

Gas supply security in Europe

Beyond the war in Ukraine

• Abstract

It was possible to get through the winter of 2022/2023 primarily thanks to a set of cyclical factors such as emergency European regulations, a shift to liquefied natural gas, mild temperatures and demand reduction. However, such a strategy cannot be banked on ahead of next winter as it has geopolitical, economic, environmental and social limitations. In this situation, a structural reduction in gas demand, which will entail an acceleration of the energy transition, is emerging as the only viable option to strengthen short-term supply security while respecting our long-term climate targets¹.

Will the Russian invasion of Ukraine in February 2022 be a major turning point in the history of the European energy transition? Beginning in the spring of 2021², the reduction of gas flows from Russia accelerated following the war in Ukraine as twelve Member States were subjected to a partial or total interruption of their supply of gas from Russia. **Russian pipeline gas now only accounts for 6 to 7% of the EU's supply, compared to roughly 40% previously.**

¹ To find out more about public policy recommendations, please refer to page XX.

² Nguyen P.-V. & Pellerin-Carlin T. 2021. "The European Energy Price Spike. Overcoming the Fossil Fuel Crisis" *Policy Brief*, Jacques Delors Institute, October.

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This situation brings into focus the emergence of what philosopher Pierre Charbonnier calls a “war ecology”³, seen as “a peaceful weapon of resilience and autonomy”⁴ as it meets the twofold objective of drying up financial resources that fund the war in Ukraine and of rapidly cutting our greenhouse gas emissions. However, this doctrine faces an obvious hurdle as **the trade of Russian gas (both natural and liquefied gas) is still not subject to European sanctions**⁵.

In addition, this reduction in Russian gas results, not from a European drive to sanction Russia’s war⁶, but rather primarily from unilateral decisions made by Vladimir Putin. **The EU was therefore compelled to roll out an exit strategy.** Presented in May 2022, the **REPowerEU** plan aims to “reduce the EU’s dependence on Russian gas by two thirds before the end of 2022” and to “make Europe independent from all Russian fossil fuels well before 2030”. This is to be achieved firstly by **diversifying gas supply sources** and secondly by **stepping up the energy transition** and rolling out energy sufficiency and efficiency measures and renewables.

Taking stock of the winter of 2022/23 with a view to being better prepared for upcoming winters, this paper will focus mainly on the **REPowerEU** plan⁷, one year on from its publication. By analysing the levers but also the shortcomings of the strategy that enabled the EU to source its gas from other suppliers and reduce its energy consumption, the aim is to identify some missteps, and prevent them from occurring again, considering the first datasets available that can be used to assess the past situation. This paper intends to demonstrate **the need to reduce gas consumption in the long term in order to ensure the continent’s supply security.**

For this purpose, the first section will identify existing and future risks likely to impede the continent’s gas supply security, showing that the situation remains precarious ahead of next winter (I). The strategy to diversify gas suppliers currently remains the best means of moving away from dependence on Russia. It must absolutely come together with more structural and ambitious measures to reduce gas demand as this is the best way of ensuring compliance with climate targets while fostering European solidarity (II).

3 Charbonnier P. 2022. “The Birth of War Ecology”, Groupe d’Etudes Géopolitiques, Green, issue 2, September.

4 *Ibid.*

5 Up to now, eleven <https://institutdelors.eu/publications/les-balkans-occidentaux-en-voie-de-depeuplement/> rounds of sanctions have been adopted against Russia. Sanctions on energy only concern coal and oil, and not gas or nuclear power.

6 According to the estimates of the CREA, [Russia’s gas revenues increased by 42% in 2022 compared to 2021.](#)

7 While there are early signs that indicate an acceleration of the deployment of renewables in Europe, the negotiations concerning the renewable energy directive have only recently culminated in a political agreement (which remains to be approved). The analysis of this objective on a European level will be postponed as there was hitherto no officially stabilised legal framework.

I • From one strained winter to another? Supply security remains precarious

Accounting for around one quarter of the European Union's gross energy consumption, gas is consumed to generate power and heat (32%), for household heating (24.3%), in industry (23.1%) and also in the commercial sector and in public services (11.1%).⁸ More specifically, the building sector (residential, tertiary and central heating units) is the first consumer of gas in Europe (more than 40%). In just one year, European's relationship with natural gas¹⁰ has profoundly changed.

While the strategy to diversify the EU's gas suppliers, together with a mainly cyclical fall in demand, enabled the EU to get through the winter of 2022/2023 without any major shortages, the situation remains precarious ahead of next winter.

I ADDRESSING THE ENERGY EMERGENCY AND STEPPING UP THE TRANSITION: *REPOWEREU* AND BEYOND

On 18 May 2022, the European Commission presented its *REPowerEU* plan in response to the invasion of Ukraine. It is based on three levers for action: **saving energy**, **generating clean energy** and **diversifying energy sources**. To achieve this, several emergency regulations were adopted, and **three extraordinary meetings** of energy ministers were exceptionally held just in the third quarter of 2022.

In practice, the **objective to reduce energy consumption** was first addressed through the adoption of a regulation concerning a coordinated European approach to voluntarily cutting gas consumption by 15% between August 2022 and March 2023¹¹. With gas savings of 17.7% compared to the average over the last five years¹², equivalent to 50 billion cubic metres of gas, the EU has met its target. Nevertheless, this average reflects different situations as **seven countries (Malta, Ireland, Slovakia, Spain, Poland, Slovenia and Belgium) failed to reduce their gas consumption by 15%**. Similarly, the regulation provides for the option of being directly exempt¹³ or of obtaining derogations¹⁴ to the 15% reduction target. As the war in Ukraine looks set to last, the lack of a tightening of derogation criteria raises questions if Member States are to be as diligent as possible in their preparation for next winter.

8 European Council, February 2023, "Where does the EU's gas come from?", *Infographic*, accessed on 5 June 2023.

9 IFPEN, *All about natural gas & IEA*, Heating - Analysis, 2023.

10 In 2021, the EU imported 83% of the natural gas consumed: European Council, February 2023, "Where does the EU's gas come from?", *Infographic*, accessed on 5 June 2023.

11 It should also be noted that a regulation in force until the end of March 2023 was adopted in October 2022 with a view to proactively reducing electricity consumption by 10%, and by 5% during periods of peak demand. While a **majority of States successfully reduced their consumption during peak periods, electricity consumption in Europe fell by roughly 3% in 2022**.

12 Eurostat, 2023, "EU gas consumption decreased by 17.7%", accessed on 5 June 2023.

13 The exemptions concern States which do not have gas interconnections with other EU Member States (Malta, Ireland) or countries (Baltic States) with an electricity system currently synchronised with Russia, which could find themselves isolated in the event of a sudden desynchronisation, requiring the use of gas to generate electricity that is usually imported.

14 Council of the EU, 2022, "**Member states commit to reducing gas demand by 15% next winter**": "Member states can request a derogation to adapt their demand reduction obligations if they have limited interconnections to other member states and they can show that their interconnector export capacities or their domestic LNG infrastructure are used to re-direct gas to other member states to the fullest.

Member states can also request a derogation if they have overshot their gas storage filling targets, if they are heavily dependent on gas as a feedstock for critical industries or if their gas consumption has increased by at least 8% in the past year compared to the average of the past five years".

At the end of March 2023, the EU officially **extended the voluntary reduction target of 15%** for the period from 1 April 2023 to 31 March 2024. This rollover of the target is justified in particular by the Commission's working document, which models the expected gas storage filling rate according to whether or not the annual reduction target is extended¹⁵. The outcome is that the scenario most likely to guarantee supply security on the continent entails a one-year extension of this target. This would result in the EU having gas storage levels of 95 billion cubic metres (bcm) by the end of October 2023 and 43 bcm by the end of March 2024. However, **to avoid all efforts resting solely on a few Member States, it also seems appropriate to consider continuing this objective in the long term by making it mandatory and no longer voluntary so that all Member States are encouraged to make a useful contribution.**

The rollover of the 15% gas reduction target on a European level also increases the possibility of having gas storage levels of 90%¹⁶ by 31 October 2023. The pace of filling underground gas storage facilities is now set by a [regulation adopted on 27 June 2022](#). By defining for each Member State a minimum gas storage filling level prior to the start of the winter period (80% for the winter of 2022/2023 and 90% for subsequent winters), the Commission intends to strengthen Europe's supply security. In this respect, a recent analysis of the Commission's Joint Research Centre¹⁷ demonstrates the relevance of intermediate filling targets (February, May, July, September for 2023) to enable all stakeholders to anticipate and spread the load across the year more effectively. In 2022, all Member States concerned had met the intermediate targets defined in the regulation on time (and even before schedule), indicating that the extension of such a mechanism is appropriate. It would also be a means of leveraging the current drop in gas prices (lowest level in two years) while being prepared should a cold spell occur early.

Lastly, deviating slightly from its liberal doctrine, the European Commission also proposed a **Market Correction Mechanism aimed at capping gas prices**. This cap would be triggered on two conditions: if the price of gas exceeds €180/MWh on the European reference market (TTF) over three working days and if it is €35 higher than the reference prices on the global LNG markets. The mechanism entered into force [at the end of December 2022](#) but has not yet been used as the current gas price (~€25/MWh)¹⁸ fell considerably from its record summer peak (€346/MWh), and no "significant impacts (positive or negative) [...] could be unequivocally and directly attributed to the adoption of the MCM".¹⁹

While the gas price has returned to levels recorded prior to Putin's gas manipulation (mid-2021), a rebound in prices after the summer cannot be ruled out due to increased demand in Europe and/or in China, and the need to fill storage, it being understood that the prices for the winter of 2024 will remain high (between €50 and €55/MWh, compared to €20 to €30/MWh historically). This raises the question of the long-term continuation of the emergency regulations cited above.

¹⁵ European Commission, 2023, [Analysis of coordinated demand reduction measures for gas](#), Working Document, March.

¹⁶ Fernandez Blanco Carramolino, R., Rodriguez Gomez, N. and Bolado Lavin, R., [Monitoring the gas storage filling trajectory in the European Union in 2022](#), EUR 31408 EN, Publications Office of the European Union, Luxembourg, 2023, ISBN 978-92-76-98898-4, doi:10.2760/299350, JRC132366.

¹⁷ *Ibid.*

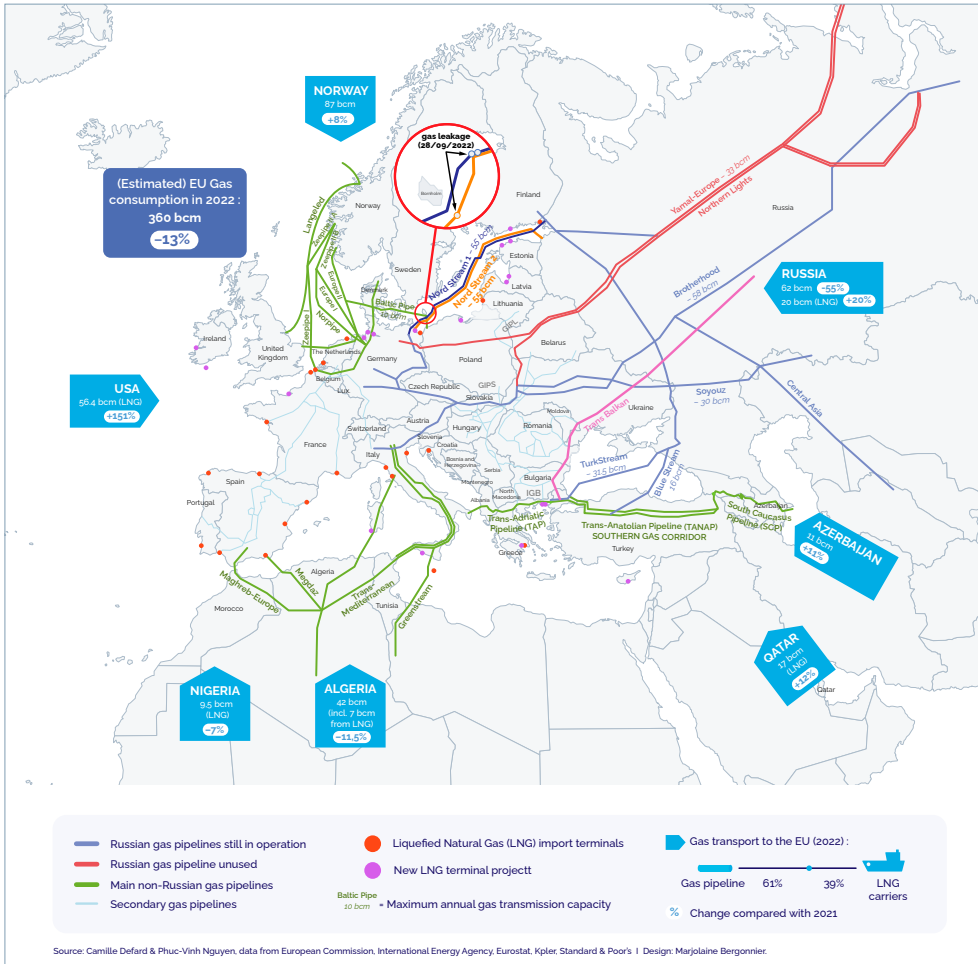
¹⁸ Gas price on the "TTF" market, accessed on 05 June 2023.

¹⁹ ACER 2023, [Market Correction Mechanism - Effects assessment report](#).

I SUPPLY DIVERSIFICATION: THE NEW GEOPOLITICAL REALITY OF GAS FLOWS TO THE EU

– Situation in the spring of 2023

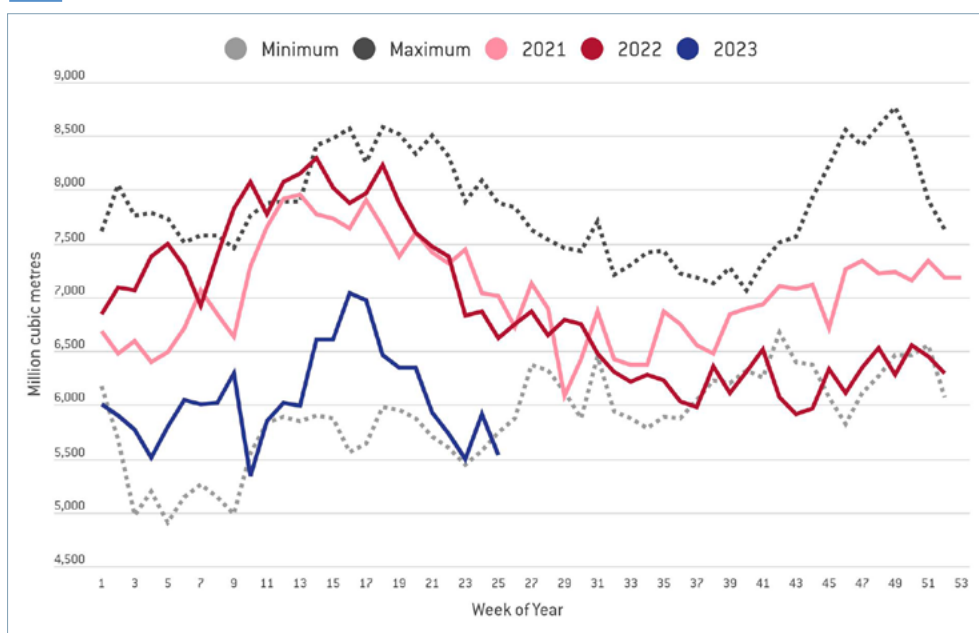
MAP 1. The main gas supply routes and sources within the EU in 2022 compared to 2021



The EU could be cut off from an additional 40 bcm of Russian gas in 2023 compared to 2022, which is the equivalent of France’s annual consumption. Since the autumn of 2022, in addition to “TurkStream” (see map) only the “Soyouz” and “Brotherhood” pipelines that cross Ukraine have been providing Europe with Russian gas, but in a trickle rather than a flow²⁰. The graph below illustrates the gradual fall in Russian gas exports from March-June 2022 (in red) and the current provision rate (in blue). Currently, at constant flows, the EU has between 20 and 25 bcm of Russian gas this year, around 60% less than in 2022 and 80% less than in 2021.

²⁰ To follow weekly flow trends, see [European natural gas imports](https://bruegel.org) (bruegel.org).

GRAPH 1. Gas imports from Russia (2021-today)



▲ Source: European natural gas imports (bruegel.org).

In 2022, the drop in gas supply from Russia was for the most part offset by an increase in European liquefied natural gas (LNG) imports. Conventionally viewed as a balancing market aimed at absorbing surplus volumes of LNG, **the European Union now relies heavily on the international markets for its gas supply** (USA, Qatar in particular, see map). In 2022, deliveries by LNG tankers more than doubled year-on-year and accounted for roughly 40% of Europe’s total gas imports. Given the uncertain future of deliveries from the Russian Federation, if the EU fails to reduce its gas demand in the long term, this unprecedented trend to shift to LNG may continue over time, which is not without risk.

By increasing its supply from the global LNG market, the EU has created new weaknesses for itself. Currently, the EU obtains 45% to 50% of its supply on the spot market, which exposes it to the twofold risk of price volatility and availability as it is in competition with other buyers. In 2022, China was undergoing a lockdown and its **LNG imports fell by more than 20%**, thereby freeing up 22 bcm on the market. **Modelling by the International Energy Agency (IEA) for 2023** provides the scenario of an expected rebound in Chinese LNG demand of 10%, which could rise to 35% in the event of a “steady price decrease” together with “rapid economic recovery”. Final LNG consumption in China alone represents (like Russian exports) an uncertainty range of approximately 40 bcm²¹. Its economic recovery could have a negative impact on available volumes for Europeans.

The EU-27 are attempting to secure agreements with alternative gas producers to increase and safeguard delivered volumes. However, despite the proactiveness of certain States (led by Germany and Italy), these efforts have not been very successful. Out of the fifty bilateral discussions held, only nineteen resulted in legally

²¹ In its **report for Q2-2023**, the IEA estimates a 6% increase in Chinese gas demand including a 10-15% increase in LNG compared to 2022.

binding agreements²², with the remainder leading to a memorandum of understanding or a protocol agreement at best. The same can be said on a European level, as, despite talks with six countries²³, only [the agreement with the USA](#) is legally binding.

The diversification of gas supply shifts the reliance on Russia to other countries (USA, Algeria, Qatar, Azerbaijan). Supply cannot be guaranteed at all times and in all situations. For example, while the US was able to increase the delivery volume of its “freedom gas” in 2022 (+22 bcm), making France the main global recipient²⁴, there is no guarantee that this level of exports would continue after the 2024 US election, as the US President has the discretionary capacity to ban exports²⁵. The same goes for Azerbaijan, where the democratic regime is subject to criticism²⁶ and there are suspicions of corruption.

Given the intrinsic limitations of the diversification strategy, reducing gas consumption is the most lasting solution to guarantee supply security in the medium term.

I A WELCOME DROP IN DEMAND, BUT ONE THAT IS PRIMARILY CYCLICAL

– Adopted policies

There are [many](#) measures that immediately reduce gas consumption.²⁷ These include reducing the recommended heating temperature (as adopted in France and Spain) and reducing street lighting, given that around 20% of the electricity generated in the EU²⁸ comes from natural gas combustion.

Up to now, the adoption and type of measures promoting a reduction in gas demand were left to the discretion of Member States. Regardless of the existence of energy demand reduction targets on a European level, the lack of practical guidelines raises questions. It has resulted in a disparity in the measures adopted within the EU, both in terms of targeted consumers and their mandatory or optional nature. Currently, **only half (14/27) of the EU Member States have adopted binding measures to reduce their energy consumption**²⁹. Ten others have preferred voluntary measures which, once again, were rolled out in disparate ways in the summer and autumn. Lastly, three Member States have not yet adopted measures to reduce their energy consumption, according to the European Environmental Bureau. This observation calls for **stronger EU coordination with greater sharing of experiences between Member States.**

At national level, **the adoption of binding measures across all Member States seems to be a pre-requisite so that each Member State may provide a fair contribution to the general gas demand reduction target.** Lastly, there is the matter of articulating demand reduction measures with the fiscal support³⁰ deployed by Member States to protect consumers from energy price spikes. Up to now, price cap

²² Dennison, S, Kardas, S, Piaskowska, G, Zerka, P, 2022. [EU Energy Deals Tracker](#), ECFR. Accessed on 5 June 2022. The content of the agreements varies greatly and ranges from the purchase of a tanker to the supply of LNG for fifteen years and obtaining a participating interest in projects.

²³ [Norway, Egypt, Israel, Azerbaijan, Algeria and the USA](#).

²⁴ See [US Energy Information Administration](#).

²⁵ Reuters, 2022. [Exclusive: White House rules out ban on natural gas exports this winter](#), 4 Oct 22.

²⁶ Rankin, J. 2022. Human rights groups criticise EU's Azerbaijan gas deal. *The Guardian*, July.

²⁷ Leuser L. & Pellerin-Carlin T. 2022. “[Energy Sufficiency. The missing lever to tackle the energy crisis](#)”, *Policy brief*, Paris: Jacques Delors Institute, 13 May.

²⁸ Moore, C. 2022. [Ember European electricity review 2022](#).

²⁹ European Environmental Bureau, 2023. [Saving Energy for Europe - Spring 2023](#).

³⁰ Sgaravatti, G. et al 2023, [National fiscal policy responses to the energy crisis](#). Bruegel dataset.

mechanisms (such as the price shield in France³¹) were predominant, compared to more targeted systems aimed at the most vulnerable. In this way, Member States provide no incentive to those who could reduce their consumption, but put a strain on their public finances. Restoring a price signal while targeting mechanisms that assist the most vulnerable would enable Member States to increase their capacity for achieving their gas demand reduction target.

– Effects at the end of winter

While the EU reduced its gas consumption by 13% in 2022³², the decrease was primarily recorded between August and December³³, and remains chiefly cyclical. Moreover, the lack of data makes it difficult to distinguish between energy saved through sufficiency and savings related to the increase in fuel poverty³⁴.

The mild winter³⁵ proved to be a precious ally as it was possible to postpone the start of the heating season for winter 2021/2022. This accounted for two thirds of gas savings in the residential and tertiary building sector (see graph 2). It also played a role in decreasing the electricity demand. However, such a phenomenon should not obscure the fact that the climate is changing due to human activity. Besides, it is by no means sure that next winter will be as mild³⁶.

Changes in behaviour contributed to one quarter of energy savings in buildings. This corresponds to a reduction in temperature in homes for solidarity reasons, but also to an increase in fuel poverty caused by rising heating bills. Some households have been forced to reduce heating below the recommended 19°C³⁷, or have turned to cheaper energy sources that sometimes pollute more, such as coal³⁸.

In industry, around half of the fall in gas demand can be explained by the interruption of production activities due to soaring energy prices of gas and electricity, which poses a threat of deindustrialisation in Europe if energy prices remain high. It may also lead to a strong rebound effect in the absence of investment in energy efficiency and the use of renewables. Lastly, in the electricity sector, the significant drop in demand only offset the unavailability of nuclear and hydro plants³⁹.

³¹ Nguyen, P-V. 2023. Crise énergétique ou l'impérieux besoin de repenser le rapport français à l'énergie, *Diplomatie magazine*, February (in French).

³² IEA, 2023. [Europe's energy crisis: What factors drove the record fall in natural gas demand in 2022?](#)

³³ Consumption fell by 20.1% between August and November 2022 and by 19.3% between August and January 2023 according to [Eurostat](#).

³⁴ In August 2022, the IMF estimated that the cost of living increased by 7% on average in 2022, driven by higher energy prices. This increase is more pronounced for lower-income households. Celasun, O., Iakova, D., Parry, I. 2023 [How Europe Can Protect the Poor from Surging Energy Prices](#). *IMF*. For example, the spike in energy prices resulted in a 60% increase in citizens concerned by the risk of fuel poverty in Germany, where the phenomenon now affects the middle classes. Henger, R., Stockhausen, M. 2022. *Gefahr der Energiearmut wächst*. Institut der Deutschen Wirtschaft (in German).

³⁵ See Copernicus data for [November](#), [December](#), [January](#) and [February](#).

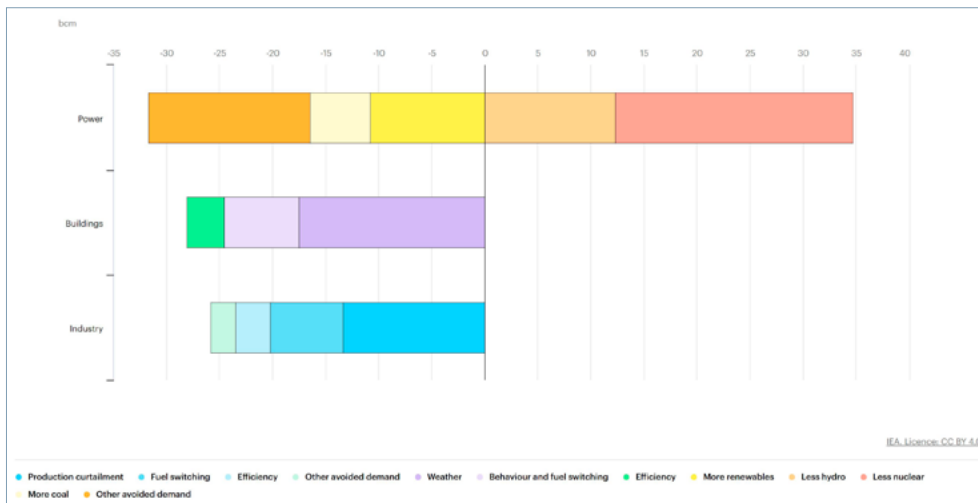
³⁶ IEA, 2023. [Heating degree days in winter months for selected countries and regions 2000-2022](#).

³⁷ IEA, 2023. [Europe's energy crisis: What factors drove the record fall in natural gas demand in 2022?](#) According to the IEA, fuel poverty is another factor: many vulnerable consumers reduced their consumption because they did not have the means to pay higher bills, leading to cold homes or the use of fuel sources that are cheaper but which sometimes pollute more, such as wood pellets, charcoal, rubbish or poor-quality fuel oil.

³⁸ *Ibid.*

³⁹ Jones, D. 2023. [Ember European electricity review 2023](#).

GRAPH 2. Drivers of change in natural gas demand in power, buildings & industry in the European Union, 2022 vs 2021



▲ Source: International Energy Agency 2023

Energy efficiency in buildings and industry together with the greater use of renewables are responsible for around one quarter of gas savings (11%⁴⁰ and 20%⁴¹ of the total reduction respectively). Three million heat pumps were sold in Europe in 2022, an increase of almost 40% compared to the previous year⁴². 2022 was also a record year for solar and wind power, with more than 50 GW of installed capacity (41 GW for solar and 16 GW for wind power), which contributed significantly to saving the equivalent of 14 bcm of gas over 2022⁴³. However, renovations to improve the energy performance of buildings, a key factor of sustained decreased gas demand⁴⁴, are missing from the picture. More complex to set up, they would require additional policies, particularly as regards financing and technical assistance. Similarly, renewable energy systems are suffering from the permit granting procedure which is well above the 24-month limit provided for in the Renewable Energy Directive⁴⁵. Lifting these barriers will be essential if the reduction in gas demand is to be stepped up.

⁴⁰ IEA, 2023. *Europe's energy crisis: What factors drove the record fall in natural gas demand in 2022?*

⁴¹ *Ibid.*

⁴² CarbonBrief, 2023. *Guest post: How the energy crisis is boosting heat pumps in Europe.*

⁴³ CREA, 2023. *Renewables helped the EU boost underground gas storage by 14% since start of 2022.*

⁴⁴ Defard, C. 2021. *Addressing the climate and social emergencies with minimum energy performance standards.* Jacques Delors Institute *Policy Brief*

⁴⁵ Fox, H. 2022. *Ready, Set, Go. Europe's race for wind and solar.* Report. Ember.

BOX1. The European Green Deal: a vehicle for energy resilience

Leveraging the ongoing negotiations related to the so-called “FitFor55” legislative package (which increases the greenhouse gas reduction target from -40% to -55% by 2030, compared to 1990), the *REPowerEU* plan proposed an upward revision of energy efficiency and renewable use targets. By agreeing on energy efficiency targets increased to 11.7% of European primary and final consumption (against the 9% target initially proposed) and 42.5% of gross final energy consumption (against 40% initially proposed), the EU intends to withdraw from using Russian natural gas by 2030 while stepping up the energy transition initiated as part of the European Green Deal. The implementation of the *Fitfor55* package is set to reduce gas consumption by more than 30% by 2030 compared to 2019 levels⁴⁶. More specifically, Russian gas may be completely replaced by 2028⁴⁷, if additional investments of €512 billion are made in renewables and heat pumps. This comes on top of the €299 billion already forecasted by the Oxford Sustainable Finance Group as part of the roll-out of the European Green Deal.

Thanks to this overall drop in gas demand in 2022, **gas storage** levels in Europe at the end of the winter were in the upper average⁴⁸ compared to the period from 2016 to 2021⁴⁹. The filling rate was greater than 50% at the end of March compared to around 25% at the same time the previous year, i.e. a positive delta of approximately 25 bcm. While it validates the **European regulatory strategy adopted after the spring of 2022** which combines the gas storage filling obligation ahead of the winter season and voluntary energy demand reductions⁵⁰, **such a result should not give Member States a false sense of security, as many uncertainties still remain.**

Schematically speaking, beyond the status quo described above, and without intending to be exhaustive, a low filling level of European gas storage ahead of next winter, a particularly tight global LNG market or an exceptionally harsh winter could lead Vladimir Putin to limit residual gas flows to the EU in order to make its access to gas more difficult. In addition, Ukraine may decide unilaterally to suspend transmission in its territory or an incident (sabotage, collateral damage, malfunction) may occur on the pipelines that cross Ukraine. Should these assumptions come to pass, this could result in tensions for Europe’s gas supply.

Conversely, **an attempt by Putin to drive wedges between Member States or even an explicit request⁵¹ from one of them could result in increased gas transit to Europe.** In order to prevent States which are still extremely dependent such as **Hungary** and **Austria** from reaching such an extreme decision, **coordination and gas exchanges must be strengthened between the Member States concerned**

- ⁴⁶ Makaroff, N. Karcher, L. 2023 *Turning the European Green Deal into Reality*. Report. Strategic Perspectives.
- ⁴⁷ Schumacher, J. & al, 2023, *The race to replace: the economics of using renewables to free Europe from Russian gas*. Report. Oxford Sustainable Finance Group.
- ⁴⁸ On 5 April, the EU’s storage level was 55.72% according to *Gas Infrastructure Europe - AGSI* (gie.eu), which corresponds to the upper filling average of the last five years. At the end of winter (end of March), the filling record (excl. 2020) was 47% in 2014.
- ⁴⁹ Fernandez Blanco Carramolino, R., Rodriguez Gomez, N. and Bolado Lavin, R., *Monitoring the gas storage filling trajectory in the European Union in 2022*, EUR 31408 EN, *Publications Office of the European Union*, Luxembourg, 2023, ISBN 978-92-76-98898-4, doi:10.2760/299350, JRC132366.
- ⁵⁰ For gas and electricity because 20% of electricity is generated using gas within the EU (Ember, 2022).
- ⁵¹ On 13 August 2022, despite the war in Ukraine, Hungary **announced the signature of a contract with Gazprom that increased its supply.**

and their neighbours, particularly by promoting the signature of bilateral solidarity agreements. These agreements prepare how gas is shared in the event of a shortage in a country and guarantee supply for persons identified as protected consumers in anticipation of this situation. They are essential to ensure European unity and solidarity while laying the foundations for a round of sanctions concerning Russian gas arriving by pipeline⁵².

The wide range of possible scenarios⁵³ means that the EU must address this principle of uncertainty. It must immediately provide a stronger structural response to the current crisis⁵⁴.

II • Which strategy should the EU adopt for next winters?

The European gas supply strategy should meet objectives for competitiveness and fair access to energy, in addition to environmental and climate sustainability targets.

The Commission believes that the sharp hike in gas prices is likely due to competition between Member States to secure gas in a situation of limited supply and bottlenecks. The lack of coordination between Member States to address the threat of shortages only exacerbated the crisis. A stronger European approach must be adopted.

I GAS AT ALL COSTS?

There are significant limitations to the diversification of gas supply. The first is economic with an LNG price that has proved to be two to four times higher on average than that of gas arriving by pipeline⁵⁵. Such a price difference feeds through the entire gas chain, like the cost of French gas storage filling estimated by the French Energy Regulatory Commission (CRE) to be five times more than normal⁵⁶. In terms of the climate impacts, LNG must by definition undergo a liquefaction and regasification process that is very energy-intensive. It is transported by tanker, which increases its carbon footprint compared to gas transported by pipeline. Lastly, US gas is mostly obtained by fracking. It is deemed⁵⁷ to pollute more than its Russian alternative⁵⁸, which is at odds with the European target to reduce greenhouse gas emissions and to respect the environment.

Furthermore, despite the war in Ukraine, Russian LNG imports rose in 2022. France became the top European importer of Russian LNG in 2022⁵⁹, accounting

⁵² Gavin, G. Jack, V. 2023. [EU balks at adding Russian gas pipeline ban to sanctions package](#), Politico, May.

⁵³ McWilliams, B. & al, 2023, [Preparing for the next winter: Europe's gas outlook for 2023](#), Bruegel, February. • [In the worst-case scenario](#), Bruegel forecasts a 26% reduction in demand.

⁵⁴ European Environment Agency, 2023. [Recommendations to EU and Member States on how to tackle both the energy and the climate crisis simultaneously](#), February.

⁵⁵ In 2018, the Russian energy minister estimated that “Russian gas was 50% cheaper than US LNG”.

⁵⁶ Collen, V. 2022. [La France va payer le prix fort pour remplir ses stockages de gaz](#). *Les Echos*, March (in French).

⁵⁷ Joly, A. Mossé, J. 2021. [Importations de gaz naturel : tous les crus ne se valent pas](#), *Carbone4*, October (in French).

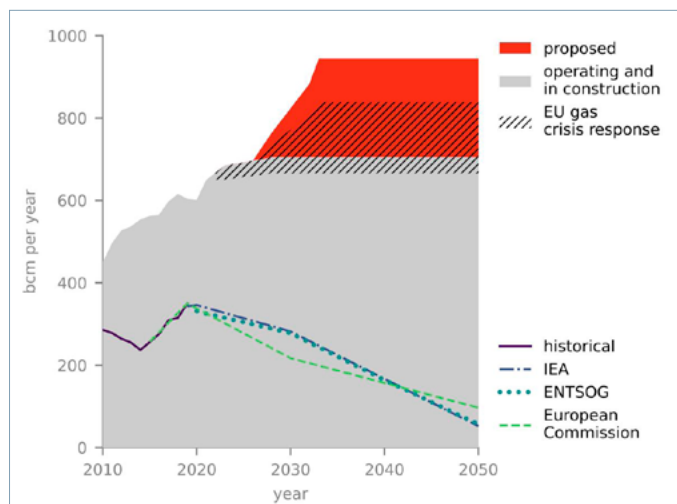
⁵⁸ IEA, 2023. [Overview – Global Methane Tracker 2023 – Analysis](#), IEA.

⁵⁹ Jaller-Makarewicz, A-M. 2023. [As Europe tries to cut Russian ties, dependence on imported LNG deepens](#), Institute for Energy Economics and Financial Analysis, January.

for almost one third of Russian LNG⁶⁰ sold to Europe. The same can be said for Spain and Belgium which “significantly” increased their imports of Russian LNG⁶¹. While the European Energy Commissioner Kadri Simson said that she wanted the EU to stop importing Russian LNG⁶², imports continue at a level that is higher than in the period before the war in Europe⁶³, which raises a moral dilemma for Europeans. In Q1 2023, around 20% of European LNG imports still came from Russia.

The accelerated deployment of new national gas infrastructure is inconsistent with our climate objectives. Member States reacted to the crisis by increasing plans for temporary floating storage and regasification units (FSRUs)⁶⁴. Since the start of the crisis, eight new terminals have been commissioned⁶⁵, and the EU’s LNG import capacity is set to increase by a further 20% by 2024⁶⁶ (see map), i.e. an additional import capacity of 45 bcm. However, on a European level, LNG import capacity was already excessive prior to the crisis (see graph 3). The deployment of new gas infrastructure is actually a response to the issue of the poor distribution of LNG terminals across Europe. Moreover, a number of new permanent LNG import terminals have been planned for 2026 while several studies have challenged the need for new gas infrastructure in response to the crisis⁶⁷. These permanent projects do not address the current crisis, run counter to the climate neutrality target and could quickly become stranded assets. As a result, this calls for **better planning of new gas infrastructure on a European level**⁶⁸ to strike a satisfactory balance between the need to guarantee supply security and compliance with climate targets.

GRAPH 3. Historical and future gas import capacity in EU were already much higher than demand in 2020



▲ Source : Europe Gas Tracker Report, Global Energy Monitor, Mars 2023.

- 60 Zapletnyuk, K. 2023. [EU rhetorics against Russian LNG shake the market as commission prepares to tighten its grip through buyers’ cartel](#), ICIS, March.
- 61 Jaller-Makarewicz, A-M. 2023. [As Europe tries to cut Russian ties, dependence on imported LNG deepens](#), Institute for Energy Economics and Financial Analysis, January.
- 62 Abnett, K. 2023. [EU countries seek legal option to stop Russian LNG imports](#), Reuters, March.
- 63 Montel Group, 2023. [EU energy chief urges firms to stop buying Russian LNG](#), March.
- 64 US EIA, 2022. [Europe’s LNG import capacity set to expand by one-third by end of 2024](#), November.
- 65 Corresponding to an additional import capacity of 35.2 bcm/year according to the Global Energy Monitor’s [Europe Gas Tracker Report](#), March 2023.
- 66 Shiryayevskaya, A. Singer, J. 2023. [EU prepares to import more LNG with boost in capacity next year](#), March.
- 67 Artelys 2022 [Does phasing-out Russian gas require new gas infrastructure? Briefing note](#) • Brown, S. et al, 2022. [EU can stop Russian gas imports by 2025. Accelerating clean energy avoids fossil lock-in. Briefing](#). Bellona, Ember, RAP, E3G.
- 68 Already identified as an issue before the crisis, cf. Artelys 2020. [An updated analysis on gas supply security in the EU transition](#).

The EU must ensure that these temporary national projects, which are by nature limited in number, are geographically coherent in order to prevent the occurrence of new bottlenecks towards States to the west of Germany⁶⁹ due to the reversal of gas flows which now transit from west to east. Up to now, States have competed in a mad scramble to acquire FSRUs at the best price. **Optimising the placement of these terminals across Europe will increase the ability to better pool the allocation of a resource that has become scarce and expensive. This could also foster fairer access to gas**, a key precondition for European solidarity. For historical and/or geographical reasons, some countries are traditionally more dependent on Russian gas⁷⁰. This is in particular the case of the Czech Republic (almost 100%⁷¹) and Slovakia (around 70%⁷²). The Czech Republic successfully eliminated its dependence on Russian gas in 2023 by shifting to gas from Norway and LNG (thanks to imports from a terminal located in the Netherlands⁷³). This was not the case for Slovakia (50% in 2022). Given that its landlocked location limits its access to LNG, Slovakia still receives Russian gas by pipeline, as do Italy, Austria and Hungary. The construction of new infrastructure, such as the Polish LNG terminal project in Gdansk will reduce Slovakia's dependence. This objective of reducing dependence on Russian gas must urge Member States and the EU to consider ways of promoting a shared operation of regasification facilities to pool investments around projects in a geographical location that brings about a fair distribution of gas imports while ensuring the highest rates of capacity utilisation. A recent study by Agora Energiewende⁷⁴ models a 25% utilisation rate of LNG terminals in 2030, down from 39% in 2021. At the very least, such a low regasification rate should give priority to projects with a cross-border scope. The LNG terminal commissioned in Lithuania that will also enable “deliveries to countries in the region, namely Latvia and Estonia, but also Poland and Finland”⁷⁵ is a prime example of best practices to be adopted.

I SOLIDARITY: A KEY FACTOR FOR EUROPEAN SUPPLY SECURITY

The uncertainty around the EU's gas supply for the winter of 2023/2024 means that the gas crisis is ongoing. It has shed light on Member States' significant supply interdependence. The EU and its Member States must now step up their coordination and cooperation ahead of the upcoming winters.

With aggregation, the common auctioning of part of the gas demand is a first step towards a common gas procurement mechanism. It demonstrates how European solidarity is being improved ahead of next winter. A European regulation on gas adopted in December 2022 provides that from this year, Member States must aggregate part of their gas demand, equivalent to 15% of their storage filling obligation⁷⁶, via a shared platform: AggregateEU. The platform launches tenders on this basis to select potential suppliers. **The aggregation of part of the gas demand leverages the importance of the European market in relation to third parties**, and guarantees fairer access to international markets, particularly for small buyers. In the event of a shortage, the EU would fairly distribute access rights to available stocks via AggregateEU, on a pro rata basis of requested volumes. The first call for

⁶⁹ As regards possible bottlenecks in Germany and the Czech Republic, see Ramdani, S. 2023, *Le sabotage des Nord Stream, Les Grands dossiers de diplomatie*, February-March (in French).

⁷⁰ Nguyen, P-V. Pellerin-Carlin, T. 2022. European Dependence on Russian Gas – The Example of Nord Stream 2. Jacques Delors Institute, *Infographic*, February.

⁷¹ European Commission, 2023. *REPowerEU – One year later: Czechia*, May.

⁷² European Commission, 2023. *REPowerEU – One year later: Slovakia*, May.

⁷³ Zachova, A. 2023. Czechia decreases Russian gas demand over eight months. *Euractiv*. February.

⁷⁴ Gagnebin, M., Graf, A., Buck, M. 2023. Breaking free from fossil gas, *Agora Energiewende*, May.

⁷⁵ Ramdani, S & al. 2023. La stratégie russe de limitation des exportations de gaz vers l'UE: une composante de l'invasion de l'Ukraine, *Report*, May (in French).

⁷⁶ 90% storage filling level by 1 November 2023.

tenders launched in May 2023 was successful for both purchasing companies and gas suppliers, with auctions (13.4 bcm) exceeding aggregated demand (11.6 bcm)⁷⁷. Most of the gas is transported by pipeline, so the suppliers concerned are already EU partners. In addition, for the moment transactions are conducted outside the shared platform on a bilateral basis. The first auction was **an important step towards common gas procurement**, an idea that has been proposed by the Jacques Delors Institute since 2010⁷⁸, which would strengthen the external aspect of the Energy Union.

Moreover, **supply solidarity is still insufficiently institutionalised in the event of a crisis**. Currently, only seven **bilateral energy solidarity agreements** concerning ten Member States⁷⁹ have been signed. However, their signature is crucial as these agreements organise the technical, legal and financial conditions that make it possible to supply gas between two EU Member States on the basis of solidarity in the event of an extreme gas crisis. The new **European Regulation** provides for one year of solidarity between States in the absence of an agreement. However, this stopgap is not a long-term solution and requires States to overcome their reluctance and quickly sign these types of agreements. In this way there would be a fall-back plan in the event of a major crisis⁸⁰ and efforts to reduce demand can be better calibrated if necessary.

Faced with a limited energy supply, the challenge of access and distribution of resources between the various consumers becomes crucial. The overconsumption of a country, a sector or any other stakeholder could result in or exacerbate supply tensions, which would directly increase prices and may lead to a physical shortage. **The strengthening of European solidarity must go hand in hand with a coordinated and scheduled reduction of gas demand.**

Reducing European gas demand is also an international solidarity challenge as the EU's diversification strategy has an impact on the poorest economies, as it captures flows that were initially intended for Asia. **Bangladesh** and **Pakistan** were deprived of shipments that were initially for them after they were outbid by Europe. This led to **blackouts** due to energy shortages and even a shift to coal⁸¹, as it was not possible to pay for the transition energy that was promised.

I AVOIDING A DEFERMENT OF GAS DEPENDENCE BY REDUCING DEMAND

It is difficult to structurally reduce gas demand in the space of a few months., Gas production cannot be increased significantly in the very short term and the construction of new pipelines is long, expensive and out of step with the environmental targets that have been set. Therefore the only levers immediately available have been energy sufficiency and diversification via LNG. The diversification strategy using LNG has major shortcomings as detailed above. This calls for a focus on the demand reduction lever that is energy sufficiency.

Energy sufficiency gradually earned a greater importance in public debate as gas flows from Russia decreased. However, in most cases, as with the French energy

⁷⁷ EC, 2023. *EU Energy Platform: EU attracted over 13.4 bcm of gas in first joint gas purchasing tender. News announcement.*

⁷⁸ Andoura et al, 2010. *Towards a European Energy Community: a policy proposal.* Jacques Delors Institute, *Report.*

⁷⁹ Austria, Denmark, Estonia, Finland, Germany, Italy, Latvia, Lithuania, Slovenia, Sweden.

⁸⁰ Yafimava, K. 2023. *EU solidarity at a time of gas crisis: even with a will the way still looks difficult.* *The Oxford Institute for Energy Studies, Policy Paper*, February.

⁸¹ Peshimam, G-N. 2023. *Pakistan plans to quadruple domestic coal-fired power, move away from gas.* Reuters.

sufficiency plan of October 2022, the focus is more on energy savings than giving substance to the very concept of sufficiency policies, defined by the Intergovernmental Panel on Climate Change (IPCC) as “a set of measures and daily practices that avoid demand for energy, materials, land and water while delivering human well-being for all within planetary boundaries”⁸². Rather than calling for short-term individual energy savings alone, this definition highlights policy measures and human well-being which are essential if sufficiency is to meet its full potential. **Sufficiency involves prioritizing and rescaling energy uses in a democratic process**⁸³.

Undifferentiated calls for demand reduction may well be socially unfair as not all stakeholders have the same means of reducing their energy consumption. In 2020, prior to the energy price crisis, 35 million Europeans could not heat their homes sufficiently to protect themselves from the cold⁸⁴. This means that many people do not have room to further reduce their heating in the absence of investment in building renovation. According to the annual barometer of the French Energy Mediator, 59% of energy consumers in France claim they cannot make any more energy savings than they are doing already, particularly to cut their heating bills⁸⁵. However, in the event of overconsumption, there is scope to save energy, particularly among individuals who are the largest energy consumers. In Europe, the carbon footprint of the wealthiest 10% is six times higher than that of the poorest 50%⁸⁶. **Effective and socially just sufficiency entails appropriate support for vulnerable households to ensure access to sufficient energy for all, in addition to targeted measures to curb overconsumption.**

Effective long-term sufficiency requires infrastructure and regulations that promote efficient energy use⁸⁷. Individual behaviours and choices are made against a social and technical backdrop (graph 4) which may foster or hinder sufficiency. Up to now, wasting energy remains structurally promoted in many areas⁸⁸, such as urban infrastructure that makes cars essential or the lack of a kerosene tax for aviation. A call for energy saving measures therefore runs counter to our society’s model of organisation. Effective and sustainable efforts must include a systemic approach to energy consumption. Enabling all to adopt low energy consumption behaviours therefore involves making such a lifestyle accessible by making infrastructure and services available, such as building insulation combined with a heating temperature limit of 19°C or facilitated access to predominantly plant-based food which uses less fossil energy⁸⁹.

⁸² Footnote 59, page 35 of IPCC (2022): *Climate Change 2022: Mitigation of Climate change. Summary for Policymakers*. Working Group III contribution to the Sixth Assessment Report of the IPCC.

⁸³ Bourgeois *et al.* 2023, *Climate neutrality, energy security and sustainability: a pathway to bridge the gap through sufficiency, efficiency and renewables*. CLEVER.

⁸⁴ European Commission, 2023. *Energy Poverty in the EU*, accessed on 5 June.

⁸⁵ French Energy Mediator (Médiateur national de l’énergie), 2022. *2022 : 16ème édition du baromètre énergie-info* (in French).

⁸⁶ Chancel, L., Piketty, T., Saez, E., Zucman, G. *et al.* *World Inequality Report 2022*, World Inequality Lab [wir2022.wid.world](https://www.wid.world)

⁸⁷ Axon, S. 2017. ““Keeping the ball rolling”: Addressing the enablers of, and barriers to, sustainable lifestyles”. *Journal of Environmental Psychology*, 52, 11–25.

⁸⁸ Kuss, P., & Nicholas, K. A. 2022. “A dozen effective interventions to reduce car use in European cities: lessons learned from a meta-analysis and transition management”. *Case studies on transport policy*, 10(3), 1494-1513.

⁸⁹ Gibbs, J., & Cappuccino, F. P. 2022. *Plant-based dietary patterns for human and planetary health*. *Nutrients*, 14(8), 1614.

III • Recommendations

If the 2030 targets set as part of the European Climate Law are to be met, this would take a 35% reduction of natural gas demand Europe-wide compared to 1990, and even a 52% reduction if the *REPowerEU* plan is fully implemented according to the estimates made by E3G.⁹⁰ Since the outbreak of the war in Ukraine, **this reduction of gas demand is not only an environmental necessity, but also a challenge for supply security and energy sovereignty.** The European Union and its Member States have various levers at their disposal to prepare for the coming winters as effectively as possible, while ensuring that there is no contradiction with the fight against climate change. On the contrary, actions must be stepped up to combat climate change:

Getting through the winter meant that the efforts made by the EU and its Member States paid off but also reflected a favourable situation (mild winter, low demand from China). It justifies the extension of gas consumption reduction targets at -15% from 1 April 2023 to 31 March 2024, deemed essential to meet gas storage filling objectives⁹¹. Nevertheless, the goal is to increase gas savings in the long term. A likely scenario ahead of next winter, [as the war in Ukraine stalls](#), together with a continued retention of Russian flows, this leads us to **recommend efforts to reduce gas demand to continue from now on at a European level.**

The texts of the *Fitfor55* package, including the Renewable Energy Directive (RED), Energy Efficiency Directive (EED) and the Energy Performance of Buildings Directive (EPBD) could be finalised by the end of 2023 and should subsequently be transposed into national law. As we wait for the initial effects of these new regulations, it is possible to adopt the following measures:

1. A mandatory gas demand reduction target rolled out on a national level, with enhanced monitoring and implementation procedures, in particular:
 - **publishing and making accessible (for example through the Eurostat platform) data reporting from States to the EU** concerning gas demand reduction by sector. Occurring to date every two months, or even every year, for sector-based data, the timeframe for Member States to report gas consumption data to the EU [has now been shortened to one month in the Regulation prolonging the demand reduction period](#). This will make it easier to assess the efforts made and the avenues for improvement (targeting) in the very short term in the various business sectors that consume gas;
 - **holding discussions, this time including the European Parliament⁹², concerning the creation of a mandatory gas consumption reduction pathway for each Member State** for one-year periods, from 1 April 2024 to 31 March 2027, as 2027 is the target year in which the EU wishes, in theory, to have completely nullify Russian gas imports thanks to the *REPowerEU* plan. This pathway could be extended beyond 2027 in order to adopt a pathway to phase out the consumption of natural gas. This could be incorporated in the updating of national energy and climate plans which are set to be finalised in June 2024;
 - holding discussions concerning the position that the European Council should adopt in relation to potential fluctuations of Russian gas arriving by pipeline.

⁹⁰ Johnston, R., Jones, M., Fischer., Hanoteaux., Raphael. 2022. [Are we on track? Repowering towards EU gas demand reduction](#), October.

⁹¹ European Commission, 2023, [Analysis of coordinated demand reduction measures for gas](#), *Working Document*, March.

⁹² The current procedure is set out in [art. 122 of the TFEU](#), which authorises emergency measures to be taken without consulting the European Parliament.

This would culminate in a collective response in the event of a termination or increase in flows from Russia while anticipating the fact that gas transit contracts between Ukraine and Russia expire at the end of 2024⁹³. Preparing for such scenarios would also pave the way for the adoption of potential sanctions concerning Russian gas⁹⁴.

- **facilitating the implementation of the necessary green investments.** Under the *REPowerEU* regulation which entered into force in March 2023⁹⁵, Member States can finance this increased ambition to reduce gas demand with loans that are still available from the European Next Generation EU recovery plan (€225 billion, and an additional €20 billion in grants financed by the European carbon market). They can apply through the inclusion of a “REPowerEU” chapter in their national recovery plans. The amendment of recovery plans to include the *REPowerEU* objectives is a welcome planning exercise. While it focuses on the national level, 30% of new measures must have a European cross-border dimension⁹⁶. Nevertheless, the fact that these loans will increase public debt may limit their appeal for Member States, while the debate on the reform of the European fiscal rules is still far from being settled⁹⁷. **An exemption from the debt calculation of certain national investment programmes related to European objectives such as *REPowerEU* could go some way to solving this problem⁹⁸, in the absence of additional and attractive financing on a European level.** The idea of European Sovereignty Fund, was floated by the Commission over the past months but recently abandoned⁹⁹, could make a major contribution to overcoming the lack of green public investment¹⁰⁰. However, an ambitious version of this fund would entail a new European borrowing, which has not yet garnered support from Germany and the Nordic countries¹⁰¹.

2. Strengthening solidarity and supply security:

- **fostering the signature of bilateral agreements between Member States**, to develop solidarity. Coordination between Member States must be a **key precondition of the necessary signature of long-term LNG supply contracts by private companies**. Using an approach based on energy diplomacy, these contracts must include **flexible destination clauses¹⁰², so that gas can be redirected elsewhere (Asia, South America, etc.) once the EU has withdrawn from natural gas**. Lastly, to ensure an effective diversification of gas supply sources, the Commission could propose that a supplier may no longer supply gas to the EU in excess of a certain percentage (between 25% and 33%) of European consumption.

⁹³ Corbeau, A-S. Mitrova, T. 2023. Will the Ukrainian gas transit contract continue beyond 2024? *Center on Global Energy Policy*, June.

⁹⁴ Tagliapietra, S. 2023. Russian LNG: what measures will help the EU kick the habit? Bruegel, June.

⁹⁵ European Commission, 2022. *Commission welcomes political agreement on REPowerEU under the Recovery and Resilience Facility*, Press release, December.

⁹⁶ *Ibid.*

⁹⁷ Eisl, A. 2022. *An overhaul of the European fiscal framework?* Brief Jacques Delors Institute, November.

⁹⁸ Lindner, J, and Redeker, N. 2023. “It’s the politics, stupid” – don’t squander this golden rule opportunity for reforming the fiscal rules. Policy Brief. Jacques Delors Centre.

⁹⁹ In favour of a more modest proposal, the Strategic Technologies for Europe Platform (STEP) to support European leadership on critical technologies. European Commission, 2023. *EU budget : Commission proposes STEP*.

¹⁰⁰ Abraham, L., O’Connell, M., Oleaga, I.A. 2023. *The legal and institutional feasibility of an EU Climate and Energy Security Fund*. Occasional Paper Series. European Central Bank.

¹⁰¹ Martinez, M., Strupczewski, J., 2023. *Germany dashes hopes for new EU common borrowing*, Reuters, February.

¹⁰² McWilliams, B., Sgaravatti, G., Tagliapietra S., Zachmann, G. 2023. *How would the European Union fare without Russian energy?*, Bruegel, January.

- **Using an impact assessment, addressing the feasibility of extending the gas storage filling obligation to 2027 (instead of 31 December 2025 as currently planned).** This should be discussed at the start of winter 2023-2024 in light of how the situation related to Russian flows has developed, the gas substitution measures actually rolled out and the addition of new LNG production capacities worldwide.
3. Stepping up planning for energy demand reduction measures by revising [National Energy and Climate Plans](#), the first versions of which are set to be submitted to the European Commission in June 2023, to be finalised in June 2024. This could entail:
- **The European Commission publishing a communication proposing a sufficiency toolbox in autumn.** This communication could be an opportunity to introduce the first European definition of sufficiency. The wording could draw inspiration from the IPCC's definition and that proposed by the European Parliament in its report on the proposal for a Directive on the Energy Performance of Buildings¹⁰³. The toolbox could also list best practices for sufficiency policies to provide Member States with information about measures that can be implemented to reduce surplus energy demand fairly, and also guidance on inclusive decision-making. On this basis, the European Commission could invite Member States to discuss and include some of these measures in their updated National Energy and Climate Plans by June 2024.
 - An update of Member States' ambitions in light of the new targets of the Green Deal, in particular *FitFor55* and *REPowerEU*. In its notice on the guidance for the update of National Energy and Climate Plans¹⁰⁴, the Commission invites Member States to present demand reduction efforts decided on a European level, in particular the target to reduce gas consumption by 15%. More specifically, **national governments could include gas demand reduction pathways in their updates, which would entail the publication of target figures and incremental goals for sufficiency**, such as promoting collective housing, limiting temperatures in homes and deploying water flow restrictors to cut hot water consumption without compromising comfort. This revision of National Energy and Climate Plans should be an opportunity for Member States to begin to consider the content of their Social Climate Plans, which are set to be submitted to the Commission in June 2025. These Social Climate Plans should enable Member States to access a new Social Climate Fund created as part of *FitFor55* to offset the introduction of a European carbon price on heating and road transport ("ETS II"). While they are appropriately geared towards renovations to ensure energy performance in buildings, **Social Climate Plans could play a key role in reducing the gas demand of the most vulnerable households.** National Energy and Climate Plans should already include such measures.
 - The European Commission announced the publication of a **Heat Pump Action Plan** by the end of 2023. It would be necessary to replicate this exercise for **energy performance in buildings** to support the Renovation Wave Strategy, which aims to renovate 35 million buildings by 2030. Supporting these efforts on a European level involves **adopting a ban on new gas boilers by 2025**, as recommended by the International Energy Agency in its Net Zero scenario. This would mean revising the European Ecodesign Regulation¹⁰⁵. •

¹⁰³ Cuffe, 2023. [Report on the proposal for a directive on the energy performance of buildings](#). ITRE Committee, European Parliament.

¹⁰⁴ Official Journal of the European Union, 2022. [Commission Notice on the Guidance to Member States for the update of the 2021 - 2030 national energy and climate plans](#).

¹⁰⁵ Zill, M., Boye Olesen, G. Toulouse, E. 2020. Five years left. How ecodesign and energy labeling can decarbonize heating, ECOS – coolproducts.

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