετών που του επέβαλαν ορισμένοι από τους γείτονές του- θα πρέπει να είναι σε θέση να αυξήσει και τις αποστολές του, κάτι που θα αποκαθιστούσε την εμπιστοσύνη στις αγορές εφοδιασμού.

Εκτός από το φυσικό αέριο που διοχετεύεται με αγωγούς, η Ισπανία λαμβάνει επίσης ηλεκτρική ενέργεια που παράγεται από **ηλιακά πάρκα στη Βόρεια Αφρική** και τα περιθώρια για παρόμοια κοινά δίκτυα στην ευρωμεσογειακή περιοχή είναι τεράστια.

Τελευταίο, αλλά σίγουρα εξίσου σημαντικό, η Ευρώπη μπορεί να εξυπηρετήσει καλύτερα τα δικά της συμφέροντα -με όλη τη σημασία της λέξης- **εγκρίνοντας τη χρηματοδοτική της υποστήριξη σε μελλοντικά έργα πετρελαίου και φυσικού αερίου** για τα επόμενα χρόνια και λαμβάνοντας ακόμη πιο σοβαρά τις ανανεώσιμες πηγές ενέργειας.

Οι ευρωμεσογειακές χώρες από μόνες τους έχουν αρκετό **υπεράκτιο δυναμικό αιολικής ενέργειας** για να αντικαταστήσουν ολόκληρη την παγκόσμια πυρηνική βιομηχανία, και άλλες τεχνολογίες καλούν επίσης, όπως ηλιακή, κυματική, παλιρροιακή και υποθαλάσσια γεωθερμία.

Όλα αυτά για να υπάρχει απεξάρτηση από το ρωσικό αέριο και να κινούνται τα αγαθά για την ειρήνη, όχι για τον πόλεμο.

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# The Russia-Ukraine war and Europe's flawed quest for energy security



BY ROUDI BAROUDI, OPINION CONTRIBUTOR – 03/25/22 02:30 PM EDT  
THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE  
VIEW OF THE HILL

Europe's hesitance over targeting Russia's energy industry to punish Moscow for its invasion of Ukraine has exposed the precariousness of the continent's energy supplies, with best solutions demanding a deeper understanding as to how the European situation got to where it is today.

The simple explanation is that Germany and several other European countries have become over-reliant on imports of Russian natural gas. But this is only partly true; numerous other factors accentuate Europe's vulnerability, and while some amount to unfortunate timing, others stem from significant failings at the strategic decision-making level.

For one thing, several governments have decided to close their nuclear and coal power plants in recent years, which has only increased Europe's need for – and therefore dependence on – Russian gas. This is not to say that there were no compelling reasons for these decisions, and the coincidence of this post-nuclear period with the Russia-Ukraine crisis is at least partly bad luck, yet there is no denying the fact that the idling of so much output capacity has left Europe with few practical and viable alternatives. The real problem, though, was not the nuclear shutdowns phasing out local generating units themselves; rather, it was a failure to adequately prepare for the consequences by adding enough new capacity, especially renewables.

Also in Germany, and partly alongside the denuclearization process, two new terminals for receiving seaborne shipments of liquefied natural gas (LNG) have been delayed for more than a decade. This means that even if Europe were able to secure enough LNG to replace the piped gas it gets from Russia, it lacks sufficient regasification capacity to make full use of it.

Similarly, the proposed Nabucco pipeline – which would have carried Azerbaijani, Egyptian, Iraqi, and/or Turkmen gas from Turkey to Austria – was also subjected to repeated delays and eventual cancellation in 2013, further entrenching the importance of Russian gas and Russian pipelines.

Despite having missed these and other opportunities to make itself more flexible and more resilient by diversifying its sources, means, and routes of supply, Europe still has time to

substantially improve its position, especially in the medium and long terms.

One promising option is a gas interconnector which would radically expand the pipeline capacity between Spain, with both undersea pipelines to Algeria and Morocco and a considerable unused regasification capacity, and France, from where the supplies in question could then be distributed to other points in Europe. Political and other concerns have slowed this proposal as well, so we can only hope that the crisis in Ukraine will help renew the focus in Madrid and Paris.

There are other steps Europe could take as well, some of them quite straightforward and requiring less of the cross-border agreement and cooperation that can take so long to reach and activate. One is to bolster the continent's ability to withstand delivery interruptions by increasing its storage capacity, whether for conventional gas in underground salt caverns or for the liquefied version in new or expanded LNG depots. Another is for the Germans, Belgians, and others to delay the closure of nuclear plants currently slated for decommissioning. A third is for the Dutch to expand their existing LNG receiving ports, and a fourth has got under way in the last few days as the Germans have started work on their own receiving facilities. A fifth is to work immediately on the East Med Leviathan gas field to connect via pipeline to Turkey and onward to Europe.

The situation can also be ameliorated from the outside. The United States, for example, has doubled its LNG exports to Europe, and Qatar – which met every single one of its delivery commitments despite the illegal two-and-half-year blockade imposed on it by some of its neighbors – should be able to increase its shipments, too, something that would restore confidence in supply markets. In addition to pipelined gas, Spain also receives electricity generated by solar farms in North Africa, and the scope for similar shared grids across

the Euro-Mediterranean region is enormous.

Last, but certainly not least, Europe can best serve its own interests – in every sense of the word – by approving its financial support on future oil and gas projects for the next few years and getting even more serious about renewables. The Euro-Med countries alone have enough offshore wind power potential to replace the entire global nuclear industry, and other technologies beckon as well – including solar, wave, tidal, and undersea geothermal.

All this to become independent of Russian gas and to move for peace, not war.

Roudi Baroudi is a senior fellow at the Transatlantic Leadership Network and the author of “Maritime Disputes in the Mediterranean: The Way Forward” a book distributed by the Brookings Institution Press. With more than 40 years of experience in fields including oil and gas, electricity, infrastructure and public policy, he currently serves as CEO of Energy and Environment Holding, an independent consultancy based in Doha, Qatar.

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## **The Euro**





A stack of 50, 20 and 10 euro notes is arranged for a photograph inside a Travelex store, operated by Travelex Holdings Ltd., in London, U.K., on Wednesday, March 6, 2013. The U.K. currency weakened against all except one of its 16 major counterparts as 11 of the 39 economists surveyed by Bloomberg News predict the central bank will tomorrow increase its asset-purchase target to at least 400 billion pounds (\$603 billion) from the current 375 billion pounds. Photographer: Simon Dawson/Bloomberg

Hey, euro! For a while there, you looked like a goner. During those debt crisis days in 2012 when Greece was imploding and Spain's banks were teetering and the Germans were asking why they had to pick up the bill, there was a serious wobble. Common European currency? Remind us, please, what Europeans actually have in common. Now with Britain heading out of the European Union and Greece in a perpetual pinch, there are constant reminders of the euro's shortcomings. Though the rules governing the 19-nation shared currency have been tightened since the crisis, there's still a regular chorus of business leaders and politicians who say that its demise is just a matter of time. The latest challenge: populist politicians capitalizing on discontent and targeting the euro. Can the world's most ambitious financial experiment survive?

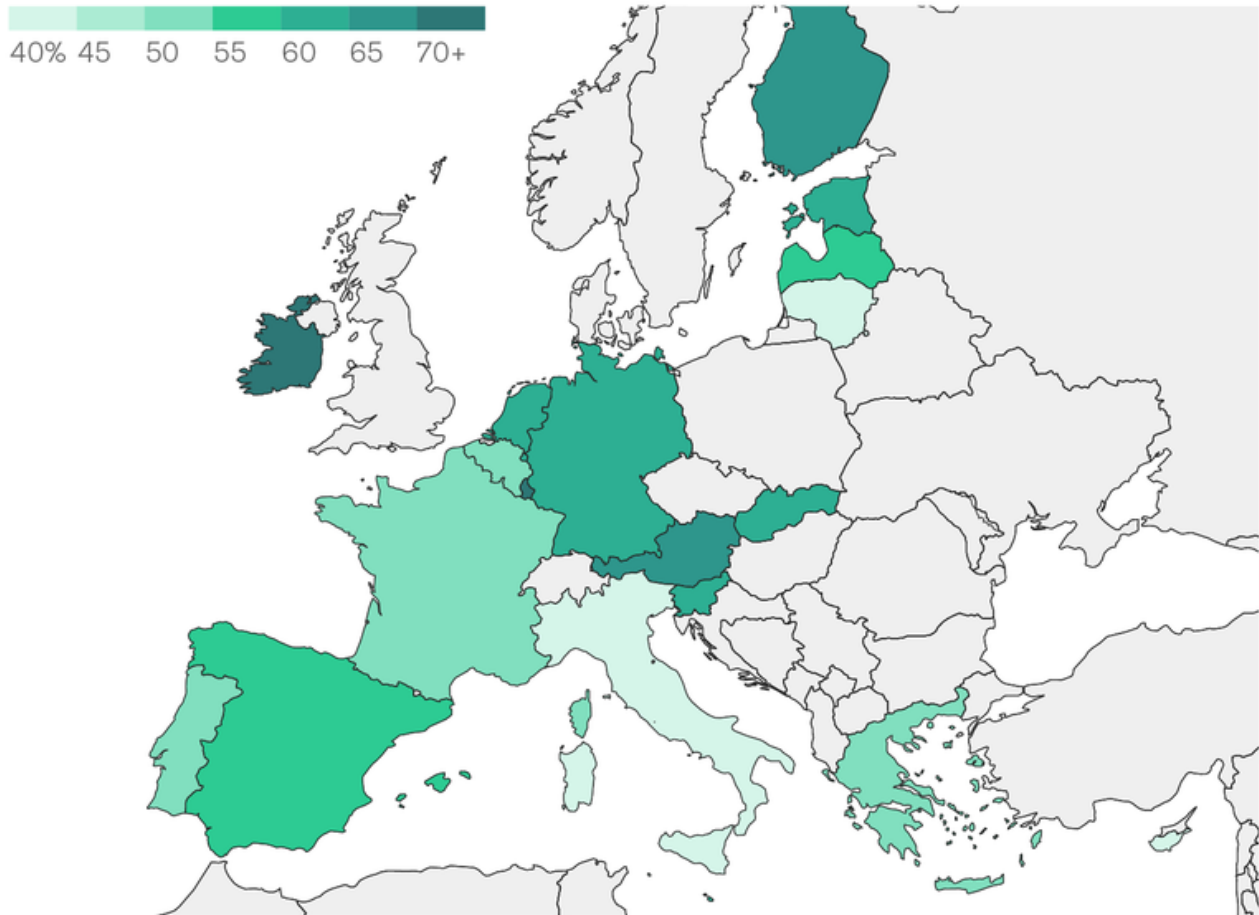
## **The Situation**

As the euro stumbled on, wealthier nations in the north were often pitted against poorer ones in the south, amplifying the differences among them. Anti-EU protest parties have gained support from voters fed up with the failings of other member countries and the loss of control to bureaucrats in Brussels. Withdraw from the euro is a rallying cry for Italy's Five Star Movement and Marine Le Pen's National Front in France, which rattled investors before a presidential election in May with promises to redenominate the country's debt. Greece has struggled to qualify for crucial loans after surrendering to its third bailout in five years in 2015 to remain part of the euro. Months of bitter disagreement and Germany's insistence on more austerity left a lingering sense that Greece will have to leave the currency union eventually. Europe's slow recovery from a double-dip recession hasn't helped, with euro-zone unemployment forecast to remain above 9 percent for a ninth year in 2017. The euro dropped by the most on record in June 2016 on the surprise decision by British voters to leave the EU, even though the U.K. is not part of

the common currency.

## Support for the Euro

Share of people who say the euro is good for their country ranges from 40% in Cyprus to 81% in Ireland



Note: 17,535 people surveyed by telephone, 17-18 Oct. 2016  
Source: European Commission report 2016

BloombergQuickTake

## The Background

The precursor to the EU was set up in 1958, as the continent's leaders vowed to make another war between them all but impossible. The euro came in 1999, when a group of 11 countries jettisoned marks, francs and lire and turned control of interest rates over to a new central bank. The common currency's scale provided exchange-rate stability and better access to world markets. It Un homme tabassé par les gendarmes \_ Comores Infosdid not, however, impose uniform financial discipline; to avoid surrendering national

sovereignty, politicians largely sidestepped a unified approach to bank regulation and government spending. To the extent that there were rules, they were flouted. The events that brought the euro to its knees came during the global rout in 2009, when Greece came clean and said its budget deficit was twice as wide as forecast. Investors started dumping assets of the most indebted nations and borrowing costs soared. The shared euro made it impossible to devalue individual currencies of weaker economies, limiting options for recovery. Politicians lurched through bailouts for Greece, Ireland, Portugal and Cyprus plus a rescue of banks in Spain. The panic fueled fears of a breakup as fragile banks and their holdings of government bonds exposed the common currency's vulnerabilities. The firestorm abated in July 2012, when European Central Bank President Mario Draghi pledged to do "whatever it takes" to save the euro.

### **The Argument**

Euro-area leaders say the common currency is now more resilient in the face of shocks. They argue that even if Greece were to fall out of the euro, the currency would survive, though there's a vigorous debate about how serious the economic and political consequences would be. New systems have been put in place to centralize bank supervision and build firewalls between troubled debtors and taxpayers. The measures still may not have gone far enough. Aspirations by the euro's founders for an "ever closer union" – including more oversight of national budgets and the pooling of debt – have not been realized. For some observers, the euro's flaws simply sow the seeds for another crisis.

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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.*