https://doi.org/10.15407/economyukr.2023.06.053
JEL: Q34, Q41, Q42, Q48, Q56

BILLEL DJEGHRI, PhD, Senior Lecturer in Economics
Department of Economics
Constantine 2 University - Abdelhamid Mehri
Nouvelle-Ville Ali Mendjeli BP, 67A, 25000, Constantine, Algéria
e-mail: billel.djeghri@univ-constantine2.dz
ORCID: https://orcid.org/0000-0001-8280-8393

THE REPOWEREU BATTLE PLAN TO END EUROPE'S DEPENDENCE ON RUSSIAN GAS

This article aims to highlight the lines of action around which the REPowerEU plan adopted by the European Commission in response to Russia's invasion of Ukraine is structured and through which the EU wishes to end its dependence on fossil fuels, particularly Russian ones, by saving energy, diversifying sources of supply and accelerating the transition to clean energy.

***Keywords**: European Union; Russian gas; REPowerEU plan; gas independence.*

For many years, Europe has been facing a multitude of major challenges. Firstly, an energy challenge, as Europe consumes far more resources than it produces. Secondly, an environmental challenge resulting from global warming, which implies a radical change in the way energy is produced and consumed in Europe. And finally, an economic and financial challenge that limits Europe's ability to find solutions quickly.

However, Russia's air, sea and land offensive against Ukraine on 24 February 2022, which was marked by a surge in gas prices, has plunged Europe into an unprecedented energy crisis and put the issue of energy security back on the agenda, given that Russia's war against Ukraine has had a major impact on the gas sector.

C i t a t i o n: Djeghri B. The REPowerEU battle plan to end Europe's dependence on Russian gas. *Economy of Ukraine*. 2023. No. 6. P. 53—69. https://doi.org/10.15407/economyukr.2023.06.053

Indeed, in 2021, the EU consumed 400 billion m^3 of gas, 45% of which came from Russia, i.e. 155 billion m^3 [1]. Russia is the leading supplier of natural gas to the EU-27 [1]. Russia's invasion of Ukraine therefore poses a very serious threat to Europe's security of gas supply and pushes up the price of gas to unprecedented levels, although it is important to mention that dependence on Russian gas should be measured along two axes: the importance of gas in the national energy mix and the importance of Russian gas in national gas consumption. For example, countries with a high share of gas in their national consumption, such as the United Kingdom, the Netherlands and Romania, import little Russian gas and are only moderately affected by the Russian-Ukrainian conflict, whereas countries such as Belgium, Finland and the Czech Republic are highly dependent on Russian gas imports, albeit for a limited share of their energy mix.

Europe is therefore working on an alternative emergency strategy. The European energy ministers have been debating for months to find a way out of the crisis. For its part, the European Commission has put the REPowerEU plan on the table, with the ambition of becoming independent of Russian gas by 2027.

More than a question of feasibility, it is the very short time frame that Europeans face in their quest for independence from Russian gas that is frightening. Caught by the throat by the invasion of Ukraine, the EU cannot avoid any eventuality, not even the worst. It finds itself in a very bleak scenario in which Russia has deliberately stopped its exports to Poland, Bulgaria and Finland [2], just as it has sharply reduced its shipments to others such as Germany or Italy. France has not been supplied with Russian gas for months.

For this reason, the EU countries have closely coordinated their actions to combat this price increase and scarcity of supply, especially as they could not continue to be dependent on a supplier with whom they differ on many issues in various fields. The coordination of the EU countries' actions has therefore resulted in the presentation of the REPowerEU plan, which aims to make Europe independent of Russian fossil fuels well before 2030.

And in the event of even greater deterioration, the last and most radical solution is to cut off the gas supply. This is called load shedding. It is not a matter of blindly cutting off gas, but of identifying the biggest consumers, often industrialists, and targeting the essential or less essential sectors. The aim is to protect consumers as much as possible and to continue to supply hospitals, of course. Moreover, in April 2022, France adopted a decree along these lines. The text authorises gas operators to turn off the tap if necessary. At the end of June 2022, Germany activated level two of its emergency plan (on a scale of three) in anticipation of a gas shortage.

The fact remains that in this quest for freedom, Europe's solidarity is being put to the test. The degree of dependence on Russian gas varies greatly from one country to another [3]. While many Central and Eastern European countries,

[1] French Senate. Union européenne — Russie: quelles relations? Paris, France, 2023. URL: https://www.senat.fr/rap/r06-307/r06-30714.html (accessed on: 20/02/2023).

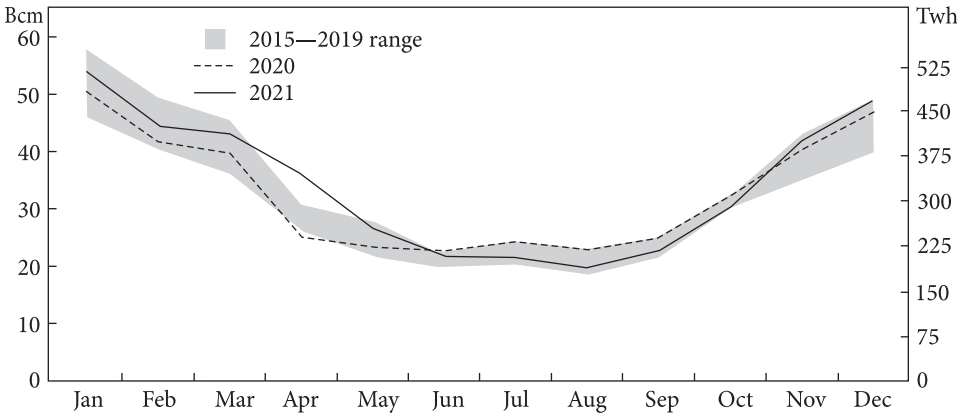

Fig. 1. EU gas consumption
Source: Energy balance flow for, Directorates-General of the European Commission. Eurostat, 2022. URL: https://energyindustryreview.com/analysis/eu-gas-consumption-and-production-in-q1-2020/ (accessed on: 17/03/2023).

such as Slovakia and the Baltic States, depend entirely on Russia for their gas supplies, the share of Russian gas is 80% in Poland, 65% in Austria, 37% in Germany and Italy and 24% in France [2]. Europe must therefore release the necessary funds to help those countries that will be more affected than others.

For this is also Russia's interest: to divide Europe through the energy prism and thwart the EU's stated objectives. The more worried European countries are, the more they will tend to tone down their support for Ukraine. The Russian leadership figures that people will not last long in their support for the Ukrainians if this results in shortages, a new price hike, or both.

While the EU has accelerated its timetable for reducing its imports of Russian oil, the path may be more tortuous for gas. The EU must be prepared for the fact that the European timetable will not necessarily go smoothly. Russia will disrupt the European agenda.

Politically, economically and socially, a gas shortage is inconceivable for the EU. Inconceivable, but not impossible, which is why the emergency measures of the REPowerEU plan and the accompanying complementary measures are so important.

IMPORTANCE OF GAS FOR THE EUROPEAN UNION

In 2021, the 27 EU countries consumed 412 billion m^3 of gas [2] as shown in the following Figure 1.

Gas is mainly used in Europe for power generation, home heating and industrial processes as shown in the Figure 2. More than 30% of EU households

[2] Ibid.

[3] European Commission, 2021 URL: https://www.consilium.europa.eu/fr/infographics/eu-gas-supply/ (accessed on: 17/03/2023).

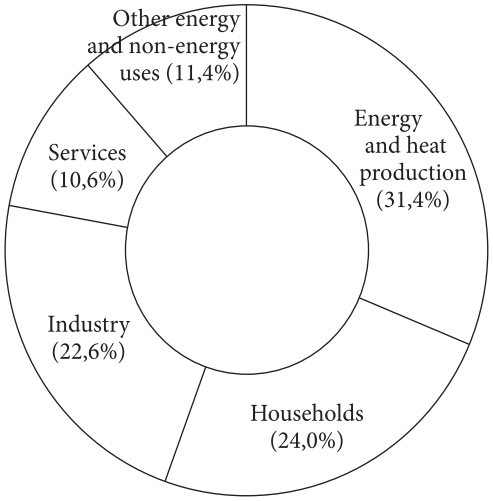

Fig. 2. Gas use in the EU
Source: Eurostat, 2023. https://www.consilium.europa.eu/fr/infographics/eu-gas-supply/ (accessed on: 19/03/2023).

use gas to heat their homes, so the situation is perilous in Europe, which is at the epicentre of energy market turbulence as highlighted by the Executive Director of the International Energy Agency [4].

More than 30% is used for the production of electricity and heat, 24% by households, 22.6% by industry and 10.6% by the service industry. Other energy and non-energy uses represent just over 11%. It should be noted that European gas production (excluding Russia) has been declining since the mid-2000s, despite strong growth in Norwegian production over the last 30 years as shown in the following Figure 3.

The EU's domestic production represents 12% of its consumption in 2022 [6]. This domestic production of the EU-27 (excluding the UK) appears to be in terminal decline, given the state of reserves and the maturity of production. The first factor in this decline is the drying up of many fields in the North Sea, a phenomenon that also concerns the United Kingdom, whose extractions began to decline in 2000.

In this context, it is clear that if Russian gas stops flowing, alternative supply measures will not be enough. Indeed, Russia is not only the world's largest gas exporter, but also the largest exporter of gas to Europe [7]. Moreover, it has always been the largest supplier of natural gas to the EU [8], which is why Europe needs to consider contingency plans such as REPowerEU, especially as gas imports from Russia are diverse and varied, as shown in the following Figure 4.

EUROPEAN UNION REPOWEREU PLAN

Ukraine, torn between East and West, has already been confronted with an ultimatum from Russia in the spring of 2014, the consequences of which were limited [9], which has not been the case since 24 February 2022, when the Russian offensive in Ukraine began. A war that has come to represent a military and civilisational challenge for both the Western world and Russia, similar to many of the great battles of the past: Pearl Harbour, Stalingrad, etc [10, p. 68].

It is worth recalling that the Russian Federation and Ukraine are indeed two distinct and internationally recognised states, but their respective histories are closely intertwined and their populations very close [11, p. 95], yet for

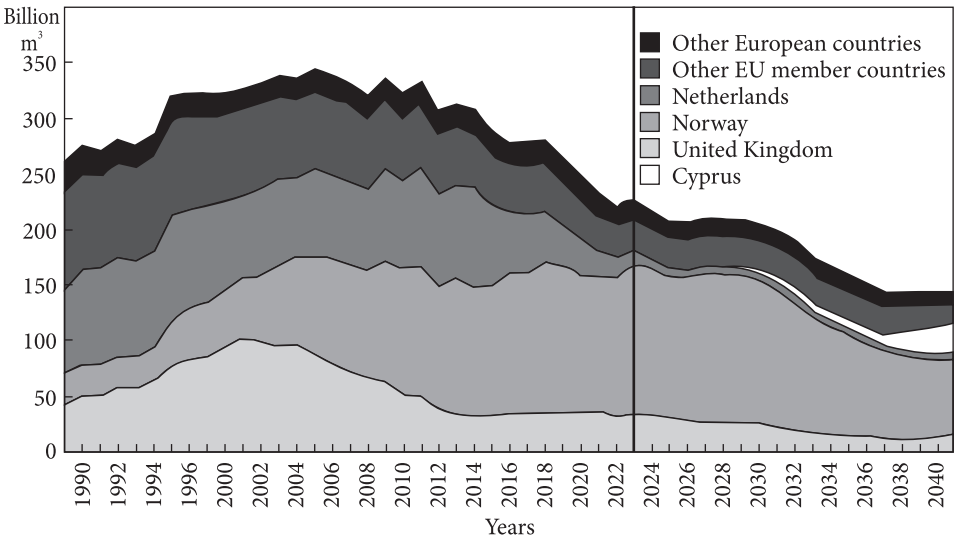

Fig. 3. Europe's gas production (excluding Russia)
Source: [5, p. 12].

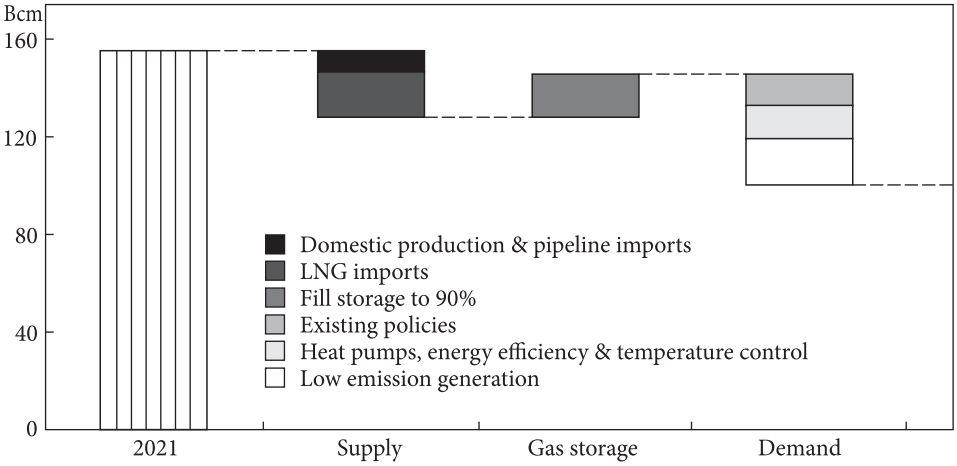

Fig. 4. EU gas imports from Russia
Source: International Energy Agency, 2022. URL: https://www.iea.org/news/how-europe-can-cut-natural-gas-imports-from-russia-significantly-within-a-year (accessed on: 20/03/2023).

Ukrainian elites, Russia does not want to recognise an identity of its own and does not accept Ukraine's independence unless it is compatible with Russian interests [12, p. 258]. To quote the first Ukrainian president, Leonid Kravchuk, 'Russia is the key problem of Ukraine' [13, p. 49].

These are the reasons why several heads of government early on thought that special attention should be paid to the Russian-Ukrainian relationship [14, p. 9]. The demonstration in late 2013 in Ukraine following the Ukrainian government's refusal to sign a new agreement with the EU, followed by Pre-

sident Yanukovych's flight from Ukraine and Russia's annexation of Crimea, had already attracted global attention [15].

In the end, history proved them right. This attention was "rather belatedly" translated into the adoption by the European Commission of several proposals under the REPowerEU plan, which aims to reduce the EU's dependence on Russian gas by 100 % from 2027. Today, although the EU's dependence on Russia has been reduced to reasonable proportions, gas is still Europe's 'Achilles heel' [16, p. 72].

The plan sets out a series of measures to rapidly reduce dependence on Russian fossil fuels and accelerate the green transition, while strengthening the resilience of the EU's energy system.

It is based on the development of the EU's collaboration with its international partners to find alternative sources of energy supply, including gas. It is also based on the savings that every European citizen, business and organisation is called upon to make on the basis that even small changes in behaviour can make a significant difference to gas and other consumption. And finally, it is based on accelerating the transition to clean energy, i.e. to renewable energies, including alternatives to gas, by stimulating massive investment in the renewable energy sector and enabling industry and transport to replace fossil fuels as quickly as possible.

To achieve these goals, the REPowerEU plan is therefore based on three pillars that we will analyse through the prism of energy justice, which takes into account the fair distribution of the benefits and burdens of the energy system [17].

1. Diversification of gas supply. Europe plans to diversify its gas supply sources through increased imports of liquefied natural gas (LNG) and pipeline gas from non-Russian suppliers, as well as increased production and import volumes of biomethane and hydrogen.

The unprecedented imports of liquefied natural gas in January 2022 ensured security of gas supply for the winter of 2022. The EU could import an additional 50 bcm of LNG from Qatar, the US, Egypt and West Africa on an annual basis. With the diversification of pipeline supplies from Azerbaijan, Algeria and Norway, the EU could reduce its energy dependence on Russian gas by an additional 10 bcm [4].

Since Russia's invasion of Ukraine, gas imports from Russia to the EU have been significantly reduced (Fig. 5). This has been offset mainly by a sharp increase in liquefied natural gas (LNG) imports, particularly from the US, whose Secretary of State Antony Blinken has said "it's bigger than a conflict between two countries. It's bigger than Russia and NATO. It's a crisis with global consequences, and it requires global attention and action" [18].

Russia's market share was around 45% until early 2021. This share decreased to around 40% the following year [19]. Since then, the share of Russian gas has continued to decline and the market shares of other suppliers have continued

[4] International Energy Agency, 2022. URL: https://www.iea.org/reports/never-too-early-to-prepare-for-next-winter (accessed on: 05/04/2023).

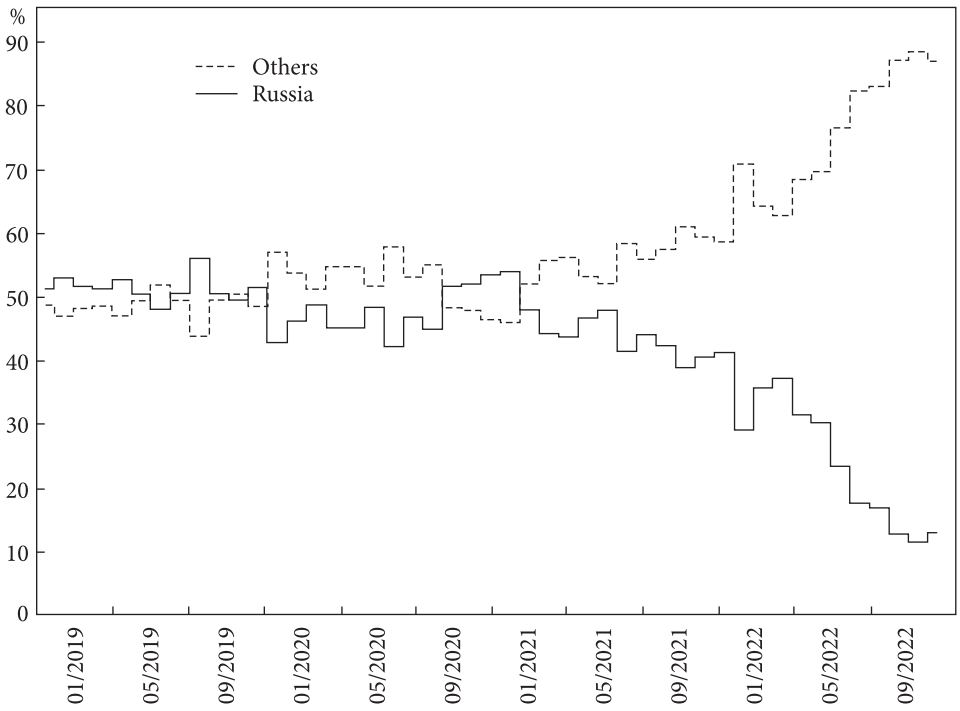

Fig. 5. Share of gas delivered to the EU by Russia
Source: European Commission, 2022. URL: https://www.consilium.europa.eu/fr/infographics/eu-gas-supply/ (accessed on: 19/03/2023).

to grow. This process accelerated in 2022 in particular. Since June 2022, Russia's share of EU gas imports has been below 20%. In November 2022, it stood at 12.9%. Between January and November 2022, Russia (pipeline gas and LNG imports) accounted for less than a quarter of gas imports into the EU. Another quarter came from Norway, and 11.6% from Algeria. LNG imports (excluding Russia) mainly from the US, Qatar and Nigeria amounted to 25.7% [5].

It is important to mention that the relationship with Russia in this area has regularly been a divisive political factor among EU members [20, p. 8]. Indeed, before the Russian-Ukrainian war, important European states (led by Germany and France) chose to increase their dependence on Russian gaswhile they already used the adjective "alternative" to designate energy resources located beyond Russian territory [21, p. 104], which clearly demonstrates that these European countries were aware of their dependence on Russian gas, but did not put in place any serious policy to reduce this dependence. Their choices were motivated by greed, as expressed by the Vice-President of the European Commission [6], a greed that Europe is now paying a high price both economically and morally.

[5] Council of the European Union, 2022. URL: https://www.consilium.europa.eu/en/infographics/eu-gas-supply/ (accessed on: 02/04/2023).

[6] Vestager M. European Commission, Brussels, Belgium, 2022. URL: https://publika.skema.edu/war-ukraine-escalation-risk-geopolitical-reshuffle/ (accessed on: 06/04/2023).

Indeed, as a result of the drop in Russian gas supplies to Europe, the wholesale price of gas has increased eightfold, bringing with it the price of electricity. The inability of the EU-27 to implement a total embargo on Russian hydrocarbons has led them, since the beginning of the war, to pay 120 billion euros in oil and gas to Russia, i.e. double the Russian military budget in 2021 [22, p. 10].

It should be mentioned that for EU countries, diversification of gas supply sources must necessarily be accompanied by diversification of supply routes from Russia to the West. The main problem for the EU is therefore to design more pipelines to meet its growing energy needs. In this regard, the issue of harmonization of gas supply to the EU countries requires that these countries overcome all obstacles to harmonization of gas supply and make all possible efforts that will allow them to diversify and improve the quality of gas supply [21, p. 107-110].

2. Reduction in the use of fossil fuels. The REPowerEU measures reinforce the existing Fit for 55 targets [5, p. 12], which if fully implemented would reduce EU gas consumption by 30% by 2030. The European Commission has proposed to strengthen the proposals of the "Fit for 55" package, by increasing the binding target of reducing energy consumption from 9% to 13% by passing on the extra cost of gas to consumers through higher heating fuel prices [23, p. 8]. The energy savings the EU will make today will help it prepare for the potential challenges of the winters of 2023. As it is known that "The cheapest and safest energy is the energy we don't consume", it is therefore essential for the EU to make energy savings in all sectors: energy, buildings, transport.

On 20 July 2022, faced with further cuts in Russian gas supplies, the European Commission decided to accelerate its actions to free itself from its dependence on Russian gas. Thus, the Commission has proposed to reduce gas demand, with a clear objective: to reduce gas consumption in Europe by 15% by spring 2023. In addition, in the event of a serious risk of gas shortage or exceptionally high demand, the Commission will be able to trigger, after consulting the Member States, a "Union alert" on security of supply, which would impose a mandatory reduction in gas demand on all Member States.

All consumers, public administrations, households, public building owners, electricity suppliers and industry can and should take action to save gas. Simple individual actions can help reduce consumption. For example, turning down the thermostat by one degree saves the EU 10 billion m^3 of Russian gas imports.

3. Massive development of renewable energies. The REPowerEU Plan foresees a massive deployment of renewable energy. The European Commission proposes to increase the 2030 renewable energy target from 40% to 45%. This would bring total renewable energy capacity to 1236 GW by 2030, up from 511 GW today[7].

The European Commission has also presented new proposals to unlock the potential of solar energy as a major renewable energy source in the EU. By

[7] European Commission, 2022. URL: https://france.representation.ec.europa.eu/informations/leurope-peut-elle-se-passer-du-gaz-russe-2022-10-20_fr (accessed on: 02/04/2023).

accelerating the deployment of rooftop photovoltaic systems by 15 TWh in 2022, the EU could save an additional 2.5 billion m3 of gas. In addition, the EU's specific solar energy strategy aims to double solar PV capacity by 2025 and install 600 GW of generation capacity by 2030 [8].

In concrete terms, this translates into a legal obligation for certain categories of buildings to be equipped with solar panels. All new public and commercial buildings over 250 m^3 must be equipped with solar panels by 2026 and all new residential buildings by 2029.

The public consultation launched by the European Commission on solar energy has confirmed that one of the biggest obstacles to the deployment of rooftop photovoltaic systems is the lengthy and complex administrative permitting process. The Commission will make further legislative proposals to ensure that permitting times are reduced to a maximum of 3 months for rooftop solar installations.

ADDITIONAL MEASURES TO THE REPOWEREU PLAN

The implementation of the measures recommended in the REPowerEU plan will be accompanied by two complementary emergency measures. The first is a mechanism to cap the price of gas, while the second is the construction of new nuclear reactors, the extension of the life expectancy of some others or the restarting of others that were shut down since the Fukushima nuclear accident.

1. Gas price cap. Following the measures undertaken by EU countries under the REPowerEU plan to reduce their dependence on Russian gas, EU energy ministers reached an agreement on 19 December 2022 to limit excessive gas prices. The agreement came after months of debate on whether or not to implement a price cap on imports into Europe.

Under the agreement, gas prices on the EU's main trading point will be capped if they exceed €180 per megawatt hour (MWh) for three consecutive working days and if they are more than €35/MWh higher than world gas prices for those three days [24].

"From the start, we had a common objective: to keep prices under control while preserving security of supply. Today, we have achieved this objective", said the Belgian Minister of Energy [9]. Belgium was one of the main supporters of the cap.

Under this measure, known as the "market correction mechanism", the prices of one-month, three-month and one-year derivatives will be capped at a certain level depending on the price of liquefied natural gas (LNG) on the world market.

---

[8] Repowereu: Le plan de l'Europe vise à doubler la capacité solaire photovoltaïque d'ici à 2025. Actu Europe, Grand programme, Politique (20-05-2022). *L'Echo du Solaire.* 2022. May 20. URL: https://www.lechodusolaire.fr/repowereu-le-plan-de-leurope-vise-a-doubler-la-capacite-solaire-photovoltaique-dici-a-2025/ (accessed on: 02/04/2023).

[9] Van de Straeten T. Ministry of Energy. Brussels, Belgium. 2022. URL: https://www.cnbc.com/2022/12/19/european-union-approves-cap-on-natural-gas-prices.html

The mechanism, which will be implemented for one year, could also be rolled out to other trade points through a second legislative proposal from the European Commission, expected by spring 2023.

However, while Poland welcomed the EU ministers' agreement on a gas price cap of €180/MWh, some countries, notably Germany, were not convinced by the measure [24]. In their view, a price cap could jeopardise security of supply by restricting the ability of companies to buy LNG on world markets.

For his part, German Vice-Chancellor Robert Habeck stressed that new measures had been taken to avoid a gas shortage. "I can say that with the instruments we have introduced as safety buffers, we have enough instruments to avoid this shortage" [10].

In the end, Berlin supported the proposal in exchange for more ambitious renewable energy legislation, but Hungary voted against the measure and the Netherlands and Austria abstained.

"I continue to be concerned about major disruptions in the European energy market, the financial implications and, above all, I am concerned about the security of the European energy supply," said the Dutch Energy Minister [11].

The cap has been in place since 15 February 2023 for a period of one year. The EU Agency for the Cooperation of Energy Regulators (ACER) will monitor the markets and, if the thresholds are reached, will indicate on its website that transactions cannot exceed a "dynamic supply limit".

This limit will be composed of the LNG reference price plus €35/MWh. A floor price will also be introduced: even if the LNG reference price is below €145/MWh, the price cannot be lower than this amount plus €35 [12].

Once activated, the dynamic limit will be in place for at least 20 working days. It can be deactivated automatically if the dynamic supply limit is below 180€/MWh for three consecutive working days or if an energy emergency is declared at regional or Union level [13].

However, the limits that trigger the cap are considerably lower than those initially proposed by the European Commission. Indeed, the original proposal for a gas price cap was described by many countries as unnecessary, as it would not have prevented prices from spiking in August 2022. Indeed, some countries believe that a lower cap means that the mechanism is more likely to come into effect and be in place for longer.

---

[10] Habeck R. Chancellerie fédérale. Berlin, Germany, 2022. URL: https://www.euractiv.com/section/energy-environment/news/eu-seals-deal-on-gas-price-cap-after-months-of-wrangling/

[11] Jetten R. Ministry of Climate and Energy Policy. Amsterdam, Netherlands, 2022. URL: https://watt-logic.com/2022/12/23/eu-gas-price-cap/

[12] Sikela J. Ministry of Industry and Trade. Prague, Czech Republic, 2022. URL: https://www.afr.com/world/europe/eu-countries-agree-gas-price-cap-to-contain-energy-crisis-20221220-p5c7mq

[13] Council of the European Union, 2022. URL: https://www.consilium.europa.eu/en/press/press-releases/2022/12/19/council-agrees-on-temporary-mechanism-to-limit-excessive-gas-prices/

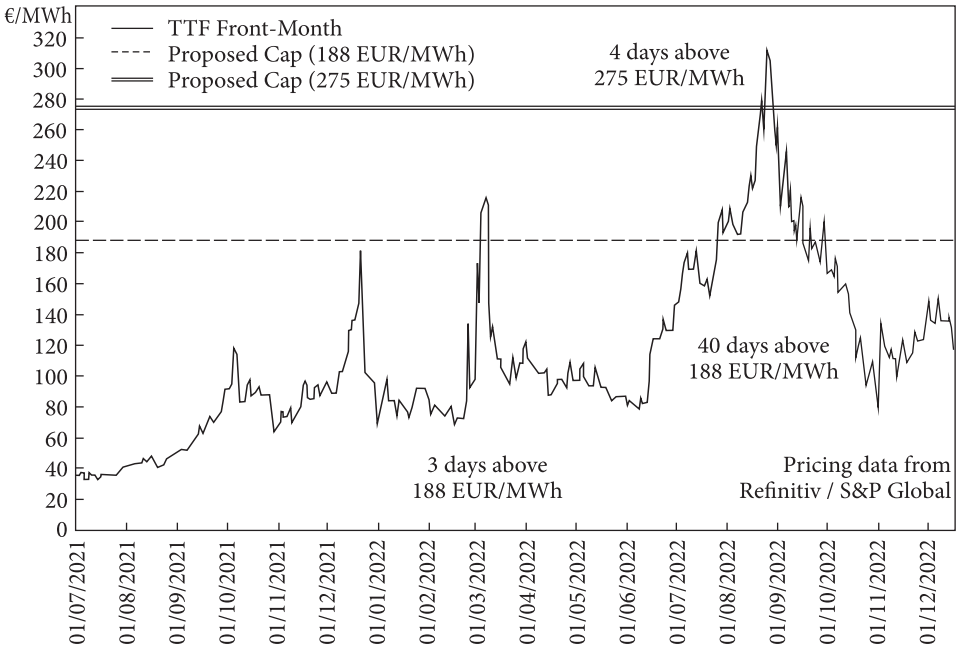

Fig. 6. TTF Front-Month Price vs Proposed Cap, €/MWh
Source: S&P Global, 2022. URL: https://www.spglobal.com/commodityinsights/en/ci/research-analysis/energy.html

For example, at the end of 2022, gas prices on the main EU gas trading point exceeded €188/MWh (a level previously set for the cap) on 43 days and consecutively on 40 days (Fig. 6).

When asked about the reduction in the cap compared to the Commission's original proposal, the European Commissioner for Energy said: 'We warned Member States of the risks and if the parameters were to be reduced, the safeguards would have to be strengthened and that's exactly what happened. Now additional protective measures have been put in place" [14].

2. Return to nuclear power. Nuclear energy is the European Union's leading source of low-carbon electricity. As such, it plays a major role in the face of soaring gas prices. In its March 2022 communication, the International Energy Agency explains that if the four reactors due to close this year in the European Union (one in Belgium and three in Germany) were kept in operation, this would save one billion m^3 of gas per month, or about 8% of the gas imported by the EU from Russia [15].

The situation is even more serious than that because the IEA has only quantified the impact of the closures planned for this year, yet other reactors

[14] Kadri S. European Energy Commission, Brussels, Belgium. 2022. URL: https://www.euractiv.com/section/energy-environment/news/eu-seals-deal-on-gas-price-cap-after-months-of-wrangling/

[15] International Energy Agency, 2022. URL: https://www.cea.fr/english/Documents/european-positions/2022-06-REPowerEU-english.pdf

are due to close in the coming years in Europe. As the European Union seeks to urgently reduce its dependence on Russian gas by all means, it is essential that it considers this lever and mentions it clearly.

These are the reasons why the European energy scene has seen a dramatic turnaround in the future of nuclear power since Russia's invasion of Ukraine. As the invasion turned energy shortages into a full-blown energy crisis, nuclear power plants slated for closure across Europe were given a last-minute reprieve.

France, which had planned to reduce its reliance on nuclear power during President Macron's first term in office, has backtracked and now plans to build six new reactors and a good dozen small modular reactors. In recent months, French supporters of nuclear power have received some reinforcement. Indeed, nuclear power has its defenders, especially for its very low carbon dioxide emissions, but also its detractors, notably because of the delicate storage of waste [25].

The UK has launched an ambitious plan to build eight new reactors and 16 small modular reactors, while Germany, an anti-nuclear country, has given in to the reality of the geopolitical energy context and extended the life of its last three remaining nuclear plants [26 p. 18].

Even environmental activist Greta Thunberg is no longer opposed to nuclear power. On 12 October 2022, the young activist was invited to discuss the country's troubled energy policy on the German television channel ARD. In response to a question from the journalist about the value of nuclear energy today, the young woman unexpectedly replied: "Since the nuclear power plants are there, it would be a mistake to close them down and resort to coal-fired power plants. Greta Thunberg is undoubtedly showing common sense: in an emergency, especially since gas prices are soaring and hitting the wallets of German companies and individuals, who are very dependent on Russian gas, it is better to run nuclear reactors, which emit about 70 times less CO_2 into the air than coal-fired power stations [27].

In October 2021, ministers from ten countries signed a platform in support of nuclear generation [25]. The signatories (France, Romania, Czech Republic, Finland, Slovakia, Croatia, Slovenia, Bulgaria, Poland and Hungary) [16] claim that nuclear energy protects European consumers from price volatility, while gas prices have been rising sharply for several months. In sum, there are about ten pro-nuclear states in the European Union, including states that were not pro-nuclear and are becoming so.

In parallel to the signing of this platform, other countries have also put forward their nuclear energy policies. The UK government has announced its intention to decarbonise the country's electricity system by 2035, instead of

[16] La France et neuf autres pays européens plaident pour le nucléaire. *La Tribune*. 2021. Oct 11. URL: https://www.latribune.fr/entreprises-finance/industrie/energie-environnement/la-france-et-neuf-autres-pays-europeens-plaident-pour-le-nucleaire-894093.html

the previous target of 2050. The plan aims to build a secure domestic energy sector, including nuclear power, which reduces dependence on fossil fuels and exposure to gas price volatility.

For its part, Finland, which generates 30% of its electricity from nuclear power, has also confirmed that it will defend nuclear power in the European Green Taxonomy [17]. This move demonstrates the shift in the Finnish Green Party (a member of the government) in recent years. The Green Party was historically opposed to nuclear power, but this ideological opposition has given way to a more pragmatic orientation in recent years.

The return to nuclear power is a ray of hope for Europe in a very dark geopolitical context. Despite significant progress in the cost and viability of renewables, the energy crisis reminds Europe of the world's continued dependence on fossil fuels.

Europe, arguably the richest and greenest area of the world economy and a region that has invested trillions of euros over the past 20 years in its transition to renewable energy, has been forced into a mad dash to replace Russian gas with nuclear power.

CONCLUSION

Since the outbreak of the Russian-Ukrainian conflict, Europe has been trying to guarantee both its energy independence and its climate neutrality. In order to move away from Russian hydrocarbons, and gas in particular, as quickly as possible, the European Commission has outlined a course of action in an action plan entitled REPowerEU, together with secondary emergency measures.

The plan includes a series of measures to address, among other things, rising gas prices in Europe and to replenish gas stocks for the coming winter. While Europe has been facing rising gas prices for several months, the current uncertainty of supply is compounding the problem.

The current context makes it imperative to put in place a common EU energy policy in the gas sector in order to guarantee all Europeans, wherever they are, their security of gas supply at reasonable and stable prices while ensuring sustainable development and the transition to a low carbon Union.

Such a common policy in the gas sector will not be achieved in one go, and the necessary discussions will have to take time. But Europe cannot afford to wait indefinitely, and despite the measures decided in the framework of the REPowerEU plan and the complementary emergency measures that accompany them, Europe is experiencing recurrent difficulties in implementing such a common policy. Moreover, isolated national solutions, for both large and small states, are showing their limits, and further increase the

[17] Dix membres de l'UE plaident en faveur du nucléaire. *Forum Nuclear.* 2021. Oct 13. URL: https://www.forumnucleaire.be/actus/nouvelle/dix-membres-de-lue-plaident-en-faveur-du-nucleaire

risk of divergent, even conflicting, responses to the challenges posed by the Russian-Ukrainian war.

In order to overcome the multiple blocking factors, and the doubts as to the current capacity of the European Union to face these challenges together, a new approach must be set in motion, aiming at a more advanced level of integration and solidarity. Because gas sector issues have their own specificities, which are not limited to securing gas supply at very reasonable prices, they call for specific rules and a comprehensive approach, integrating economic, environmental, political and strategic aspects.

The European Union must be able to act as a subject state vis-à-vis its external partners, whether gas producing or transit countries, in order to ensure that no third country can reduce its gas supplies in a targeted manner. This implies being able to pool adequate supply capacities.

Finally, in the event of a major gas crisis, common strategic reserves must be available and distributed throughout Europe in a spirit of solidarity. This is why we recommend in our study that priority be given to:

• the establishment of ambitious economic instruments for the financing of joint research and development projects in the gas sector;

• deepening and structuring cooperation around the establishment of genuine energy networks with a European dimension;

• the creation of gas purchasing groups to facilitate supplies from foreign suppliers, thus giving strength and coherence to the EU's external policy in this area.

These various seemingly technical and limited recommendations will nevertheless bring about a decisive change, paving the way for more cooperation and solidarity in the gas sector.

REFERENCES

1. Messaoudi F. Analyse: Crise énergétique en Europe, l'Afrique peut-elle substituer au gaz russe? *Energy Magazine.* 2022. 22 août. URL: https://www.energymagazinedz.com/2022/08/22/analyse-crise-energetique-en-europe-lafrique-peut-elle-substituer-au-gaz-russe/
2. Sinnes R. Union européenne: l'émancipation du gaz russe à l'épreuve du temps, L'actualité de l'Union européenne Ukraine-Russie: la guerre. *TV5 Monde.* 2022. Jul 15. URL: https://information.tv5monde.com/international/union-europeenne-lemancipation-du-gaz-russe-lepreuve-du-temps-910415
3. Bret C., Parmentier F. Les relations gazières euro-russes ou l'aigle bicéphale de la diversification. *Outre-Terre.* 2014. Vol. 41. No. 4. pp. 334-354. https://doi.org/10.3917/oute1.041.0334
4. Birol Fatif. Coordinated actions across Europe are essential to prevent a major gas crunch: Here are 5 immediate measures. *International Energy Agency.* 2022. Jul 18. URL: https://www.iea.org/commentaries/coordinated-actions-across-europe-are-essential-to-prevent-a-major-gas-crunch-here-are-5-immediate-measures
5. Auzanneau M., Schneider G., Stokking M. Gaz naturel: quels risques pour l'approvisionnement de l'Union européenne? 2025, 2030 et au-delà, Direction générale des

relations internationales et de la stratégie, Department of Defense. Paris, France, pp. 11-22. URL: https://theshiftproject.org/wp-content/uploads/2022/12/The-Shift-Project-Risks-facing-EU-natural-gas-supply-Full-Report.pdf
6. Loux G. Nouveaux approvisionnements gaziers européen: comment le conflit en Ukraine redessine les rapports de force euro-méditerranéens. *Portail de L'LE.* 2023. Jan 27. URL: https://portail-ie.fr/analysis/4252/nouveaux-approvisionnements-gaziers-europeen-comment-le-conflit-en-ukraine-redessine-les-rapports-de-force-euro-mediterraneens
7. Bhattarai A., Romm T., Siegel R. U.S. economy appeared ready to surge, but Russia's invasion of Ukraine could send shockwaves. *The Washington Post*. 2022. Feb 25. URL: https://www.washingtonpost.com/business/2022/02/25/economy-us-russia-ukraine-gas/
8. McWilliams B., Sgaravatti G., Tagliapietra S., Zachmann G. Can Europe survive painlessly without Russian gas? *Bruegel-Blogs.* 2022. Jan 27. URL: https://www.bruegel.org/blog-post/can-europe-survive-painlessly-without-russian-gas
9. Simonet L. La crise du gaz de 2014 entre l'Ukraine et la Russie: beaucoup de bruit pour rien ? *Géoéconomie*, 2014, No. 71, pp. 95-118. URL: https://www.cairn.info/revue-geoeconomie-2014-4-page-95.htm
10. Berg E. Ukraine: quelles sorties de guerre? *Revue Défense Nationale,* 2023, Vol. 857, No. 2, pp. 66-76. https://doi.org/10.3917/rdna.857.0066
11. Vinet G. L'actuelle guerre de la Russie en Ukraine: une analyse multidimensionnelle. *Revue Défense Nationale,* 2023, Vol. 857, No. 2, pp. 93-100. https://doi.org/10.3917/rdna.857.0093
12. Avioutskii V. La guerre du gaz: gestion d'une rivalité commerciale russo-ukrainienne. *Outre-Terre*, 2007, Vol. 19, No. 2, pp. 249-267. URL: https://www.cairn.info/revue-outre-terre1-2007-2-page-249.htm
13. Alexandrov O. Le facteur russe dans la politique de sécurité ukrainienne. *Politique étrangère*, 1994, Vol. 59, No. 1, pp. 49-59. URL: https://www.persee.fr/doc/polit_0032-342x_1994_num_59_1_4247
14. Soľčanyk R. Ukraine and Russia: The post-soviet transition. Lanham, Rowman & Littlefield, 2001, pp. 1-49.
15. Dragneva-Lewers R., Wolczuk K. Ukraine Between the EU and Russia: The Integration Challenge. Palgrave Pivot London, 2016. 148 p. https://doi.org/10.1057/9781137516268
16. De Montesquiou A. L'énergie: le talon d'Achille de l'Europe, Délégation pour l'Union européenne. *Rapport d'information*, 2006, No. 259, pp. 39-57. URL: https://www.vie-publique.fr/rapport/28287-lenergie-le-talon-dachille-de-leurope
17. Sovacool B.K., Burke M., Baker L., Kotikalapudi C.K., Wlokas H. New frontiers and conceptual frameworks for energy justice. *Energy Policy*, 2017, Vol. 105, Iss. C, pp. 677-691. URL: https://econpapers.repec.org/article/eeeenepol/v_3a105_3ay_3a2017_3ai_3ac_3ap_3a677-691.htm
18. Blinken A. US Secretary of State as he stated. U.S. Department of State, Washington, USA, 2022. URL: https://www.dw.com/en/antony-blinken-says-russia-risks-crisis-with-global-consequences/a-60490736
19. Wiseman P., Mchugh D. Economic dangers from Russia's invasion ripple across Globe. *AP News*. 2022. Mar 02. URL: https://apnews.com/article/russia-ukraine-vladimir-putin-coronavirus-pandemic-business-health-9478a9825c9abfde5f6505bd34b2998c

20. Noel P. Beyond dependence: How to deal with Russian gas. European Council on Foreign Relations, Policy Brief, ECFR, 2008. 18 p. URL: https://www.files.ethz.ch/isn/93632/Beyond_Dependence_1108.pdf
21. Papava V., Tokmazishvili M. Russian Energy Politics and the EU: How to Change the Paradigm. *Caucasian Review on International Affairs*, 2010, Vol. 4 (2), pp. 103-111. URL: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2182404
22. Nguyen P., Pellerin-Carlin T. La solidarité énergétique à l'épreuve de l'hiver. *Esprit*, 2023, No. 1-2, pp. 10-13. https://doi.org/10.3917/espri.2301.0010
23. Faria P.E. Quelques semaines après la présentation des — propositions législatives du paquet "Ajustement à". Brussels, Belgium, European Economic and Social Committee, 2008, pp. 1-8. URL: https://policycommons.net/artifacts/2275897/quelques-semaines-apres-la-presentation-des/3035872/
24. Kira T. L'UE parvient enfin à un accord sur le plafonnement du prix du gaz. *Euroactiv*. 2022. Dec 20. URL: https://www.euractiv.fr/section/energie/news/lue-parvient-enfin-a-un-accord-sur-le-plafonnement-du-prix-du-gaz/
25. Pécout A. L'énergie nucléaire compte de plus en plus de partisans en Europe. *Journal Le Monde*. 2022. Feb 03. URL: https://www.lemonde.fr/economie/article/2022/02/03/plusieurs-etats-europeens-se-sont-rallies-a-la-defense-du-nucleaire_6112135_3234.html
26. Nordhaus T., Lloyd J. La ruée sur l'énergie. Finance & Development, *Quarterly publication of the International Monetary Fund*, 2022, Vol. 59, No. 4, pp. 18-20. URL: https://www.imf.org/fr/Publications/fandd/issues/2022/12
27. Revol M. En Europe, le "come-back" du nucléaire. *Le Point*. 2022. Oct 26. URL: https://www.lepoint.fr/economie/en-europe-le-come-back-du-nucleaire-26-10-2022-2495297_28.php#11

Received on April 27, 2023
Reviewed on May 15, 2023
Revised on May 17, 2023
Signed for printing on May 18, 2023

Біллел Джегрі, доктор філософії,
старший викладач економіки кафедри економіки
Університет Константіна 2 імені Абдельгаміда Мегрі
а/с 67А, м. Алі Менджелі, 25000, Константіна, Алжир

ДІЙОВИЙ ПЛАН REPOWEREU ДЛЯ ПОДОЛАННЯ ЗАЛЕЖНОСТІ ЄВРОПИ ВІД РОСІЙСЬКОГО ГАЗУ

Через вісім років після анексії Криму РФ розв'язала один з наймасштабніших на пострадянському просторі воєнно-дипломатичних конфліктів. Цей конфлікт спричиняє численні потрясіння, серед яких чільне місце належить європейській енергетичній безпеці. Особливо потерпає Європа, яка сильно залежить від російського газу.

На запрошення глав держав і урядів Європейського Союзу, які зібралися на Версальському саміті 10—11 березня 2022 р., Європейська комісія, яка раптово усвідомила свою залежність від російського газу, представила план REPowerEU,

що має на меті відповісти на наслідки війни в Україні, зробивши ЄС незалежним від російського викопного палива, особливо газу.

Проаналізовано напрями дій, навколо яких побудований план Європейського Союзу REPowerEU, щодо усунення залежності від російського газу, а також додаткові заходи, які його супроводжують. Розглянуто європейський газовий ринок, підкреслено важливість газу для Європи та її залежність від російського газу. Описано серію заходів, ужитих у рамках плану REPowerEU, які спрямовані на швидке зменшення залежності від російського газу і прискорення «зеленого» переходу з одночасним підвищенням стійкості енергетичної системи Європейського Союзу. Висвітлено два основних надзвичайних заходи, які супроводжують план REPowerEU.

***Ключові слова**: Європейський Союз; російський газ; план REPowerEU; газова незалежність.*

Отримано 27.04.2023
Прорецензовано 15.05.2023
Доопрацьовано 17.05.2023
Підписано до друку 18.05.2023