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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**Repowering the EU through well-functioning markets
Short-Term Market Interventions and Long Term Improvements to the Electricity
Market Design**

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1. Introduction

Over the recent months, electricity prices in Europe have rapidly risen to a level much higher than in recent decades. This dynamic is intrinsically linked to the high price of gas, which increases the price of electricity produced from gas fired power plants, which are often needed to satisfy demand. Prices started rising rapidly last summer when the world economy picked up after COVID-19 restrictions were eased. Subsequently, Russia's invasion of Ukraine has exacerbated this situation.

Energy is an essential commodity for households and industry. This demands a clear policy response. At the same time, the current crisis shows the crucial importance of delivering Europe's Green Deal ambitions and of reducing dependence on fossil fuels, and notably on gas imports. Any measures must keep the long-term objective of climate neutrality in sight and avoid lock-in effects.

High gas and electricity prices can have significant negative social, distributional, and employment effects. Vulnerable and low-income households are hit particularly hard when both, gas and electricity prices, rise, affecting household budgets negatively.

The Toolbox presented by the Commission in October 2021 was designed to allow a co-ordinated approach to protect those most at risk and set out medium-term measures for a decarbonised and resilient energy system.¹

On 8 March 2022, the REPowerEU Communication² outlined a series of measures to strengthen the Toolbox to respond to rising energy prices. The Commission undertook to investigate all possible emergency measures to limit the contagion effect of gas prices on electricity prices and assess **options to optimise the electricity market design**.

Russia's invasion of Ukraine has been a stark reminder of Europe's strategic dependence on fossil fuels (gas, oil and coal) imports from third countries. Based on the Commission's communications, EU leaders agreed in Versailles on 10-11 March to phase out the Europe's dependency on Russian energy imports as soon as possible.

On 23 of March the Commission addressed to the European Council and the other European institutions a Communication on short-term emergency options to address the high energy prices³. On 24-25 March 2022, the European Council tasked the Commission to urgently reach out to energy stakeholders, and to discuss if and how the short-term options outlined by the Commission would contribute to reducing the gas price and address its contagion effect on electricity markets. Moreover, the European Council called on the Commission to "*submit proposals that effectively address the problem of excessive electricity prices while preserving the integrity of the Single Market and its level playing field, maintaining incentives for the green transition, preserving the security of supply and avoiding disproportionate budgetary costs.*"

¹ COM(2021) 660 final

² COM(2022)108 final

³ COM/2022/138 final

The aim of this Communication is twofold:

- Identify further short-term measures that the EU or Member States can take in both gas and electricity sectors to tackle effectively the impact of sustained high energy prices on consumers and companies or address a possible disruption of the gas supply.
- Set out options for optimising the functioning of the European electricity market so that it is better suited to withstand future price volatility and fit for the future decarbonised energy system, with an increasing share of renewables in electricity production.

2. Market Expectations

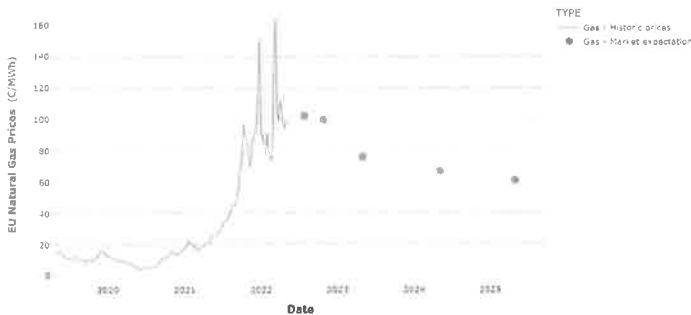
Gas and electricity prices have reached record levels in 2021 and hit all-time highs following the Russian invasion of Ukraine in the first weeks of March 2022. Gas prices, historically below 30 EUR/MWh, were recently around 100 EUR/MWh, peaking occasionally at more than 200 EUR/MWh.⁴ Consequently, wholesale electricity prices also increased strongly over the same period, due to gas-fired power plants often driving the price in EU power markets. For instance, German power prices, historically below 75 EUR/MWh, have averaged around 180 EUR/MWh this year so far, and have occasionally reached more than 400 EUR/MWh.

The market actors expect⁵ energy prices to remain high for the rest of 2022 and until 2024-2025, albeit to a lesser extent. Gas prices are currently expected to be at around 100 EUR/MWh until the end of next winter and to remain significantly above the long-term average for the foreseeable future, with expectations on electricity prices evolving accordingly. This forecast factors in the uncertainty in the market due to the current geopolitical tensions and the war in Ukraine.

In the short-term, the phasing-out of dependence on Russian natural gas imports will result in adjustments of demand and supply conditions and volatility in prices. Price levels will continue to be high with diversification exerting upward pressure. At the same time, the accelerated development of renewable energy sources and significant energy savings/demand response measures as presented in the REPowerEU plan should help mitigate these effects and contribute to lower electricity prices in the medium-term.

⁴ The market price of electricity is determined on the basis of the marginal generation unit.

⁵ Analysis of TTF forward curve from 29/04/2022, source: S&P Global Platts



Source: day-ahead and forward contracts TTF prices– S&P Global Platts

3. Short Term Intervention Measures

Following up to the March European Council’s mandate⁶, the Commission conducted a targeted outreach and collected the views of a wide range of energy stakeholders on the options for short-term interventions.

In particular, the Commission organised on 26 of April, a targeted stakeholder consultation meeting with the participation of market actors, non-governmental organisations, network operators, the Agency for the Cooperation of Energy Regulators (ACER) and national regulators, think tanks and academics (see annex for details). The consultation highlighted that there is a large convergence on key points.

First, there was support for designing short-term temporary measures so as to avoid unintended consequences on security of supply, decarbonisation and the integrity of the European energy market. Stakeholders expressed a strong preference for the widest possible use of the Toolbox, with special emphasis on measures directly targeting household consumers and businesses.

Second, the outreach to stakeholders revealed concerns about the risk of significant distortions stemming from interventions directly affecting wholesale market functioning. Energy stakeholders consider that the current price formation ensures an efficient use of resources, starting with the cheapest and least polluting generation, which becomes more important as resources become scarce.

Stakeholders also feared that interventions into price formation could increase gas demand in the EU, undermining the energy transition and the European Green Deal objectives and endangering the EU’s security of supply. Short-term price interventions could remove the interest of market participants to hedge against the risk of high prices in the future.

⁶ In the meeting of 24 and 25 March 2022, the European Council tasked the Commission, as a matter of urgency, to reach out to the energy stakeholders, and to discuss, if and how, these short-term options would contribute to reducing the gas price and address its contagion effect on electricity markets, taking into account national circumstances. See European Council conclusions: <https://www.consilium.europa.eu/en/documents-publications/public-register/public-register-search/results/?DocumentNumber=1%2F22&SubjectMatters=CONCL>.

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European energy markets are highly integrated. Member States rely on these well-functioning and interconnected markets to ensure their security of supply and reduce the overall cost of the system. ACER has estimated that the average yearly gain from the integrated electricity market for European consumers is about EUR 34 billion per year.⁷ These social welfare gains are particularly important in crisis times as they lead to considerable savings for consumers. According to ACER, more than one third of the total benefits achieved from cross-border electricity trading in Europe in 2021 correspond to the last quarter of 2021, when electricity prices were at their highest.

Stakeholders stressed that any interventions in energy markets need to preserve the core of the internal market, namely the efficient allocation of resources and security of supply through trade and solidarity. Therefore, if price-related market interventions in wholesale market were considered despite their significant downsides, and leaving aside the current legislative framework, stakeholders signalled a preference for intervening in gas markets as opposed to the electricity markets. Whenever considering such interventions, stakeholders underlined that it would be important to carefully assess their possible implications to the supply of gas to the Union, due to the global nature of the market, in particular LNG markets, and to indicate clear time limitations to design these interventions as temporary measures. In its final report⁸, published on 29 April 2022, ACER also looks into various exceptional measures contemplated in the context of the current emergency situation as well as possible structural measures to hedge electricity consumers from possible future prolonged periods of high energy prices and cautions against the distortive effects of direct wholesale market interventions in the current crisis context.

Member States' electricity and gas sectors vary significantly based on their economic situation, energy market and cost structure, the generation mix and the levels of interconnection as well as geographical location which has gained additional meaning with the Russian war in Ukraine. The most appropriate strategies for a crisis response consequently vary significantly between Member States and must consider the different national and local situations.

The Commission invites Member States to continue to implement the measures of the Toolbox, as they constitute the first and most fundamental line of action and support to address the crisis at the level of consumers most affected already by the crisis. In line with the measures presented in the Toolbox, Member States, to the extent that they have not done yet already, could provide **time limited compensation measures** and **direct support to energy-poor end-users** including groups at risk.

Reductions in electricity demand would also have a clear price-reducing effect. Member States should incentivise demand reductions in line with the actions proposed in the EU 'Save Energy' plan.⁹ Further to the measures of the Toolbox, the Commission identifies below a number of possible short-term intervention measures in both the gas and electricity sectors with a potential to effectively tackle the impact of sustained high energy prices on consumers. All the short-

⁷ ACER's Final Assessment of the EU Wholesale electricity market design, April 2022, p. 21.

⁸ ACER (2022). Final Assessment of the EU Wholesale Electricity Market Design.

⁹ (add. Reference). The EU 'Save Energy' plan proposes a two-pronged approach aiming at achieving short-term energy savings through behaviour changes and accelerating and strengthening mid- to long-term energy efficiency measures.

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term intervention measures presented below should be temporary and should not be applied beyond the next heating season, or ending 1 June 2023.

a) Gas Market Interventions to Address the Cause of the Crisis

High gas prices due to the increase in demand after COVID-19 and the uncertainty created by the Russian invasion in Ukraine are the root cause of the current crisis. Given the important role gas plays still today in power generation, finding ways to address the high gas prices will therefore also help to address the fallout in electricity markets as well as its social and employment implications. Increasing supply from both inside and outside the EU will have a significant impact in that respect.

The Commission and Member States have recently set up the **EU Energy Platform** that will help secure energy supply at fair prices and reduce – and ultimately phase out – EU dependency on Russian gas. The Platform will aggregate gas demand in the EU on a voluntary basis to attract reliable supplies from global markets and to mitigate price effects. It will in turn also be instrumental for ensuring an adequate level of gas storage.

To address the impact of sustained high prices for consumers, one possible measure would be to allow Member States to **extend** in the current exceptional circumstances and for a limited time **retail price regulation for natural gas. This would be particularly relevant when gas** plays a particular role in heating and industrial feedstock¹⁰. The volumes covered by such tariffs would have to be limited so as not to exceed the volume of the previous gas consumption of the consumers concerned to avoid increased gas consumption as much as possible.

Emergency liquidity support measures can provide relief for commodity traders which are currently confronted with high margin calls as a result of significant market volatility. If they contain State aid, those interventions need to take place in full respect of the respective provisions. They need to be limited, proportionate and transparent and must be targeted to avoid excessive distortions. The Temporary Crisis Framework for State Aid can be used by Member States for their targeted measures. Finally, those measures should not undermine the sanctions regime imposed on Russia.

The **European gas exchanges (e.g. TTF)** have in recent times often seen extreme volatility in trading during the day. To address possible distortive effects on the price formation due to possible speculative moves one option would be to revisit the limits applied to this short-term volatility in their internal trading rules.

b) Preparing for a Full Disruption of Russian Gas Supplies

³While the previous options for policy or regulatory intervention are calibrated to address a situation of sustained high prices, a different set of measures may become worth considering in the event of a sudden large scale or even full disruption of the supplies of Russian gas leading to unbearably high gas prices and inadequate supply of gas.

¹⁰ Retail gas market should be understood as including also industrial users.

To address a security of supply shock the EU has instruments in place, such as the national solidarity mechanisms and the emergency plans developed under the Security of Supply Regulation with both national and regional measures, reinforced regional cooperation on security of supply and the regular exchanges between Member States and the Commission in the Gas Coordination Group. Solidarity agreements and the solidarity mechanism foreseen in the Regulation are also part of the existing security of supply rules.

However, these solidarity mechanisms are meant to be triggered in case of a national security of supply emergency. In case of further gas disruptions affecting several Member States at the same time, additional measures may be necessary. The existing tools could usefully be complemented with a coordinated approach to identify essential consumers which are not already beyond the currently protected under the existing legal framework and emergency plans. The Commission suggests establishing common principles in this regard to prepare for a possible wider disruption and an a regional or Union emergency¹¹ where gas markets no longer optimally match supply and demand and could leave some vital demand unsatisfied¹². This could call for a reduction of gas demand even in Member States less directly impacted so as to ensure supply for essential functions or sectors in more directly impacted Member States. The extent to which legislative changes would be required to ensure a harmonised approach in this respect would have to be assessed. In this context, the Commission invites Member States to accelerate the adoption of preparedness measures to a possible disruption to the supply of Russian gas.

Such intervention may trigger the need for an administrative price for gas to be established in parallel, such as a maximum regulated price for natural gas delivered to European consumers and companies (EU price cap) to cover the period of the declared Union emergency. This type of price intervention would be limited to the duration of the EU wide emergency situation. One possibility would be to limit price formation during this disruption scenario by capping the price on European gas exchanges, but such a price cap can in general be introduced in different ways and can intervene at different levels of the gas value chain. If compensation is foreseen, this type of intervention could require excessive public financing.

The level of such an EU gas price cap would have to be carefully set [at sufficiently high levels above any historic market price levels \(avoiding excessive prices only\) in order to minimize negative effects. One major negative effect is that we lose the price as an important information for gas demand in times of crisis. Another very important negative effect is that the announcement of a gas price cap in times of emergency leads to lower storage injection today, which must be avoided by any means.](#) Such an EU price cap in a major disruption scenario would have the advantage of limiting the damaging price effects of the disruption for consumers, companies and essential service providers to pre-established levels. It would have to be ensured that the introduction of such a price cap does not worsen the EU's ability to attract pipeline and LNG supplies from alternative suppliers, which will be vital in such a scenario as any reduction or limitation of alternative supply channels in an emergency situation would lead to a further deterioration of the shortage situation. It would also automatically limit the potential for price-driven reductions of gas demand, hence negatively impacting the supply-demand balance. [The market price should be used to drive demand as](#)

¹¹ This is declared by the Commission at the request of at least two Member States and may be also declared at the request of one.

¹² [Add reference to chapeau communication]

long and as much as possible to avoid immediate and extensive rationing with all its political implications and inefficiencies. If compensated and unless accompanied by significant curtailment, this type of intervention could require significant amounts to be financed.

c) Electricity Market Interventions

While the previous measure intervenes in the gas market as the root cause of the high price problem, there are also further measures that can be applied on the wholesale electricity market, taking into account national and local contexts:

- First, in line with the Communication “Security of supply and affordable energy prices: Options for immediate measures and preparing for next winter”, the Commission considers that taxation or regulatory measures which are aimed at **removing infra-marginal rents of certain baseload electricity generators** created by the current crisis situation can be justified. Revenues can help finance targeted and temporary measures in support of vulnerable households, especially those at risk of energy poverty, and businesses. These measures should be non-discriminatory and designed in line with the guidance provided in Annex 2 to the REPowerEU Communication. However, in light of the outlook for electricity prices over the next months, and the need to maintain consumer relief measures in place for a longer period, the Commission considers that those measures can be extended beyond 30 June 2022 to cover the next heating season.
- Second, in addition to the measures already set out in Annex 1 to the REPowerEU Communication which remain applicable, a temporary extension of the scope of **regulated retail prices could be envisaged to cover** also small and medium-sized enterprises. This extension would have to be limited in terms of the quantities covered so as not to trigger an increase of consumption.
- Thirdly, some Member States are envisaging temporary measures to **subsidise the input costs of marginal power generation technologies** (e.g. to introduce a reference price for gas used for electricity production) with a view to lowering prices on the electricity market. Such measures should be designed in a way compatible with EU Treaties, in particular with regard to the absence of restrictions to cross border exports sectoral legislation and State aid rules and notified to the Commission for approval. The Commission notes that, depending on their design, such measures may entail significant costs. These measures should be strictly limited in time and tailored for regions with very limited interconnection capacity, high influence of gas in price setting and consumers particularly exposed to wholesale electricity prices. The measures should also avoid penalising market participants which secured their electricity with forward contracts. Member States deciding to introduce such measures are invited to, inter alia, consult affected neighbours and stakeholders and determine and monitor the additional gas consumption and increased CO2 emissions resulting from the intervention.
- Finally, the increased trade flows across bidding zones due to rising price differences between such zones may lead to a considerable increase of congestion rents. These so-called **congestion revenues** must be used, as a priority, to ensure network capacity. These rents could conceivably and in duly justified cases be exceptionally used to finance emergency measures targeting consumers, notably vulnerable households and those at risk of energy poverty and businesses, under the control of regulatory authorities.

In addition, to accelerate as much as possible to the use of demand response, the Commission urges the effective and rapid implementation of the Electricity Directive, in particular provisions that support active consumers and demand response. The Commission has already initiated discussions with Member States to collectively address the challenges related to this implementation process.

4. A future-proof Electricity Market Design

a. European Council Conclusions and ACER Report

The European Council invited the Commission to put forward any necessary initiatives concerning the electricity market design, taking into account the final ACER report¹³, published on 29 April 2022.

ACER's report concludes that the fundamentals of the European electricity market design bring significant benefits to European consumers and calls Member States to rapidly implement any pending market regulations and rules. At the same time, the report indicates several ways in which the current market design can be complemented and improved to make it future proof and fit for a fully decarbonised electricity mix.

ACER identifies a series of challenges ahead, particularly the need to accelerate investments in renewable generation, to ensure low carbon supply and demand response when variable renewable production is not available, to tackle rising price volatility and enhancing flexibility of the power system.

As a response to these challenges, ACER identifies several options. First, competitive long-term markets would help to "insure" against risks. However, their current liquidity in the majority of markets is low (there are few offers to buy or sell), and products offered are limited (to up to two to three years ahead in some markets except for renewable power purchase agreements). Second, other tools can contribute to secure the needed investments, such as support schemes for renewables or other flexible resources, including demand response and storage. Commercial power purchase agreements could be promoted and facilitated, by opening them to smaller actors beyond vertically integrated companies, enabling cross-border contracts and designing State support schemes, in line with State aid rules where applicable, for financial guarantees¹⁴ to tackle counterparty risk¹⁵. Those public support and commercial instruments could be combined. Third, enhanced coordination, including across borders between Member States, in investment decisions would support the Union in meeting its targets. Deepening market integration (across all electricity markets) is a no-regret option to further strengthen coordination at the EU level and reap more benefits.

b. Possible Market Reforms

¹³ ACER (2022). Final Assessment of the EU Wholesale Electricity Market Design.

¹⁴ Communication from the Commission – Guidelines on State aid for climate, environmental protection and energy 2022, C/2022/481

¹⁵ [Include Reference to permitting recommendation]

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Based on the conclusions of the ACER report and its exchanges with stakeholders, the Commission has identified a set of issues which deserve to be further analysed with a view to establishing whether any necessary legislative steps or guidance to Member States are required to optimise the functioning of the electricity market design. The issues relate to questions such as how:

- protect end consumers and deliver affordable electricity in both short and long run;
- ensure the resilience of the electricity market and system in particular to cope with high amounts of variable renewables and more decentralised production structure; and
- support the achievement of the European Green Deal.

The following areas would be addressed in this process.

Electricity as a basic right for vulnerable consumers

Union legislation¹⁶ recognises that adequate heating, cooling and lighting, and energy to power appliances are essential services. The European Pillar of Social Rights¹⁷ includes energy among the essential services which everyone is entitled to access. With energy prices at an unprecedented level, the number of citizens facing energy poverty is likely to increase, and even those who do not classify as energy poor can experience lower standards of living.

As announced in the October Energy Prices Communication the Commission has established the Coordination Group on Vulnerable Consumers and Energy Poor where Member States have already exchanged best practice on how to support and protect consumers in the current circumstances. The electricity market design could include ways to ensure that all citizens have access to the energy they need including ensuring that certain consumers have access to a minimum level of electricity demand at a reasonable price, regardless of the situation in the electricity markets.

Protecting consumers against high prices and excessive volatility

One way of mitigating the risk of future increases in power prices is to hedge. The simplest way to hedge is to engage in a supply agreement at a fixed price. There are established markets across the EU where electricity can be traded for forward delivery. However, some of those markets lack liquidity, namely for longer dated contracts, so regulatory interventions may be required to improve liquidity on forward power markets.

The current crisis has demonstrated the benefits of market-based instruments to protect consumers against price risks. These instruments typically involve a contractual promise by a generator to make electricity available to certain consumer categories at pre-established conditions once the normal market price hits a certain level. They hence provide for a

¹⁶ Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU, see recital 59 linked to Articles 5, 28 and 29

¹⁷ The European Parliament, the Council and the Commission proclaimed the European Pillar of Social Rights in 2017 at the Gothenburg Summit. The Pillar sets out 20 principles. Principle no 20 states: "Everyone has the right to access essential services of good quality, including water, sanitation, energy, transport, financial services and digital communications. Support for access to such services shall be available for those in need."

contractual insurance against price risk. As with any type of insurance, the reduction of the price risk in such constructions of course comes at a cost. Some Member States have already used these types of contracts as part of the capacity mechanisms that they use to ensure security of electricity supply. In this context the contracts have been referred to as reliability options. Academics have recently suggested an alternative contract called affordability options, designed to protect consumers not against short term price spikes but rather against sustained high prices.

Following the rapid increase of wholesale power prices, some suppliers went bankrupt and were not able to honour their supply obligations. This meant that customers had to choose new suppliers at short notice and were often only able to negotiate terms which were less favourable. Requirements for suppliers to hedge part of their supply obligations and other regulatory requirements to ensure that suppliers are sufficiently robust to withstand future crises may be appropriate to ensure that customers can rely on their suppliers and do not pay more for the supply of electricity than they originally agreed to. Suppliers could also be required to have fixed priced offers available in their portfolio similarly to existing requirements to offer dynamic contracts to customers.

Ensuring investments in firm and low carbon capacity

To ensure long-term security of supply and provide investor certainty, Some Member States may aim to use it will need to be further assessed whether capacity mechanisms as have to become a long-term feature of the electricity system. Therefore, it needs to be assessed and what this would mean for their integration in the electricity market. These mechanisms would need to be designed to ensure investments in firm renewable and low carbon capacity compatible with the Union's climate targets. Such capacity mechanisms could also integrate some of the contractual affordability mechanisms referred to above.

The crisis has also shown that where generation is publicly supported, as is often the case for renewables, the support must be designed to ensure investment while avoiding excessive returns for investors in periods when market prices are high. Two-way contracts for differences (CfDs), under which the operator receives a top-up when market prices are low and returns it when they are high, have been used in some Member States to achieve this aim. Well-designed CfDs can contribute to making the electricity price formation more independent from the cost of natural gas and it may be useful to rely on this model as a default for new renewables investments as they are mainly whether driven. However, CfDs have the disadvantage of setting a "produce and forget" incentives (run as many hours as possible) and thus should not be applied to other generation further "right" in the merit order as they need to run flexibly in the market, and other public investments in generation (as for nuclear generation). In any case, using CfDs need to remain optional for Member States.

Enhancing demand response and flexibility to reduce peak prices

Resources or infrastructure bringing more flexibility such as demand-side response and storage enable consumers to react to prices, consuming more when there is excess generation available and reducing their consumption when supplies are tight. This reduces overall costs and allows them to manage their costs and helps effectively integrate high shares of variable renewable

Commented [A1]: no highjacking gas debate for reopening of capacity market debate through the backdoor

Capacity markets will not help to reduce Gas prices.

Investment case for alternatives has been improved, through high prices, thus even less need of CRM,

Commented [A2]: CfDs have severe downsides, too, particularly the « produce and forget » incentive

might be an option for RES

cannot support CfDs for nuclear as this will lead to very inflexible markets.

Nuclear can be addressed by national capacity markets. Capacity payments prevail the incentive for flexible operation !

In any case, introduction CfDs need to remain purely optional for MS

energy. Investments in such flexible technologies, including the roll out of smart grids in accordance with the Electricity Directive, could be financed under Union funds and can reduce the need for more traditional capacity mechanisms which often finance gas-fired or other fossil generation.

The Digitalisation of Energy Action Plan scheduled for adoption in September will propose measures to enhance data exchange and interoperability, and to support the development of digital tools for consumers. This will make it easier for consumers to valorise their flexibility, for example by responding to price signals or matching their consumption with their home production (e.g. from PV panels on their roofs). The Commission also proposes to accelerate the development and adoption of a new network code dedicated to demand response.

Through greater empowerment of consumers, it is also important to promote collective and individual self-consumption schemes as stressed in the EU Solar Strategy¹⁸ to increase the generation of solar power in the EU in the coming years.

Innovation in electricity and gas infrastructure

Innovation in electricity and gas infrastructure does not appear to be explicitly incentivised or recognised in the national regulatory framework of many Member States. This is particularly an issue where the gains from innovative approaches are uncertain. Moreover, the national regulatory frameworks of many Member States appear to set barriers to innovation on electricity and gas infrastructure. For instance, sometimes they do not have specific provisions related to innovation or are designed in such a way that set out a bias towards capital expenditure (CAPEX) based solutions instead of operational expenditures (OPEX-solutions) or that deter TSOs from investments due to perceived high project risk and strict penalties for not meeting deadlines. Member States should remove those barriers to innovation and develop instead innovation-oriented regulatory frameworks, while avoiding fossil fuels based stranded assets.

Reducing costs and windfall profits through locational pricing

Another issue identified by ACER is the need for more attention to locational signals in the European market design. This entails creating different market prices in different places to reflect the local balance of supply and demand and the availability of transmission. A 2019 study identified cost savings of 4% from introducing locational pricing in Europe¹⁹. The greater the increase of renewables in the energy mix, the more important these benefits are expected to become. A 2020 study anticipates 10% higher 2040 system costs in the absence of locational prices²⁰. The possible implications of mechanisms to strengthen locational price signals will be analysed further.

Market surveillance and transparency

Regulation 1227/2011 on wholesale market integrity and transparency²¹ (so-called REMIT) was designed more than a decade ago to ensure that consumers and other market participants

¹⁸ (add ref. XXX)

¹⁹ Tractebel, 2019. Nodal pricing in the European internal electricity market.

²⁰ NERA, 2020. Cost Benefit of Access Reform: Modelling Report.

²¹ OJ L 326, 8.12.2011, p. 1–16.

can have confidence in the integrity of electricity and gas markets, that prices reflect a fair and competitive interplay between supply and demand, and that no profits can be drawn from market abuse.

Although there has not been any evidence of market abuse as a cause of the current crisis, ensuring an up to date and robust framework to protect against such abuse is very important in periods of high prices and market volatility. The REMIT framework could be reviewed to explore the scope to more effectively mitigate the risks of market abuse by improved market transparency, enhanced market data quality and collection as well as better enforcement at EU level.

5. Conclusion

The Commission invites the European Council to discuss the short term measures to address high prices proposed in this Communication, and, in line with [reference to chapeau communication], it invites the acceleration of preparedness measures to a possible disruption to the supply of Russian gas.

Looking beyond the short term, the Commission considers that, based on the ACER report and its outreach to stakeholders, the current electricity market design delivers an efficient, well integrated market, allowing Europe to reap all the economic benefits of a single energy market, ensuring security of supply and sustaining the decarbonisation process. The Commission calls on Member States to ensure the full implementation of the electricity market legislation, in particular to ensure cost-reflective tariffs and the removal of barriers to the use of flexible resources, which will allow integrating variable renewable electricity and enhancing the flexibility of the grid to facilitate energy system integration. The Commission highlights the need to fast track the implementation of the REPowerEU plan to fast forward the phasing out of Russian gas and invest in a resilient energy system. The Commission will continue to support Member States in the preparation and implementation of reforms and investments to phase out the dependency on fossil fuel imports from Russia, inter alia, via the Technical Support Instrument.

However, there are areas where adjustments are necessary to take into account the future energy landscape and generation mix, new emerging technologies as well as the lessons learnt from the current crisis. Such adjustments should contribute to optimise the functioning of the electricity market design and make it better fit to drive a cost-effective decarbonisation of the electricity sector, deliver affordable prices for consumers and increase its ability to withstand price volatility. This Communication has identified a set of issues for which these adjustments seem warranted. Building on this preliminary work, the Commission will launch an impact assessment process and engage more widely with stakeholders and national regulatory authorities with a view to making the necessary adjustments to the EU electricity market design and to the extent necessary, its legislative framework.

Annex: detailed overview of stakeholders' input

<p>Electricity producers</p>	<p>Strong preference for targeted support to consumers who need it the most. Any price intervention in the wholesale electricity markets is considered highly problematic as: (i) they would not target consumers who needs support the most; (ii) would disrupt market dynamics and jeopardise the market functioning and (iii) would distort market signals to investors.</p> <p>Taxation of returns of certain market participants would damage the investment environment by destroying investors' confidence; if applied, such measures should only be a "last resort" solution and only of a temporary nature.</p>
<p>Electricity end consumers representatives</p>	<p>Stressed the need to support financially the consumer, while incentivising energy efficiency. Further actions such as installing photovoltaic panels or heat pumps should be facilitated. Urged for the implementation of the legislative framework for electricity markets (2019 Electricity Regulation and Directive), to enable prosumers to become a reality. The representatives of local energy communities recalled the importance of ramping up local energy planning and using local resources. Industrial electricity consumers' representatives called for stronger use of State aid tools, and for addressing the high returns of generators via fiscal measures. Demand side response, deployment of smart meters and liquid long-term markets would also be part of the solution to the high energy prices.</p>
<p>Electricity power exchanges</p>	<p>Opposed to price interventions in the wholesale electricity markets. They emphasised that price caps should be avoided because they undermine price formation and hamper the ability of the energy markets to deliver a secure and affordable supply of electricity. They warned that such price caps harm the long-term market, as market participants would lose the incentive to hedge themselves against high prices. They recalled the key role of electricity market coupling in building a single energy market, which should be preserved as it ensures an efficient use of the resources.</p>
<p>Electricity demand response representatives</p>	<p>Recalled the strong potential of demand response in lowering peak demand for electricity, thus softening peak prices. They pointed out that direct support to consumers and State aid, if aligned with decarbonisation objectives, is the most efficient solution. Besides, they urged for the implementation of the Union's legislative framework on electricity markets (2019 Electricity Regulation and</p>

	Directive), to remove barriers to the development of demand side response.
Electricity storage representatives	Indicated that price interventions (like price caps) risk having long-term distortive effects on the market and harming the Green Deal objectives. They recalled the need to implement the Union's legislative framework on electricity markets (2019 Electricity Regulation and Directive) and accelerate permitting procedures for renewable projects enabling storage.
Electricity grid operators	Welcomed the toolbox of measures in the Commission Communication of October 2021. They recalled the need to thoroughly assess the impact of emergency measures and keep the fundamentals of the market functioning.
Gas industry	Expressed support for prioritising the provision of direct support to consumers. Raised concern about interventions in the gas wholesale market and the introduction price caps on the wholesale gas markets. They considered that they would hinder the Union's competitiveness and ability to attract volumes in the gas market. They also expressed scepticism with an intervention in the gas market concerning negotiated volumes and prices, by stating that purchasing is a core element of a competitive gas market in the Union, which may be hampered by collective action. Gas diversification should be part of the solution, including domestic gas production.
Gas grid operators	Provided an operational insight of the situation for winter 2022-2023, pointing out that all gas sources are used at their maximal capacities. However, maximising the filling of storage could be a feasible solution, inducing however a change in gas flows inside Europe, with potential bottlenecks to tackle.
Energy traders	Opposed to national interventions in wholesale electricity markets as they would undermine cross-border trade and the efficiency of the internal energy market. In this respect, the introduction of price caps should be avoided. Marked preference for measures targeting retail consumers. They call for coordination regarding the management of gas demand.
Technology providers	Stressed the need for further investment as regards infrastructures and digitalisation, enabling energy new services to develop.
Think Tanks	Agreed on the need to let the wholesale electricity and gas markets work. Any price intervention would harm the competitiveness of the wholesale markets as well as the efficient use of the energy resources and may lead to further need for administrative measures in the future.

	<p>Regulatory intervention limiting returns of certain market participants would increase requirements for risk premiums, leading to higher costs for energy.</p> <p>Digitalisation, development of demand side response, deployment of smart meters and further integration of the European electricity market are quoted as fundamental long-term elements for improving the current market design.</p>
Non-governmental organisations	<p>Warned that of the risk that measures proposed in the options may increase the Union's dependence on fossil fuels (such as price caps).</p> <p>Marked preference for options that provide direct support to consumers.</p>
Academia	<p>General reluctance to intervene on price formation, particularly on the electricity wholesale market. Marked preference for providing direct support to consumers to reduce energy bills.</p> <p>Observed that an intervention on gas prices and volumes would need to rely on a European solidarity plan for coordinated curtailments within the EU.</p>