

European Energy Crisis: R. Baroudi: “It is entirely possible for Greece to be a strategic energy hub for Europe”



Roudi Baroudi

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Interview with Newmoney.gr by Symela Touchtidou

Questions:

- 1. What is your assessment on the current energy crisis? How long will it last? Is there a way out of it? Is there a way out of it without Russia included?**

Obviously it's a very serious problem, not only for Europe, but also for the whole world as this is affecting so many aspects, from electricity crises to petrol prices for vehicles, transportation in general, food chain, etc.

It's very difficult to predict how long it will last as the war has just begun, but four months in, it has already caused so much damage. Predicting an end-date is a difficult ask because both the problems and the solutions have so many moving parts. First, the problem is a product of several contributing factors, including: earlier decisions to phase out coal and nuclear plants in some European countries; a failure to sufficiently diversify Europe's overall energy basket (leading directly to over-reliance on Russian supplies, especially pipelined natural gas); and the after-effects of the early-pandemic collapse of oil and gas prices, which forced many producers around the world to shut down, leading in turn to upward pressure on international prices when demand recovered. The combined impact of all this was made even heavier by the timing: the crisis comes just as we are struggling to keep up with decarbonization goals by transitioning away from fossil fuels and toward cleaner and greener energy, leaving European energy markets extremely vulnerable to supply interruptions – or even the possibility thereof. To have had the Ukraine war break out when it did was in many ways worst-case scenario, and that's what we're dealing with.

Second, the effectiveness and timeliness of solutions will be determined by multiple variables that depend on sound decision-making and dedicated follow-up, adequate financing from both governments and multilateral financial institutions, and cooperation among EU countries and with their neighbors in North Africa and the Eastern Mediterranean. Europe has several buttons it can push, and the more of them it pushes, the better the results will be. Some of these would be to delay

the coal/nuclear phaseouts; radically increase investments in renewables like wind and solar; expand Europe's capacity to receive and process shipments of liquefied natural gas; make better use of such capacity in Spain by linking it to France, and therefore the rest of Europe, by pipeline; install shared power grids with neighboring regions; help develop undersea gas resources in the Eastern Mediterranean; and build new pipelines linking EU markets to gas producers in Central Asia. The more of these things we do – and do well – the sooner the crisis will recede. The more we allow implementation of such steps to be delayed, the longer the crisis – and Europe's vulnerability to similar problems in the future – will persist.

So in the final analysis, yes, we can get out of this crisis, but there is no single path that will get use there. And yes, we can do so with or without the participation of the Russians, but of course the process would be much easier with them somehow included.

2. Do you see energy prices ever going back to the 2020 levels? Will Europeans have to adjust to living with expensive electricity and fuels? What would that mean for the overall European economy?

In the medium/long terms, provided we take all or most of the steps I listed earlier, energy prices will definitely go back one day to the levels for 2020 as a whole, but not to the negative prices seen briefly when COVID-19 caused demand to fall off a cliff before production had been dialed back, causing a sudden glut. As I'm sure you know, commodity prices for oil and gas are connected not only to their respective supply and demand situations, but also to each other. The conditions that caused negative prices were highly unusual, and even if we approached those levels again, by their nature they could not last long.

Nonetheless, prices can be brought down, and the process is already under way. As of today, many responsible countries are increasing their production of oil and gas to help calm markets in Europe and elsewhere, but some countries are refusing to, while several others are under sanctions, preventing them from bringing to the market several million barrels needed to cool off the price hikes. For the time being, Europeans are having a very hard time to cope with electricity and fuel costs, especially here in Greece, where energy prices are unbelievably high.

Germany is another example.

Given the situation, and because it's probably the fastest method available, some European countries need to suspend or reverse their decisions to close their nuclear and coal power plants. Instead, they need to delay closures for another five-to-seven years, and maybe build one or two new coal plants, too, to cope with rising demand and restrain upward pressure on prices until other sources of energy can come online.

Despite the likelihood that prices will eventually retreat, in the short to medium term, Europeans definitely need to adapt. Studies have indicated that elevated energy prices will mean reduced economic growth, especially in Germany, whose importance to the rest of Europe cannot be overstated. That means more people will have less means to cope with higher energy prices, and that makes it incumbent on EU and national leaders to develop policies and mechanisms to cushion the blow, especially for lower-income families.

- 3. The Greek government asks from the EU “a targeted and temporary intervention” in the natural gas wholesale market to bring prices down. Do you believe such an intervention is possible, and if so, what impact could be?**

It is definitely possible. There will be circumstances when the EU has to assist EU members, such as during times of war, and the current situation is an extraordinary one, unseen since World War II. With this extraordinary state of affairs, the Greek government – like any other member state – can and should propose viable paths forward, e.g. caps on rising electricity, petroleum and/or other energy costs. At the very least, with the help of the EU, the government should be able to subsidize certain low-level consumers, for instance households whose consumption is less than 100 KWh per day.

4. Are you aware of the ‘Six-Point Plan’ of the Greek government? What is your assessment on it? (available here <https://primeminister.gr/en/2022/03/09/28836>)

Yes, I am aware of the Six-Point Plan that Prime Minister Mitsotakis has proposed. It's a very positive move forward in order to cushion some of the pain from disastrous price increases, which are driving inflation across the Greek economy. Here, Greece is contributing to the European Union's overall policy formulation, which seeks to provide protection against the major consequences emanating from the Russia-Ukraine war, and the Greek plan is definitely doable. There are other measures, too, that could be taken to shield the country from the continuous negative repercussions of the war in Ukraine. Of course gas supplies could be increased by expanding the Trans-Anatolian gas pipeline (TANAP) to boost imports from Azerbaijan gas, for instance, but keeping coal power plants would also help contain pressure on electricity prices, as would adding a nuclear plant of 4,000-6,000 MW. Moving quickly to promote energy conservation, too, would also help alleviate spiking costs and give Greek households and business sustainable access to more affordable electricity.

- 5. Greece is the only European country where electricity prices are directly linked to natural gas international stock prices. Do you believe there is a way out of this? What measures could be taken to bring electricity prices in the Greek market down?**

Yes, there is definitely a way out. This is the responsibility of the Regulatory Authority for Energy, which controls and regulates energy prices in Greece. Given the circumstances, the RAE certainly has a powerful incentive to propose a different mechanism, one that would follow other European countries in order to help keep energy prices at affordable costs for all.

- 6. You have written a book on “Maritime Disputes in the Eastern Mediterranean: The Way Forward”. Do you believe there is room for peaceful cooperation between Greece, Cyprus and Turkey in the energy field and if so, what would be the means to achieve it?**

Yes, I believe very strongly that Greece, Cyprus, and Turkey could and should find ways to cooperate in the energy field, and there several ways in which working together would offer many advantages. One is exploration and development of oil and/or gas deposits beneath the seabed of the Eastern Mediterranean, in which the parties could share costs, share data, reduce duplication, invest in one another's fields, etc. The same could go for offshore wind farms.

Another is the construction of one or more pipelines that could transport East Med gas to the European mainland without having to have the entire route under water: just get it to Turkish coast and run the rest of it overland. Potentially, the three countries also could team up to build an LNG plant, an enormous investment and therefore one for which spreading the risk would be very attractive.

Definitely there is always room for peace and there is always room for diplomacy. The way forward is for Greece and Turkey to continue their discussions based on the principles of the UN Convention on the Law of the Sea (UNCLOS) which is the Atlas of the World Ocean. Unlike Cyprus, neither Greece nor Turkey is a signatory to UNCLOS, but its guidelines and precedents are applicable to – and actionable by – all countries. UNCLOS provides a legal and technical infrastructure with which Greece and Turkey, as the main parties, could sit down and, with reference to surveys using the latest science and technology, arrive at a fair and equitable maritime solution. Both Prime Minister Mitsotakis and President Erdogan have expressed their willingness to solve this conflict, and I believe that right now, the time is right to get it done. In my book, I have highlighted studies indicating that both countries would lose some maritime areas, but both countries would gain far more: the beauty of a win-win outcome, one in which both neighbors would be able to benefit from the region's oil and gas wealth, and both peoples would be able to enjoy peace and prosperity.

7. Greece aspires to become a strategic energy hub for Europe. Is this possible and if so what benefits will it bring to the country?

Absolutely it is possible. Depending on what quantities they have, every East Med country that ends up producing oil and gas can become an energy hub to some extent at least. Looking back, 10 years ago, Cyprus was slotted to become a nice regional hub for pipelines and an LNG terminal, and if development keeps on growing, it still has a good chance to make those predictions come true. Greece could also become a major energy center in the next decade if their exploration efforts confirm the same kinds of deposits found offshore other East Med countries like Egypt and Israel. Indeed a lot of private sector firms are interested, but this will probably

take 5-10 years after exploration confirms sufficient quantities of hydrocarbons.

The benefits of hub status would be significant: more good-paying jobs for Greek citizens, more profits for Greek companies, more revenues for the Greek government, more funds available for roads, schools, and hospitals, more influence on the European and global stages, etc.

EUROPE ENERGY CRISIS – Qatar and Germany sign energy strategic partnership



News – Oil and Gas – Berlin, May 2022

Qatar's Emir, His Highness Sheikh Tamim bin Hamad Al Thani,

and German Chancellor Olaf Scholz signed a strategic energy partnership on May 20 as Germany scrambles to reduce its dependence on imports of coal and pipelined natural gas from Russia, mainly to punish the latter for its invasion of Ukraine.



Al Jazeera turned to regional energy expert Roudi Baroudi to provide context and analysis for the summit, which could have historic implications. Baroudi confirmed that the German plan centers on a rapid switchover to seaborne shipments of liquefied natural gas, so the government is building two LNG plants, at Brunsbüttel and Wilhelmshaven, along with the possibility of adding three offshore floating storage and regasification units (FSRUs).

Baroudi estimated that these facilities, including the FSRUs, could account for 20-30% of German's annual gas needs of approximately 85 billion cubic meters.

He also explained that Qatar, which has the world's second largest gas reserves and has led the industry in LNG exports for most of the past two decades, would be a natural secure and reliable fit to supply even more gas to European terminals that it already does. The Gulf state has recently invested in

even more LNG capacity, via an expansion of its North Field operations, which will see its output once again surpass those of the United States and Australia as the world's largest producer

How Ethanol and E15 Gas Fit Into Biden's Plans to Fight Inflation



Ethanol, the intoxicating alcohol found in beer, wine and liquor, has been powering automobiles in the U.S. since the era of the Model T more than a century ago. Since the 1970s, when oil became more expensive and subject to international

disputes – and as worries rose about the environmental damage caused by fossil fuels – the U.S. government has used tax policy and regulations to encourage use of ethanol and other environmentally friendly alternatives to gasoline. U.S. President Joe Biden, as part of his efforts to combat rising prices, is making it easier to sell more ethanol in the coming summer months, even as critics raise concerns about the corn-based fuel.

1. What does ethanol do?

It provides oxygen, making gasoline burn more cleanly in engines. The biofuel E10, so named because it contains 10% ethanol and 90% gasoline, is widely accepted and available at U.S. gas stations. E15, with its 15% ethanol, is currently 5 to 10 cents cheaper per gallon than E10, a discount that's especially appealing in these times of sky-high fuel prices. However, ethanol is corrosive, and some critics believe that E15 can cause damage to cars. In 2011, the EPA authorized the use of E15 for newer cars made in 2001 and later. But it's still not common at U.S. service stations; just about 2,300 of the nation's more than 150,000 filling stations sell E15. And E15 is typically banned in most areas of the U.S. during the summer months.

2. Why is summer an issue?

Since the heat of summer increases the evaporation of all liquids, including gasoline, the EPA has had more stringent rules in place between June 1 and Sept. 15 to regulate Reid vapor pressure, the propensity for gasoline to evaporate and lead to smog. The EPA has granted E10 a waiver from the vapor pressure limit, but not E15.

3. What change is Biden making?

The U.S. Environmental Protection Agency, which regulates air pollution from gasoline, is issuing a national emergency waiver to allow E15 fuel to be widely sold this summer, even

in areas where it's typically off-limits. The move temporarily exempts E15 from air pollution requirements that block the fuel's sale in most areas of the country from June 1 to Sept. 15.

4. Why is this change temporary?

The EPA tried making the change permanent in 2019 under former President Donald Trump, issuing a rule allowing year-round sales of E15 even in areas where smog is a problem. The nation's top refining trade group successfully challenged the regulation in federal court, and the rule was tossed out two years later. Ethanol producers have lobbied the Biden administration to try again. The three-and-a-half-month summer blackout period deters some retailers from offering E15 at all, since they'd need to change pumps and warning labels at the start and end of each summer.

5. Who supports year-round use of E15?

Mainly agricultural interests in the Midwest. Corn use for ethanol has more than tripled since 2005, when President George W. Bush enacted the Renewable Fuel Standard that compels refiners and fuel importers to use a variety of biofuels. Ethanol now accounts for about 10% of U.S. gasoline usage, up from less than a 10th of 1% in 1993. Demand also was given a boost by the Clean Air Act amendments of 1990, which spurred the use of ethanol as an oxygenate to combat pollution. Support for ethanol is a political litmus test in the Midwest U.S.; while campaigning for the presidency in 2020, Biden promised to "promote and advance renewable energy, ethanol and other biofuels."

6. Who opposes year-round use of E15?

Oil companies have battled it for years, warning about potential engine damage from motorists inadvertently pumping the fuel into vehicles and other equipment not approved to use it. Some automakers warn that car warranties would be voided

if motorists use E15. Oil refiners worry that increased use of ethanol will pare their share of the fuels market. (This risk is less acute for refiners that also produce ethanol, such as Valero Energy Corp.) Some environmental activists argue that expanding the availability of E15 will drive the production of more corn, resulting in more prairies being plowed and waterways polluted by agricultural runoff.

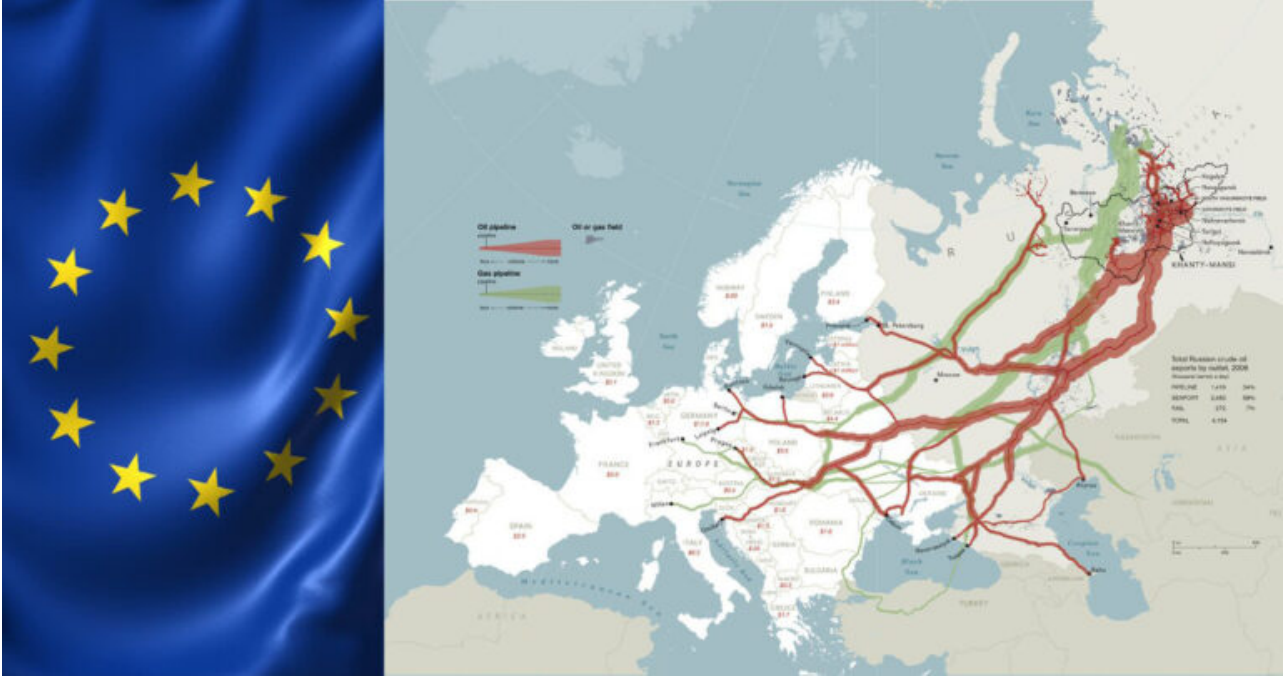
7. What would broader use of E15 mean for industry?

Not very much, especially right away under the emergency waiver, since the necessary equipment to distribute E15 is limited and concentrated in the Midwest. For refiners and fuel importers obligated to blend renewable fuels into their products, the move could trigger the generation of more biofuel credits and modestly lower the price of compliance. A long-term shift to allow E15 sales year-round could mean a gradual reduction in U.S. demand for petroleum, which refineries can offset with increased exports.

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



بقلم: رودى بارودى

لقد كشف تردد أوروبا في استهداف قطاع الطاقة الروسية لمعاقبة 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 عدداً 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 متوسطية.

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 متوسطي 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 αξιοποιήσιμη 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.

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.

What's Behind Europe's Skyrocketing Power Prices



Europe's energy ambitions are clear: to shift to a low-carbon future by remaking its power generating and distribution systems. But the present situation is an expensive mess. A global supply crunch for natural gas, bottlenecks for renewable energy and wind speeds in the North Sea among the slowest in 20 years, idling turbines, have contributed to soaring prices for everything from electricity to coal. Governments are preparing to intervene if needed in volatile energy markets to keep homes warm and factories running.

1. What's the problem here?

Energy prices skyrocketed as economies emerge from the pandemic – boosting demand just as supplies are falling short. Coal plants have been shuttered, gas stockpiles are much lower than normal and the continent's increasing reliance on renewable sources of energy is becoming a vulnerability. Even with mild weather, benchmark gas prices traded as high as 100 euros per megawatt-hour on Oct. 1, the first day of the official heating season for the European energy markets. That's up almost 400% from the start of the year. Italy's ecological transition minister, Roberto Cingolani, said he

expected power prices to increase by 40% in the third quarter. In the U.K., CF Industries Holdings Inc., a major fertilizer producer, shut two plants, and Norwegian ammonia manufacturer Yara International ASA curbed its European production because of high fuel costs. Mining company Boliden AB says the record prices will boost costs for the industry for years to come.

2. What do gas prices have to do with electricity?

Some 23% of European Union electricity was generated from gas in 2019, just behind the 26% that came from nuclear plants. Electricity is very hard to store, which means that big swings in fuel costs translate quickly into price volatility. Large batteries exist, of course, and that technology is developing quickly, but it will be many years before they can offer serious storage capacity for renewable energy. Some European countries have become increasingly dependent on electricity exports from others with an abundance of power.

3. Why is there a supply shortfall?

Storage sites in Europe reached late summer, when natural gas inventories usually get replenished, at their lowest levels in more than a decade for the time of year. Supplies from Russia were limited because it was rebuilding its own inventories, while Norwegian gas flows were lower than average during maintenance work at its giant fields and processing stations. That said, prices in Europe would need to rise even higher in order to attract cargoes of liquefied natural gas away from Asia, where China is stockpiling to power its economy and build reserves for winter.

4. Why is China important for European energy markets?

It's by far the biggest consumer of energy and commodities in the world, and it has ordered state-owned companies to secure supplies at all costs.

5. How are power prices set in Europe?

Utilities and big companies buy and sell power years in advance, relying heavily on forecasts about the economy and long-term fuel costs. The broader European power market has traditionally been focused on the price for the following day, with auctions supplying a day-ahead price functioning as the benchmark. Traders submit bids and offers for each hour based on their calculations of supply and demand, and then an average price is calculated by the exchange handling that market. Consumer prices are set by state regulators after utilities request rate changes based on how much they've paid for wholesale power, transmission investments and overall upkeep of their grids.

6. What's new in the system?

The explosion of renewable energy, which is more intermittent than fossil- or nuclear-fuel generators. Because weather patterns can create big price shifts, markets for shorter time periods later the same day have also become vital.

7. How reliant is Europe on wind?

Northern coastal countries including the U.K., Germany and Scandinavian nations have become leaders in wind generation and technology. In Spain, the growth in wind and solar plants helped send its share of renewable energy to a record 44% of total power in 2020. France also is producing more power from wind, but its electricity generation is still dominated by nuclear plants.

8. Which countries are most at risk of running out of power?

Those with limited cable links to their neighbors. In a crisis, they are less able to benefit from Europe's interconnected market, which enables power to flow to where it's needed the most and where it fetches the highest price. Ireland's grid operator warned in September that there was a risk of blackouts due to lack of wind. Many U.K. plants are old and break down from time to time. If big outages coincide

with little wind or sun, the nation could be close to running out of electricity.

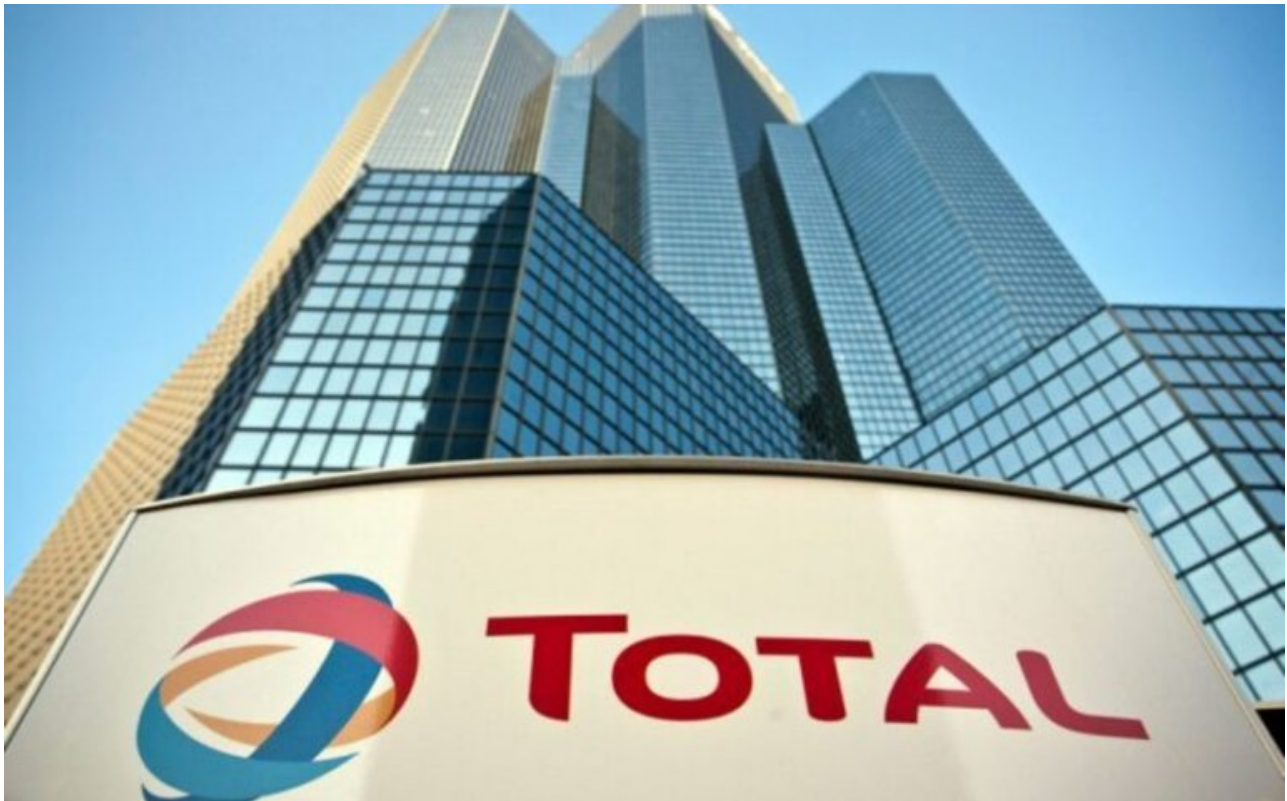
9. What does this mean for Europe's climate goals?

Renewable energy brings volatility, and that's going to make it very costly for the continent to reach its targets. In Germany, for instance, outgoing Chancellor Angela Merkel's energy policies have cost citizens hundreds of billions of euros in subsidies. EU climate chief Frans Timmermans has said higher prices must not undermine the bloc's resolve to expand renewable power and that the industry should speed up instead to make more cheap green energy available.

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Total, Eni to invest in Libya's energy sector



France's TotalEnergies and Italy's Eni said they were ready to invest billions of dollars in Libya as the OPEC nation emerges from a decade of conflict and civil war. France's TotalEnergies and Italy's Eni said they were ready to invest billions of dollars in Libya as the OPEC nation emerges from a decade of conflict and civil war. "I want to contribute to Libya's comeback," TotalEnergies' Chief Executive Officer Patrick Pouyanne said on Monday at an energy conference in the capital, Tripoli.

"Some may see more boldness than wisdom in TotalEnergies' decision to partner with Libya. I don't. Where they see risks, I see the opportunities." The Paris-based firm will put \$2 billion into Libya's Waha oil project, which will boost production by around 100,000 barrels a day, he said. It will also work to raise output at the Mabruk field and help build 500 megawatts of solar power to feed the local grid. Libya will be a vital source of supply for global petroleum markets over the next decade, Pouyanne said. The nation contains Africa's biggest oil reserves but has been mired in fighting for much of the period since 2011, when leader Moammar Qaddafi was toppled in an uprising.

Warring sides struck a truce in mid-2020, leading to more stability and enabling crude output to rise from barely anything to around 1.1 million barrels a day. The government has said it needs plenty of foreign investment to sustain that level of output, let alone reach its target of between 2 and 2.5 million barrels per day within six years. Elections Loom An interim government led by Prime Minister Abdul Hamid Dbeibah is meant to govern the country until shortly after presidential elections scheduled for Dec. 24. Dbeibah said this week that he will run for the presidency, joining a field that includes Saif al-Islam Qaddafi, a son of the former dictator, and eastern-based commander Khalifa Haftar. The two-day conference is the first prominent energy forum in Libya for over 10 years. Pouyanne and Eni's chief operating officer, Alessandro Puliti, were the highest-profile foreign executives to attend on the first day. Eni will push ahead with oil, natural-gas and solar projects, according to Puliti. "Libya has significant remaining oil and gas potential," he said. "Eni is ready to support that development." The Italian company was one of the first firms to explore in Libya and struck oil there in the late 1950s. It currently pumps about 400,000 barrels a day of oil and gas, making it the biggest foreign energy company in the country, Puliti said.

La Cop26 di Glasgow: le linee guida per i Paesi del Mediterraneo



Roudi Baroudi: un appuntamento fondamentale per definire strategie politiche economiche efficaci a contrastare il cambiamento climatico.

Il noto esperto a livello internazionale in campo energetico Roudi Baroudi, pone in evidenza una riflessione in concomitanza con l'imminente arrivo della conferenza sul cambiamento climatico delle Nazioni Unite (COP26) che si terrà quest'anno a Glasgow.

Baroudi definisce questo appuntamento memorabile e storico in particolare per i paesi del bacino del Mar Mediterraneo, Italia compresa. Fa osservare che l'aumento delle temperature e la crisi climatica globale è in atto e gli eventi dell'estate 2021 ne sono la testimonianza reale.

Il fenomeno degli incendi, per esempio, si manifesta con dimensioni e intensità insolite rispetto al passato ed anche nel caso di attività dolosa l'aridità circostante e le alte temperature hanno favorito la propagazione violenta nelle aree colpite generando numerose morti, danni alle proprietà e

distruzioni dei terreni agricoli coltivati. In casi come quello della Turchia seguiti da forti inondazioni dovute a piogge torrenziali dopo pochi giorni.

Questi fenomeni non sono più eventi sporadici localizzati in determinate aree, ma costituiscono una vera e propria testimonianza della catastrofe climatica in atto.

Questo ci impone di moltiplicare gli sforzi e sperare di poter invertire la tendenza prima che raggiunga un punto di non ritorno. Se non andremo in questa direzione, continua Baroudi: "la nostra specie dovrà affrontare un futuro sempre più complesso con più incendi, innalzamento del livello del mare, accelerazione dell'acidificazione degli oceani, calo degli stock ittici, tempeste più violente, siccità più lunghe e intense, raccolti compromessi, milioni di rifugiati climatici e fame di massa".

Svariati paesi del Mediterraneo, specialmente appartenenti ad Asia ed Africa hanno già situazioni complesse dal punto di vista territoriale per via della posizione geografica (Sud Italia incluso), inoltre i paesi con meno disponibilità economica fanno ancora molta fatica nella conversione ad impianti con minor impatto ambientale.

Nonostante questo scenario apocalittico, incalza Baroudi, non tutto è perduto. L'Unione europea ha compiuto progressi importanti rispetto alla maggior parte del resto del mondo e sta adottando delle politiche più stringenti sulle emissioni.

Anche gli Stati Uniti stanno intensificando i propri sforzi dopo quattro anni di cambio rotta sotto l'amministrazione Trump. In tutto il mondo, finalmente, si sta avendo maggiore consapevolezza del problema in maniera più trasversale dal pubblico al privato.

Alla COP26, i leader ed i referenti politici dei paesi partecipanti dovrebbero lavorare costruttivamente ed ascoltare scienziati ed attivisti che chiedono un'azione più rapida ed

efficace, inclusa una maggiore assistenza finanziaria per aiutare i paesi meno fortunati a unirsi seriamente alla lotta per il cambiamento climatico.

I programmi che i paesi del Mediterraneo porteranno a Glasgow saranno cruciali perché, nonostante la situazione in atto, la maggior parte di questi stati ha un vantaggio territoriale: ampi spazi e condizioni quasi ideali per le turbine eoliche offshore. Uno studio recente, che utilizza una varietà di tecnologie per elaborare dati previsionali, stima il potenziale combinato di energia eolica di tutti i 23 paesi euro mediterranei (in modo alquanto prudente) a quasi 1,5 milioni di megawatt. Si consideri che l'intera industria nucleare mondiale ha una capacità di circa 400.000 MW, ovvero meno di un terzo di quella che il Mediterraneo potrebbe produrre solamente con impianti eolici. Senza calcolare l'impiego di altre tecnologie: l'idrocinetica sia fluviale che marina (onde e maree), geotermica (on e offshore) e solare (200.000-300.000 MW).

Questa strategia darebbe una propulsione allo sviluppo di molti paesi che oggi hanno uno scarso accesso all'energia elettrica a prezzi accessibili, inoltre l'indotto relativo alle costruzioni degli impianti darebbe nuovi posti di lavoro oltre a molteplici benefici: la possibilità di sostituire i vecchi impianti di produzione più inquinanti, ridurre gradualmente l'importazione di carburanti fossili, rivendere nella rete l'eccesso di produzione energetica ed investire il ricavato in infrastrutture, politiche sociali o ulteriori impianti green.

Uno sviluppo omogeneo delle rinnovabili favorirebbe la transizione progressiva dai combustibili fossili, riducendo le emissioni di carbonio che causano il cambiamento climatico e quindi facendo gli interessi di tutti, ovunque.

Queste proiezioni positive non si avvereranno mai per osmosi. Molti paesi nel Mediterraneo hanno bisogno di assistenza

finanziaria e tecnica per mettere in pratica i progetti di conversione. L'accordo di Parigi includeva impegni economici da parte degli stati più ricchi per finanziare i paesi più bisognosi, ma molti governi non hanno rispettato l'accordo. Questo è controproducente, proprio come la mancata distribuzione del vaccino contro il COVID ai paesi del Sud del mondo, un errore imperdonabile che non solo determina la morte di persone innocenti, ma crea anche terreno fertile per nuove varianti del virus. Se la transizione verso un'energia più pulita creasse difficoltà alle popolazioni già svantaggiate, potrebbe venire a mancare il sostegno popolare verso questo percorso, con conseguenze terribili per tutti noi. Se lasciato incontrollato, il cambiamento climatico potrebbe provocare morte e distruzione ovunque creando flussi migratori ingestibili.

Roudi Baroudi conclude esortando la COP26 a produrre nuovi programmi di finanziamento da parte dei paesi ricchi verso quelli più poveri senza creare situazioni di assistenzialismo. Ci sono moltissime risorse a disposizione e c'è poco tempo per agire, quindi gli stati finanziatori non possono permettersi di sbagliare. I prestiti agevolati andranno messi a disposizione per i paesi più virtuosi che garantiranno la finalizzazione dei progetti. L'unico modo per farlo è articolare una strategia coerente per eseguire progetti rilevanti e fattibili con tempi e budget ben definiti. In particolare, i governi regionali devono dissipare i timori giustificati che, i fondi destinati ai progetti per le energie rinnovabili o ad altri strumenti di decarbonizzazione, andranno invece a riempire le tasche di funzionari locali corrotti.

Queste sono le linee guida che deve seguire quest'anno la conferenza di Glasgow. La lotta ai cambiamenti climatici è ampiamente considerata come la sfida più importante che la nostra specie abbia mai affrontato e la capacità della regione di proteggersi e di esercitare il proprio peso sarà in bilico

alla COP26. I paesi che si presentano con piani ben sviluppati per progetti concreti avranno la strada spianata per varie forme di finanziamento. Coloro che non lo faranno saranno inevitabilmente tagliati fuori.

Column: Europe's rising energy prices will force factory closures: Kemp



LONDON, Oct 1 (Reuters) – Europe's increasingly expensive gas and electricity prices are sending a strong signal to manufacturers to consider temporary plant closures and to home and office owners to turn down thermostats to conserve fuel this winter.

Front-month gas futures are now more than six times more

expensive than at this point last year, as the region struggles to import enough gas to refill its depleted storage ahead of the winter peak heating season.

Regional storage sites are still only 74.7% full, the lowest for more than a decade, and compared with a pre-pandemic five-year seasonal average of 87.4%, according to Gas Infrastructure Europe.

In the short term, Europe is unlikely to attract significantly more gas because production is fixed and there is already a worldwide shortage, which is also pushing up prices in Northeast Asia and North America.

Escalating futures prices signal traders think lower consumption will be necessary to prevent stocks eroding to critically low levels and risking fuel supplies running out this winter (<https://tmsnrt.rs/2YkKwPc>).

Rising prices will find the path of least-resistance to cut consumption – with the most price-sensitive and least politically sensitive customers forced to reduce gas and electricity use first and most deeply.

In theory, the crisis could be resolved easily by homes, offices, schools and factories turning down thermostats by 0.5-1.0 degrees this winter; the result would be an enormous fuel saving with only a minimal impact on comfort.

In practice, policymakers will be reluctant to call for thermostat reductions since it implies a policy failure and has unpopular associations with one-term U.S. President Jimmy Carter.

European governments are instead trying to shield residential and small business customers from the full force of increasing energy prices on utility bills through price caps, rebates and tax cuts.

But if the crisis continues to worsen, and especially if the

winter proves colder than normal, shielding residential customers could prove unsustainable and calls for energy conservation may become inevitable.

In the meantime, policymakers are likely to explore other fuel saving measures, including reduced street-lighting and extended closures of government buildings, offices and schools over the mid-winter holiday period.

More significant savings could be made if manufacturers close their operations temporarily, cutting consumption and potentially reselling energy into the spot market if they have already contracted to buy it.

Steeply rising energy costs will force many manufacturers to reassess their production plans this winter, especially those with energy-intensive processes and/or limited ability to raise the price of their own products.

For manufacturers, short closures have the double benefit of cutting energy costs and also driving up the price of their products, helping protect margins against rising power and gas prices.

Once enough credible plant closures and other energy-saving measures are announced futures prices are likely to moderate.

Plant closures would, however, worsen problems throughout the supply chain and intensify the upward pressure on inflation, as well as disrupting long-standing customer relationships.

But unless the winter proves mild, price rises and physical shortages of gas, coal and electricity are unlikely to remain confined to energy markets, rippling out to the rest of the economy as is already happening in China.