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Public Consultation: Revision of the EU's electricity market design

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Electricity Market Design

The consultation document with the questions can also be downloaded here:

EMD_Consultation_document.pdf

Introduction

Background

Over the last year, electricity prices have been significantly higher than before. Prices started rising rapidly in summer of 2021 when Russia reduced its gas supplies to Europe while global demand picked up as COVID-19 restrictions were eased. Subsequently, Russia's invasion of Ukraine and its weaponisation of energy sources have led to substantially lower levels of gas delivery to the EU and increased disruptions of gas supply, further driving up the price. This has had a severe impact on EU households and the economy. High gas prices influence the price of electricity from gas fired power plants, often needed to satisfy electricity demand.

In the immediate reaction to global dynamics, the EU provided an energy prices toolbox with measures to address high prices (including income support, tax breaks, gas saving and storage measures). The subsequent weaponisation of gas supply and Russia's manipulation of the markets through intentional disruptions of gas flows have led not only to skyrocketing energy prices, but also to endangering security of supply. To address it, the EU had to act to diversify gas supplies and to accelerate energy efficiency and the deployment of renewable energy.

Following the Russian invasion of Ukraine in February 2022, the EU responded with REPowerEU - a plan for the Union to rapidly end its dependence on Russian energy supplies by strengthening the European resilience and security, reducing energy consumption, accelerating the roll-out of renewables and energy efficiency, and securing alternative energy supplies. The EU also established a temporary State Aid regime to allow certain subsidies to soften the impact of high prices. Further, to address the price crisis and security concerns, the EU has agreed and implemented a strong gas storage regime, effective demand reduction measures for gas and electricity, and price limiting regimes to avoid windfall profits in both gas and electricity markets.

The EU Electricity Market Design

The current electricity market design has delivered a well-integrated market, allowing Europe to reap the economic benefits of a single energy market in the normal market circumstances, ensuring security of supply and sustaining the decarbonisation process. Cross-border interconnectivity also ensures safer, more reliable and efficient operation of the power system.

Market design has also helped the emergence of new and innovative products and measures on retail electricity markets – supporting energy efficiency and renewable uptake and helping consumers reduce their energy bills also through emerging services for providing demand response. Building on and seizing the potential of the digitalisation of the energy system, such as active participation by consumers, will be a key element of our future electricity markets and systems.

In the context of the energy crisis, the current electricity market design has however also demonstrated a number of shortcomings. The reforms the Commission will undertake will address those shortcomings and ensure stable and well-integrated energy markets, which continue to attract private investments at a sufficient scale as an essential enabler of the European Green Deal objectives and the transition to a climate neutral economy by 2050.

In addition to these shortcomings, the European electricity sector is facing a number of more long-term challenges triggered by the rising shares of variable renewable energy and the progressive drive towards full decarbonisation by 2050. This includes ensuring investments, not just as regards renewables but also as regards weather independent low-carbon technologies until large scale storage and other flexibility tools become available. Stronger locational price signals in the system may be needed to ensure that the investments take place where they are needed, reflecting the physical reality of the electricity grid whilst at the same time ensuring incentives for cross-border long-term contracting. Some of these challenges will require ongoing policy reflections going beyond the scope of the current reform.

Making Electricity Bills More Independent from the Short-Term Cost of Fossil Fuels

The strong focus of the current market design on short-term markets, still very often determined by volatile fossil fuel prices, has exposed households and companies to significant price spikes with effects on their electricity bills. Many consumers found they had no option but to pay higher electricity prices driven by wholesale gas prices – either because they had no access to electricity cheaper electricity from renewable sources or could not install solar panels themselves.

The current regulatory framework regarding long-term instruments has proven insufficient to protect large industrial consumers, SMEs and households from excessive volatility and higher energy bills.

The gas price increase together with the strong role that short-term markets play in today's electricity market design have also boosted the revenues and profits well beyond the expectations of many generators with lower marginal costs such as renewables and nuclear ("inframarginal generators"), while receiving – in some cases - public support as well.

Short-term markets remain essential for the integration of renewable energy sources in the electricity system, to ensure that the cheapest form of electricity is used at all times, and to ensure that electricity flows smoothly between Member States. Whilst short-term price spikes can in general incentivize consumers to reduce or shift their demand, sustained high prices over a longer period translate into

unaffordable bills for many consumers and companies.

This is why there is a need to complement the regulatory framework governing these short-term markets with additional instruments and tools that incentivise the use of long-term contracts to ensure that the energy bills of European consumers and companies - and the revenues of inframarginal generators - become more independent from the fluctuation of prices in short-term markets (often driven by fossil fuel costs) and thus more stable over longer periods of time. The reforms should create a buffer between consumers and short-term markets, ensuring that they will be better protected from extreme prices and that electricity bills better reflect the overall electricity mix and the lower cost of generating electricity from renewables. Electricity bills across Europe should depend less on the short-term markets, with an increasing share of consumers shifting into more stable and affordable longer-term pricing arrangements.

There are two main types of long-terms contracts which allow to pass on the benefits of renewables to all consumers. One is power purchase agreements (PPAs) between private parties which ensure that electricity is sold on a long-term basis at an agreed price, therefore not determined by short-term markets. Power purchase agreements bring multiple benefits. For consumers, they provide cost competitive electricity and hedge against electricity price volatility. For renewable projects developers, they provide a source of stable long-term income. For governments, they provide an alternative avenue to the deployment of renewables without the need for public funding. Although power purchase agreements are becoming more widespread in the EU and the Renewable Energy Directive obliges the Member States to remove unjustified barriers to their development, the overall market share of power purchase agreements remains limited. The growth of power purchase agreements is concentrated in some Member States only and confined to large companies.

The Commission will suggest ways in which the share of PPAs in the overall electricity market can be increased and their roll-out incentivised through the market design. The uptake of power purchase agreements, in particular by small and medium companies, can, for example, be more widely promoted by public tendering for renewable energy in which a share of a project could be contracted through power purchase agreements. Credit guarantees to power purchase agreements backed by public actors could be considered as a form of support that could efficiently drive the emergence of a power purchase agreement market. Potentially, measures could be considered to ensure that industrial consumers use the full potential of power purchase agreements to lower their exposure to short-term markets and that energy suppliers more actively enter into the power purchase agreement market.

The other type of long-term contracts applies where public support is needed to trigger investments, so-called two-way contracts for difference (“two-way CfDs”). These contracts ensure that the income of the generators in question (and the corresponding cost for consumers) provides an adequate incentive to invest and is less dependent on short-term markets. These contracts for difference are typically established by a competitive tender process, allowing support to be channelled to the projects with the lowest expected production costs. In situations of very high prices two-way CfDs would provide Member States with additional funds for reducing the impact of high electricity prices on consumers.

The upcoming reform offers an opportunity to present ways in which two-way CfDs can be integrated into the electricity market design. A number of issues need to be considered in this context, notably as to the extent to which the use of CfDs becomes mandatory for investments involving public support and whether the use of such contracts should only cover new generation assets entering the market or also certain types of existing generation assets.

In any case, given the multiple benefits of the power purchase agreements, the actions of the reform concerning the CfDs should not affect the development of the power purchase agreement market across the EU. Both instruments are necessary complements to achieve the necessary deployment of renewables.

- The simplest way to introduce two-way CfDs would be to complement the existing principles for support schemes with the specific ones to govern such contracts in the regulatory framework, with Member States deciding whether or not to use these instruments to drive new investments in inframarginal generation.
- A more binding way to anchor these contracts in the regulatory framework would be to require that all investments involving the use of public support rely on such contract structures. This would need to be carefully calibrated to ensure that CfDs provide the necessary incentives at the least cost for consumers.
- Another option would be to not only envisage the use of CfDs for new generation but also to allow Member States to offer contracts on certain types of existing inframarginal generators (e.g., for specific types of technologies). These contracts could be awarded to existing generation, where possible, on the basis of competitive bidding.
- A more far-reaching approach would be to not only envisage the use of CfDs for new generation but also to allow Member States to impose these contracts on certain types of existing inframarginal generators (e.g., for specific types of technologies). Contrary to the situation for new generation, the contracts for these types of existing generators would typically not result from market-based tendering but would result from ex-post price regulation. Whilst this would accelerate the uptake of contracts for difference, it would also create significant uncertainty for investors in renewables. This could risk the necessary investments in this type of generation, increase the costs of those investments and as a result be counterproductive.

Driving Renewable Investments – Europe's Way Out of the Crisis

Increasing renewable energy deployment as well as electrification in general, is critical for Europe's security of supply, the affordability of energy and achieving climate neutrality by 2050. The accelerated deployment of renewables and energy efficiency measures will structurally reduce demand for fossil fuels in the power, heating and cooling, industry and transport sectors. Thanks to their low operational costs, renewables can lower energy prices across the EU. Furthermore, faster deployment of renewable energy will contribute to EU's security of energy supply.

Any regulatory intervention in the electricity market design therefore needs to preserve and enhance the incentives for investments and provide investors with certainty and predictability, while addressing the economic and social concerns related to high energy prices.

Alternatives to Gas to Keep the Electricity System in Balance

The consultation also covers ways to improve the conditions under which flexibility solutions such as demand response, energy storage and other weather independent renewable and low carbon sources, compete in the markets. These include measures aimed at incentivising the development of such flexibility solutions in the market (such as adapting the tariff design of system operators to ensure that they fully consider all flexibility solutions and use the existing network as efficiently as possible, allowing for access to more detailed data from electricity consumers through the installation of submeters or developing products

to reduce demand or shift energy consumption in periods of high demand or prices) and targeted measures to improve the efficiency of the short-term markets, with particular focus on the intraday market (such as allowing trading across Member States closer to the delivery of electricity and further increasing the liquidity in this market). In addition, the consultation seeks input on how to safeguard security of supply and adequacy also in situations of unforeseen crisis to ensure timely investments in capacity.

Combined with renewable generation and enhanced investments in grid capacity and inter-connectivity, this should contribute to reducing the role that natural gas-fired generation plays as a flexible source of generation and will, over time, replace, and thereby, phase out natural gas-fired power generation in line with the EU's decarbonisation targets.

Lessons Learned from Short Term Market Interventions

During the crisis, a number of emergency and temporary market interventions have been introduced to mitigate the impact of high energy prices on consumers and companies. In the electricity market, the measure introduced at EU level is the so-called inframarginal cap, which softened the impact of high prices whilst requiring mandatory demand reduction.

The consultation seeks stakeholders' views on whether certain aspects of these emergency interventions could be turned into more structural features of the electricity market design, for example activated in future crisis situations, and if so, under what conditions.

Any such potential element of the reform would depend on the success of these measures in terms of limiting the impact of high electricity prices and on whether they can be introduced without harming the investment incentives required to achieve the decarbonisation of the power sector.

Better Consumer Empowerment and Protection

The energy crisis has exposed consumers across the internal market to higher energy costs – resulting in a real lowering of their standard of living. In some cases, customers face a choice between paying for their energy and buying other essential goods[1][2]. The crisis has also hit industry and service sectors increasing energy costs, particularly for energy intensive industry. This has given rise to cuts in production capacity, temporarily or permanent closures and lay-offs.

The Electricity Directive has not yet been fully implemented. Better implementation, and enforcement of consumer rights, would have helped mitigate the impact of the crisis for consumers. However, targeted improvements are also needed. This consultation covers different options for creating a buffer between consumers and short-term energy markets.

By giving consumers who want to actively participate in energy markets more opportunities do so, including by sharing energy to control their costs[3]. We can also better use digitalisation tools to make it easier for consumers with renewable heating or electromobility to manage their costs through avoiding the most expensive times of the day to use grid electricity. Even without being active on the market consumers need to be able to access longer term contracts for electricity, notably based on renewable power purchase agreements between suppliers and renewable producers. This will allow them to manage their costs and support new investments in renewable energy.

The crisis has also shown that often consumers pick up the costs when suppliers fail. This could be mitigated by requiring suppliers to be adequately hedged, combined with an effective Supplier of Last Resort Regime to ensure continuity of supply.

Finally, in cases of crisis it may be worthwhile enabling Member States to guarantee households and SMEs access to a minimum necessary amount of electricity at an affordable price, as was done in the Council Regulation (EU) 2022/1854 of 6 October 2022 on an emergency intervention to address high energy prices.

Stronger Protection against Market Manipulation

Regulation 1227/2011 on wholesale market integrity and transparency (REMIT) ensures that consumers and other market participants can have confidence in the integrity of electricity and natural gas markets, that prices reflect a fair and competitive interplay between supply and demand, and that no profits can be drawn from market abuse. In times of very high price volatility, external actors' interference, reduced supplies, and new trading behaviours, there is a risk that entities engage in illegal wholesale trading practices. There is therefore a need to ensure that the REMIT framework is up to date and robust. Further improvements would increase transparency, monitoring capacities and ensure more effective investigation and enforcement of cross-border cases in the EU to support new electricity market design.

Next Steps

The aim of the present public consultation is to give the opportunity to all stakeholders and other interested parties to provide feedback on a series of policy objectives to be pursued by the reform proposal and possible concrete legislative and non-legislative measures resulting from them.

The Commission intends to present a proposal for amendments to the electricity market design in March 2023. The replies to the present consultation should be provided by 13 February 2023 at the latest.

[1] See European Pillar of Social Rights, principle 20, and also the upcoming first EU Report on Access to Essential Services.

[2] See notably the Eurobarometer on "Fairness perceptions of the green transition", 10 October 2022

[3] Examples include allowing families to share energy among the different members located in different parts of the country; farmers installing renewable generation on one part of their farm and using the energy in their main buildings even if located a distance away; municipalities and housing associations including off-site energy as part of social housing, directly addressing energy poverty. Electricity production and consumption would need to take place at the same time which can be ensured by the use of smart metering.

About you

* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
-

- Dutch
- (•) English
- Estonian
- Finnish
- French
- German
- Greek
- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese
- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

* I am giving my contribution as

- Academic/research institution
- (•) Business association
- Company/business
- Consumer organisation
- EU citizen
- Environmental organisation
- Non-EU citizen
- Non-governmental organisation (NGO)
- Public authority
- Trade union
- Other

* First name

Lars

* Surname

Koch

* Email (this won't be published)

lko@greenpowerdenmark.dk

* Organisation name

255 character(s) maximum

Green Power Denmark

* Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

Transparency register number

255 character(s) maximum

Check if your organisation is on the transparency register. It's a voluntary database for organisations seeking to influence EU decision-making.

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* Country of origin

Please add your country of origin, or that of your organisation.

This list does not represent the official position of the European institutions with regard to the legal status or policy of the entities mentioned. It is a harmonisation of often divergent lists and practices.

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- Åland Islands
- Albania
- Algeria
- American Samoa
- Djibouti
- Dominica
- Dominican Republic
- Ecuador
- Egypt
- Libya
- Liechtenstein
- Lithuania
- Luxembourg
- Macau
- Saint Martin
- Saint Pierre and Miquelon
- Saint Vincent and the Grenadines
- Samoa
- San Marino

- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
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- Bolivia
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- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Falkland Islands
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- Fiji
- Finland
- France
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- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
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- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar/Burma
- Namibia
- Nauru
- Nepal
- Netherlands
- New Caledonia
- São Tomé and Príncipe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland
- Syria
- Taiwan
- Tajikistan

- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Brunei
- Bulgaria
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d’Ivoire
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue
- Norfolk Island
- Northern Mariana Islands
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Tanzania
- Thailand
- The Gambia
- Timor-Leste
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Türkiye
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela

Croatia	Kuwait	Romania	Vietnam
○ Cuba	○ Kyrgyzstan	○ Russia	○ Wallis and Futuna
○ Curaçao	○ Laos	○ Rwanda	○ Western Sahara
○ Cyprus	○ Latvia	○ Saint Barthélemy	○ Yemen
○ Czechia	○ Lebanon	○ Saint Helena Ascension and Tristan da Cunha	○ Zambia
○ Democratic Republic of the Congo	○ Lesotho	○ Saint Kitts and Nevis	○ Zimbabwe
◉ Denmark	○ Liberia	○ Saint Lucia	

To which category of stakeholder do you belong?

- ☐ a) National or local administration
- ☐ b) National regulator
- ☐ c) Transmission System Operator
- ☐ d) Distribution System Operator
- ☑ e) Market operator
- ☐ f) Energy company with generation assets
- ☐ g) Independent energy supplier with no generation assets
- ☐ h) Company conducting business in the energy sector no included in f) or g)
- ☑ i) Industrial consumer and associations
- ☐ j) Energy community
- ☐ k) Academia or think tank
- ☐ l) Citizen or association of citizens
- ☑ m) Non-governmental organisations
- ☐ n) Other

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Please provide feedback only on the questions that are relevant for you. Questions can be left blank.

Making Electricity Bills Independent of Short-Term Markets

Subtopic: Power Purchase Agreements (PPAs)

The conclusion of PPAs between electricity generators and final customers (including large industrial customers, SMEs and suppliers), is a way of supporting long-term investment by providing both parties with certainty regarding the price level over a longer time horizon (typically, 5 to 20 years) compared to other alternatives. In particular, PPAs contribute to reduce the uncertainty of final customers concerning electricity prices and their exposure to price variations, allowing to make consumers' bills independent from the fluctuation of fossil fuels prices. However, as PPAs are contracts signed over a long period of time, they bear considerable risks and costs for smaller market participants. Hence, their accessibility is currently limited to a few large final customers (e.g. energy intensive undertakings), creating a risk that access to decarbonised generation is limited to a subset of consumers.

Whilst the uptake of renewable PPAs is growing year-on-year, the market share of projects marketed under renewable power purchase contracts covers still only 15-20% of the annual deployment. Furthermore, renewable PPAs are limited to certain Member States and large undertakings, such as energy intensive undertakings.

To address these barriers, Member States can consider ways of supporting the conclusion of PPAs in line with State Aid rules. The Commission has described in detail the additional measures that could help the development of renewable PPAs in the Commission Staff Working document accompanying the REPowerEU Communication[1]. This could be achieved, inter alia, by pooling demand in order to give access to smaller final customers, by providing State guarantees in line with the State Aid Guarantee Notice [2] and by supporting the harmonization of contracts in order to aggregate a larger volume of demand and enable cross-border contracts.

[1] Commission Staff Working Document Guidance to Member States on good practices to speed up permit-granting procedures for renewable energy projects and on facilitating Power Purchase Agreements Accompanying the document Commission Recommendation on speeding up permit-granting procedures for renewable energy projects and facilitating Power Purchase Agreements SWD/2022/0149 final

[2] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52008XC0620%2802%29

Do you consider the use of PPAs as an efficient way to mitigate the impact of short-term markets on the price of electricity paid by the consumer, including industrial consumers?

- (●) Yes
- ( ) No

Please describe the barriers that currently prevent the conclusion of PPAs.

2000 character(s) maximum

PPAs is an efficient way to mitigate the impact of short term markets (STM) on the price of electricity. An improved framework for PPAs in the European power market should be seen as an important element in the long-term structural response to the supply crisis and mitigate the impact of STM of electricity paid by consumers. PPAs can ensure long-term stability and financing of renewables and make up a de-facto decoupling of electricity prices from natural gas prices.
The main barriers are:
• Regulatory Risk: PPAs require a stable regulatory framework to encourage investment and support long-term planning
• Administrative or Regulatory barriers to PPAs: the Electricity Regulation and the Renewable Energy Directive (RED) already address some regulatory and policy barriers. However, as these provisions are not consistently implemented across all Member States
• Absence of standardization of contractual terms, transparency in the market. The complexity of negotiating PPAs acts as a barrier which slows entry into the market by less sophisticated offtakers – a market driven framework for standardization of contracts will help lowerring the barriers to enter into a PPA for both producer and consumer.
• Offtakers' insufficient creditworthiness and banking guarantees: Making it easier for consumers and SME to obtain these guarantees is vital.
· Cross-border PPAs: the issuance of longer tenors for Long Term Transmission Rights (LTTRs) is missing.
· Difficulty finding off-take volumes beyond large corporatesLack of supply: Too few renewable projects are being realized which decreases the market volumes for PPAs
· Different needs and profiles: producers and consumers have different needs witch can complicate the conclusion of a PPA between a producer and a consumer.

Do you consider that the following measures would be effective in strengthening the roll-out of PPAs?

at most 6 choice(s)

- [x] a) Pooling demand in order to give access to smaller final customers
- [x] b) Providing insurance against risk(s) either market driven or through publicly supported guarantees schemes (please identify such risks)
- [ ] c) Promoting State-supported schemes that can be combined with PPAs
- [x] d) Supporting the standardisation of contracts
- [ ] e) Requiring suppliers to procure a predefined share of their consumers' energy through PPAs
- [ ] f) Facilitating cross-border PPAs

Do you have additional comments?

2000 character(s) maximum

(a) Yes. This measure would have the potential to increase demand for PPAs. However, it does not solve the problems regarding counterpart risk.
Offering long-term fixed PPAs will help decrease risks of volatile energy prices. This is already happening today and facilitated by suppliers, a key issue is that it remains voluntary, market based and driven by demand.
(b) Yes. Insurance against risks will help solve the counterpart risk problem and should be done without subsidies and regulation that distort the market.
(c) No. However, this may help remove some of the existing barriers for PPAs.
(d) Yes. The PPA market is today mainly structured around customized bilateral contracts. It is crucial for the further use of PPAs that market liquidity and transparency are increased, along with the development of standardized contracts. A standardization of PPA contracts may lead to a very significant reduction in transaction costs as most contracts today are individual and lacks standard terms. The standardization of contracts is already driven by the market and should continue to be so and not subject to regulatory engagement. It is important to keep in mind that PPAs are often used to solve a specific industry problem, therefore, freedom of contracting must be maintained. A stable regulatory framework to encourage investment and support long-term planning is essential.
(e) no. The suppliers must have freedom of choice on how to hedge their procurements. Setting requirements to use some specific instruments would limit the competition in retail markets and increase the costs. The uptake of PPAs should be increased through market driven demand by removing the previously mentioned barriers.
(f) Yes. This could help promoting PPAs. But the issuance of Long Term Transmission Rights is missing. Currently, LTTRs are limited to one year ahead. We therefore recommend allocating LTTR products with longer maturity.

In addition to the measures proposed in the question above, do you see other ways in which the use of PPA for new private investments can be strengthened via a revision of the current electricity market framework?

- (•) Yes
- ( ) No

If yes, please explain which rules should be revised and the reasons.

2000 character(s) maximum

Today the PPA market is mainly structured around bespoke bilateral contracts. It is crucial for the further use of PPAs that the markets will have increased liquidity, standardized contracts, and transparency, which requires the following initiatives;
• Definition of a common taxonomy for trading with renewables through PPAs
• Development of standard contracts, (in the same way as ISDA and EFET standard contracts)
• An organized trading platform for PPAs. An analysis of how end-consumers can have access to these products, that can stabilize energy prices over longer time frames.
• A review of the accounting principles for PPAs
These initiatives will give producers and consumers better opportunities to agree on contracts that benefit both parties. Furthermore, the market will become more resilient towards external shocks.

Do you see a possibility to provide stronger incentives to existing generators to enter into PPAs for a share of their capacity?

- (●) Yes
- ( ) No

If yes, under which conditions? What would be the benefits and challenges?

2000 character(s) maximum

Regulatory certainty is of utmost importance as PPAs require a stable regulatory framework to encourage investment and support long-term planning.
All business models should remain accessible and optional, including purely merchant. PPAs for existing assets should hence be accessible but developed to an extent that corresponds to the needs of market players. Introducing an incentive for existing assets to enter into a PPA – as opposed to other possibilities (like full commercialization on wholesale markets) – by means of some sort of constraints or penalties on the other commercialization options would be detrimental to the whole market.

Do you consider that stronger obligations on suppliers and/or large final customers, including the industrial ones, to hedge their portfolio using long term contracts can contribute to a better uptake of PPAs?

- ( ) Yes
- (●) No

Do you consider that increasing the uptake of PPAs would entail risks as regards

	Yes	No
(a) Liquidity in short-term markets	( )	(●)
(b) Level playing field between undertakings of different sizes	( )	(●)
(c) Level playing field between undertakings located in different Member States	( )	(●)
(d) Increased electricity generation based on fossil fuels	( )	(●)

(e) Increased costs for consumers	○	◉

Please explain

2000 character(s) maximum

5. Increased costs for consumers
We answered “no” under the assumption that the uptake of PPAs is achieved by removing barriers. If mandatory requirements are introduced on market participants to sell/buy PPAs then there will be serious negative side effects, including higher costs for consumers.

Subtopic: Forward Markets

Organised forward markets are a useful tool for suppliers and large consumers such as energy intensive undertakings to protect themselves against the risk of future increases in electricity prices and to decouple their energy bills from fluctuations of fossil fuel prices in the medium to long-term. However, it has been argued that liquidity in many organised forward markets across the EU is insufficient and that the time horizon for such hedging seems too short (usually up to one year). One possibility to increase the liquidity in forward markets would be to establish virtual trading hubs for forward contracts, as already exist in certain regions.

Such hubs would need to be complemented with liquid and accessible transmission rights to hedge the remaining risk between the hub and each zone.

While hedging up to approximately three years could be improved with better organization of the market, additional measures might be needed to incentivise forward hedging beyond this timeframe (see for example the section above on PPAs).

Do you consider forward hedging as an efficient way to mitigate exposure to short-term volatility for consumers and to support investment in new capacity?

- ◉ Yes
- ○ No

Do you consider that the liquidity in forward markets is currently sufficient to meet this objective?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

In the short term forward market (quarterly contracts) liquidity is sufficient, but beyond that the liquidity is insufficient and it has been decreasing for a number of years in the Nordics. Liquidity in especially longer-

term contracts is insufficient due to a low interest from consumers and the industry. Furthermore, collateral requirements to enter forward contracts is also responsible of the lack of liquidity.
Current liquidity of forward markets is therefore not sufficient for investments as it does not provide the long-term visibility needed by the CAPEX-intensive investments required for the energy transition.
Forward hedging can however be sufficient to mitigate part of the exposure to short-term volatility for consumers but for a limited time horizon. Increasing the financial strength (guarantees) of the demand side and long-term products and consumer demand could make especially the long-term forward market more liquid and giving them a more essential role in delivering more stable energy prices.

In your view, what prevents participants from entering into forward contracts?

2000 character(s) maximum

In general, the forward market liquidity has been negatively impacted by the lack of transmission capacity within Europe and the resulting smaller bidding zones. Consumers have so far had very few incentives to enter forward markets since short term procurement of energy at low prices have been possible in day-ahead and quarterly/yearly contracts. Longer term contracting has not been. relevant for the consumer as short term contracts has been cheaper.
Historically a high percentage of the wind production in Denmark has been hedged on forward contracts (round 50%). The current energy crisis in Europe has however increased the cost and risk of hedging very much for the producers, which has made it less favorable for the producers to hedge. This is to a large degree affected by the many different regulatory interventions in the energy markets.
Additionally, the current requirement for collaterals along with the lack of liquidity on forward markets are preventing some consumer from entering into forward contracts.

In your view, would requiring electricity suppliers to hedge for a share of their supply be beneficial for consumers and for retail competition?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

We find that mandating particular parts of operators in the free market generally leads to less competition and leaves less room for maneuver for retailers to match their offers to customer demand.

Do you consider that the creation of virtual hubs for forward contracts complemented with liquid transmission rights would improve liquidity in forward markets?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

We do not see how the introduction of virtual hubs will increase liquidity. Priority should be given to transmission built-out which also benefits society in other timeframes as resources can be more efficiently shared across Europe.

Do you have experience with the existing virtual hubs in the Nordic countries?

- (●) Yes
- ( ) No

In case you have experience with the existing virtual hubs in the Nordic countries, how do you rate this experience?

Do you have additional comments related to the existing virtual hubs in the Nordic countries?

2000 character(s) maximum

Historically, the introduction of the system price in the Nordics has been reasonable in light of the number of small bidding zones and the limited liquidity within them. However, with the grid constraints increasing, the model at some point collapsed and did not offer a good hedge for all market participants anymore.

In your view, what would be the possible ways of supporting the development of forward markets that could be implemented through changes of the electricity market framework?

3000 character(s) maximum

If the principles in the Nordpool and Nasdaq markets were implemented in the whole European area, we would have an efficient market for these products.
In line with the reasons for lower liquidity outlined in our earlier responses, we think the following needs to be addressed:
a) Ease collateral regulations in forward markets, by widening the types of non-cash collateral accepted, such as non-collateralized bank guarantees.
b) Create visibility on the regulatory frameworks and ensure that the market reform and instruments promoted within it do not further negatively impact forward market liquidity. For instance, the notion of mandatory hedging requirements (either forward market or PPA) risks obstructing the natural balance between sellers and buyers. Equally, mandatory contract for difference schemes for all new investments would deplete the forward market.
c) Address the barriers to investments in transmission capacity and review the rules on bidding zone reviews with a view to ensure that also broadening of bidding zones is within the scenarios investigated instead of just continuously proposing the split of zones
D) Better access to transmission rights

Subtopic: Contracts for Difference (CfDs)

Two-way CfDs and similar arrangements have been used in some Member States to support publicly financed investments in new inframarginal generation (in particular, renewables) to cater for situations where the necessary investments are not made on a market basis. Similarly to PPAs, they ensure a greater certainty to investors and consumers, and they cater for situations where the necessary investments require public support.

Public support for new inframarginal generation granted in the form of two-way CfDs could ensure that the beneficiaries receive a certain minimum level of remuneration for the electricity produced, while preventing disproportionate revenues. Typically, the beneficiary receives a guaranteed payment equal to the difference between a fixed 'strike' price and a reference price and the revenues above the strike price need to be returned to the CfD counterpart (i.e. Member State).

At the same time, two-way CfDs require the generation supported by the CfDs to pay back the difference between the market reference price and a maximum strike price whenever the reference price exceeds the strike price. If these paybacks are then channelled back to the consumers, suppliers or taxpayers, two-way CfDs also provide them with some protection against excessive prices and volatility, if they are passed on proportionally and objectively.

As it may be difficult for regulators to estimate the actual investment costs, the possibility to determine the remuneration of supported generators through a competitive bidding process is an important instrument to avoid long-lasting excessive costs.

Do you consider the use of two-way contracts for difference or similar arrangements as an efficient way to mitigate the impact of short-term markets on the price of electricity and to support investments in new capacity (where investments are not forthcoming on a market basis)?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

CfDs and similar arrangements are worth exploring as part of lowering the risk of investment in renewable energy. For these investments it is however crucial that such schemes are designed appropriately and should remain optional for developers such that merchant renewable energy projects are not undermined where the private sector has the ability to internalize and settle potential price risks via business-to-business PPAs and/or forward hedging. Thus, as long as CfDs remain voluntary and proper designed they can serve as a complementary instrument accounting for regional specificities, thereby they can play an important role in ensuring EU-wide appropriate investments in renewable energy production.
A sustainable and efficient long-term solution to mitigate the impact of short-term markets on the price of electricity includes a higher degree of hedging done by the end-consumers e.g. through long-term contracting. This would automatically limit consumers exposure to sudden high prices and limit the profits made by energy producers in such a scenario.

Should new publicly financed investments in inframarginal electricity generation be supported by way of two-way contracts for differences or similar arrangements, as a means to mitigate electricity price spikes of consumers while ensuring a minimum revenue?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

CfDs and similar arrangements are worth exploring as part of lowering the risk of investment in renewable energy. For these investments it is however crucial that such schemes are designed appropriately and should remain optional for developers such that merchant renewable energy projects are not undermined where the private sector has the ability to internalize and settle potential price risks via business-to-business PPAs and/or forward hedging. Thus, as long as CfDs remain voluntary they can serve as a complementary instrument accounting for regional specificities they can play an important role in ensuring EU-wide appropriate investments in renewable energy production.
A sustainable and efficient long-term solution to mitigate the impact of short-term markets on the price of electricity includes a higher degree of hedging done by the end-consumers e.g. through long-term contracting. This would automatically limit consumers exposure to sudden high prices and limit the profits made by energy producers in such a scenario.

What power generation technologies should be subject to two-way contracts for difference or similar arrangements?

2000 character(s) maximum

CfDs and similar arrangements should not be mandatory in the first place. CfDs are mainly worth exploring as part of lowering the risk of investment in renewable energy. CfDs are particularly relevant for intermittent

Why should those technologies be subject to two-way contracts for differences or similar arrangements?

2000 character(s) maximum

These projects should be subject to CfDs or similar arrangement due to high risk and externa factors that cannot be controlled for. These projects are an important part of the green transition but can for the mentioned reasons not always be realized on private terms alone

What technologies should be excluded and why?

2000 character(s) maximum

Mature technologies, that can secure financing on market-based terms, should be excluded from subsidy schemes such as CfDs, as it will only distort the market and delay investments. Additional in case of flexibility assets they do not seem to be necessarily fit for purpose, as they would take away the incentives to run when the value is the highest since the strike price would prevent capturing higher spreads. In general,

CfDs should only be explored for technologies and for renewable energy projects where there are no other private and market based investments possibilities due to high risk and external factors that cannot be controlled.

What are the main risks of requiring new publicly supported inframarginal capacity to be procured on the basis of two-way contracts for difference or similar arrangements, for example as regards of the impact in the short-term markets, competition between different technologies, or the development of market based PPAs?

2000 character(s) maximum

The main risks are that Member States are supporting the wrong technology. The choice of technology must be determined by the market. Furthermore the Member States are taking all the risks and costs, and the price of the energy transition away from fossil fuels to renewables energy sources will be higher than necessary.
Conventional CfDs have adverse liquidity effects on long-term (PPA) power markets, and distort the investment decision and short term markets, as there is an incentive to maximize revenue from the member state and not the market. For these reasons it is important that CfDs are design such that the short term market signals are maintained for owner of the contract.

What design principles could help mitigate the risks identified in your reply to the question above, in particular, in terms of procurement principles and pay out design? Should these principles depend on the technology procured?

2000 character(s) maximum

The aforementioned risks can be partially addressed through different means and tweaks of the CfD design, while most likely they cannot all be removed by one single solution and tradeoffs need to be made. It is therefore important to take a broader perspective and carry out research for CfD design, e.g. deemed generation or financial CfD design concepts should be further explored.
Allocation principles are equally important and should not be looked at in isolation from CfD design parameters.
Inflation indexation also needs to be taken into account. This in particular requires a technology-specific approach.

How can it be ensured that any costs or pay-out generated by two-way CfDs in high-price periods are channelled back to electricity consumers? Should a default approach apply, for example, should these revenues or costs be allocated to consumers proportionally to their electricity consumption?

2000 character(s) maximum

The most efficient use of revenues for Two-way CfD schemes is to use the money to accelerating the integration of renewables in the system will deliver consumers lasting benefits of the green transition.
Under the condition that revenues should be channeled directly to consumers, these should be given to the consumers that need them the most in the form of lump sum payment. It should be ensured that

responsiveness to price signals e.g. by shifting or reducing demand remains intact But a lasting an efficient solution that ensures a sustainable energy prices for consumers is to use the potential revenue to support further acceleration the energy transition and build out of renewables.

What should be the duration of a two-way CfD for new generation and why? Should this differ depending on the technology type?

2000 character(s) maximum

As CfDs should only be used in very specific cases, and they should not be mandatory. In these cases where using a two-way CfDs are the best/only investment possibility the duration of the CfD should be left to the member state to decide.

Should generation be free to earn full market revenues after the CfD expires, or should new generation be subject to a lifetime pay-out obligation?

2000 character(s) maximum

The generation should be free to earn market revenue after the CfD expires. Additionally, a buyout option could be considered allowing the generator to leave the CfD prior to its expiration date.
A life-time obligation or even mandatory CfDs would seriously reduce investment in new renewables.

Without prejudice to Article 6 of Directive (EU)2018/2001[1], should it be possible for Member States to impose two-way CfDs by regulatory means on existing generation capacity?

[1]

Article 6 (1): Without prejudice to adaptations necessary to comply with Articles 107 and 108 TFEU, Member States shall ensure that the level of, and the conditions attached to, the support granted to renewable energy projects are not revised in a way that negatively affects the rights conferred thereunder and undermines the economic viability of projects that already benefit from support.

Article 6(2): Member States may adjust the level of support in accordance with objective criteria, provided that such criteria are established in the original design of the support scheme.

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

It should not be possible for Member States to impose two-way CfDs on either existing or new generation capacity. This would be considered as an expropriate act and would be very harmful for future investments. The state has an important role in securing a stable regulatory environment that encourages investments in renewable energy. The measures listed in Q9 and Q10 would unfortunately result in the exact opposite and be extremely harmful towards investor appetite.
CfDs should under no circumstances be imposed on existing generation. In terms of compensating

vulnerable consumers in the short term other measure then changing the electricity market design should be applied. Moreover, accelerating the integration of renewable energy by removing barriers and creating a strong investment environment will deliver long term and lasting benefits to consumers and society.

How would you rate the following potential risks as regards the imposition of regulated CfDs on existing generation capacity?

	Negligible risks	Low risks	Medium risks	High risks	Very high risks
Legitimate expectations/legal risks	○	○	○	○	◉
Ability of national regulators/governments to accurately define the level of the price levels envisaged in these contracts	○	○	○	◉	○
Locking in existing capacity at excessively high price levels determined by the current crisis situation	○	○	○	◉	○
Impact on the efficient short-term dispatch	○	○	○	◉	○

How would you address those potential risks as regards the imposition of contracts for difference on existing generation capacity?

2000 character(s) maximum

a. legitimate expectations/legal risks;
Very high. It must be considered as an expropriate act with compensation to the owners of existing capacity. It would result in many legal claims that will appear in courts and be very costly for member states.
(b) ability of national regulators/governments to accurately define the level of the price levels envisaged in these contracts;
High. Investment uncertainty on regulation make such considerations counterproductive.
(c) locking in existing capacity at excessively high price levels determined by the current crisis situation;
High. It is unclear how the price level should be determined, but this is always a risk when power prices are hedged/fixed for a long period.
(d) impact on the efficient short-term dispatch.
High. Imposing CfDs on existing generation can cause a lack of power in certain hours, and therefore risk disrupting the efficiency of the short-term dispatch. Furthermore, assets in the CfDs are not reacting to the same price signals as merchant assets. This may lead to higher costs associated with balancing energy.

Would it be enough for existing generation to be subject only to a simple revenue ceiling instead of a revenue guarantee?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

A revenue ceiling would be harmful to investor confidence. The current situation has already paused many investment decisions across Europe, and many investors are looking outside of Europe for their next venture.

What are the relative merits of PPAs, CfDs and forward hedging to mitigate exposure to short-term volatility for consumers, to support investment in new capacity and to allow customers to access electricity from renewable energy at a price reflecting long run cost?

2000 character(s) maximum

The best tool to reduce short-term volatility for the consumers, is for consumers to buy a percentage of their consumption by forward hedging. Additionally, voluntary PPAs and forward markets can provide large scale market based solutions, and should thus be preferred for wind, solar and batteries. For smaller consumption (private consumers and SME) making access to the required bank guarantees easier can help solve the problem with the counterpart risk.

Subtopic: Accelerating the deployment of renewables

The shortage in gas and electricity supply as well as the relatively inelastic energy demand have led to significant increases in prices and volatility of gas and electricity prices in the EU. As stated above, a faster deployment of renewables constitutes the most sustainable way of addressing the current energy crisis and of structurally reducing the demand for fossil fuels for electricity generation and for direct consumption through electrification and energy system integration. Thanks to their low operational costs, renewables can positively impact electricity prices across the EU and reduce direct consumption of fossil fuels.

Through the REPowerEU plan, the European Commission has put forward a range of initiatives to support the accelerated deployment of renewable energy and to advance energy system integration. These include the proposal to increase the renewable energy target by 2030 to 45% in the Renewable Energy Directive, legislative changes to accelerate and simplify permitting for renewable energy projects or the obligation to install solar energy in buildings.

These efforts should be accompanied by appropriate regulatory and administrative action at national level and by the implementation and enforcement of the current EU legislation.

Within the framework of the Electricity Market legislation, accelerating the deployment and facilitating the uptake of renewables is one of the guiding principles of the Clean Energy Package and of this consultation paper. For example, a transmission access guarantee could be envisaged to secure market access for offshore renewable energy assets interconnected via hybrid projects, where the relevant TSO(s) would compensate the renewable operator for any hours in which the actions of the TSO led to not enough transmission capacity being accessible to the offshore wind farm to offer their export capabilities to the electricity markets[1].

Also, removing the barriers for the uptake of renewable PPAs or generalising two-way CfDs, enhancing consumer empowerment and protection, and increasing demand response, flexibility and storage should contribute to the accelerated deployment of renewables.

[1] See the recommendations of the Study “Support on the use of congestion revenues for Offshore Renewable Energy Projects connected to more than one market” https://energy.ec.europa.eu/system/files/2022-09/Congestion%20offshore%20BZ.ENGIE%20Impact.FinalReport_topublish.pdf

Do you consider that a transmission access guarantee could be appropriate to support offshore renewables?

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

The TAG model (Transmission Access Guarantee) as proposed by the European Commission is a necessary tool to address the additional risk elements that arise particularly for offshore wind located in a separate bidding zone. In particular the so-called volume risk of facing reduced grid availability poses a significant risk, and offshore generators have no control over the allocation of interconnector availability and are likely to suffer curtailment and price formation related risks which would impede investment in such assets.

Do you see any other short-term measures to accelerate the deployment of renewables?

	Yes	No
At national regulatory or administrative level	(●)	( )
In the implementation of the current EU legislation, including by developing network codes and guidelines	( )	(●)
Via changes to the current electricity market design	( )	(●)
Other	( )	( )

If yes, please specify

2000 character(s) maximum

On the TSO grid the greatest challenge in the short and medium term that prevents the acceleration of a massive renewable build out in Europe is the lack of sufficient grid. Shortening the permitting process and accelerating grid build out will speed up the deployment of renewables. Moreover, electricity market integration should be pursued, especially by making a maximum amount of cross-border interconnection capacity available to the market.
On the DSO side the greatest challenge preventing the acceleration of a massive renewable build out in Europe is the regulation of DSO’s that hinders massive investment in grid infrastructure. Shortening the permitting process and accelerating grid build out will speed up the deployment of renewables.
at national regulatory or administrative level,
More than 50 % of the renewable projects in Denmark are postponed or stopped in the complaints board or

ultimately in the courts. There is a need to speed up the process of handling complaints, and to balance the interests between protecting the EU habitats and increasing the renewables. Many projects are stopped in the complaints board due to minor conflicts (formal details) regarding the EU habitats legislation.
Furthermore, reforming the regulation such that timely grid investments are incentivized rather than punished, would support the massive build-out of the grid that is going to be a prerequisite for the electrification of Europe in the coming decades.
(b) in the implementation of the current EU legislation, including by developing
network codes and guidelines,
The main problem is not technical legislation but permitting, habitats, access to areas and lack of grid.
c) EU needs stronger interconnectors to utilize more renewables, and the EU legislation must support that these interconnectors are used as much as technical possible. Changing the current market design will only hinder deployment of renewables.

Do you have additional comments?

2000 character(s) maximum

How should the necessary investments in network infrastructure be ensured? Are changes to the current network tariffs or other regulatory instruments necessary to further ensure that the grid expansion required will take place?

4000 character(s) maximum

Grid capacity around Europe is a scarce resource – and ever so with the electrification needed to reach net-zero. With build-out of variable renewables production and large, flexible consumption units, the grid becomes even more strained, and hence, it should be used as efficiently as possible to the benefit of society. New renewable generation and large, flexible consumption units both have the possibility to act flexibly towards the grid and thereby limit the need for grid build out. This includes flexible behaviour regarding geographical location of assets and timing of use of grid.
As an example, if renewable generation and electrolysers are co-located before the grid, the electrolyser can act as a buffer between the generation and the grid and limit the needed grid connection capacity and hence also provide the TSO security for a limited need for grid capacity build-out.
Incentives for such behaviour and decisions on location of the electrolyser are needed to realise the potential. And it's needed now, as many of the projects are being developed in the coming years. Cost-reflective tariffs and innovative grid products are efficient tools to provide such incentives to grid users to use the grid efficiently. Examples are cost-reflective tariffs that provide both locational price signals and incentives to optimise the exchange capacity. Another example is an interruptability tariff product for both consumption and generation. These all incentivize new consumption and generation to connect to the grid in ways that minimize the costs incurred on the grid while the owners of that new generation and consumption get a share of the savings.
The current Danish regulatory framework uses reduction of the DSO revenue cap (tariff) via general and individual efficiency requirements based on historical parameter values. The mechanism is de facto slowing down the investment in network assets, because DSO's are punished for investing in grid assets that they expect to be appropriate for future demand. The mechanisms in the regulation are designed in a period where demand was near constant from year to year. However, the coming years and decades the demand will increase rapidly, and the need for network investments with it.
To facilitate the necessary investments, which is a prerequisite for the green transition and European energy independence, the regulation and the additional efficiency requirements must be rethought. We need a

regulation that encourages massive and rapid investments. We are in a situation where too few and too slow investments in network assets are way worse than the alternative; that we invest a bit too early, and hence the utilization of the grid is not at a maximum for a short period of time.
Future regulation must take into consideration the urgency of the green transition.

Subtopic: Limiting revenues of inframarginal generators

During the current energy crisis, temporary emergency measures have been put in place under Council Regulation 2022/1854 of 6 October 2022 on an emergency intervention to address high energy prices. One of these measures is the so-called inframarginal revenue cap which limits the realised revenues of inframarginal generators to a maximum of 180 Euros per MWh. The aim of introducing this inframarginal cap was to limit the impact of the natural gas prices on the revenues of all inframarginal generators (new and existing) and to generate revenues allowing Member States to mitigate the impact of high electricity prices on consumers.

The question to be addressed in the context of the reform of the electricity market rules is whether, in addition to relying on long-term pricing mechanisms such as forward markets, CfDs and PPAs, such revenue limitations for inframarginal generators should be maintained.

Do you consider that some form of revenue limitation of inframarginal generators should be maintained?

- ○ Yes
- ◉ No

How do you rate a possible prolongation of the inframarginal revenue cap according to the following criteria:

(a) the effectiveness of the measure in terms of mitigating electricity price impacts for consumers

0

(b) its impact on decarbonisation

0

(c) security of supply

0

(d) investment signals

0

(e) legitimate expectations/legal risks

0

(f) fossil fuel consumption

0

(g) cross border trade intra and extra EU

0

(h) distortion of competition in the markets

0

(i) implementation challenges

0

Do you have additional comments?

3000 character(s) maximum

(i) implementation challenges.
The temporary revenue cap is still not implemented in many members. In Denmark the Danish implementation was presented in late January, meaning that many of the details of the regulation is still unclear in Denmark. In Sweden they have postponed the implementation until March. The many examples of how member states across the EU are struggling with the implementation, along with the fact that the Commission has not published an implementation guide to assist member states demonstrate the many ongoing implementation challenges member states are currently facing. Furthermore, the revenue cap requires much administration both for the producers and for tax authorities.

Should the modalities of such revenue limitation be open to Member States or be introduced in a uniform manner across the EU?

- ○ Member States
- ◉ EU

Do you have additional comments?

2000 character(s) maximum

NO. The existing revenue cap should remain a temporary measure and should not be continued/maintained. Green Power Denmark acknowledges the political need to compensate vulnerable unhedged industries and households in a period of unprecedented electricity prices caused by Russia's invasion of Ukraine. However, the current implementation of the revenue cap leads to a patchwork of individual implementations with different price levels, revenue calculation methods and responsibilities. This results in complex setups across MS that will lead to significant administrative costs (registering all new hedges related to DE

production being one example).
Further, capping revenue at a certain price, will limit the power producers' ability to serve as a counterpart for hedging by power consumers. This is unfortunate, since consumers exposure to daily power prices is what caused the need for political action to begin with.
The sustainable long-term solution includes a higher degree of hedging by end consumers e.g. through long term contracting. This would automatically limit consumers exposure to sudden high prices and limit the profits made by energy producers in such a scenario.

How can it be ensured that any revenues from such limitations on inframarginal revenues are channelled back to electricity consumers? Should a default approach apply, for example, should these revenues be allocated to consumers proportionally to their electricity consumption?

3000 character(s) maximum

This is unsustainable and will not ensure that consumers will have long and lasting benefits from the green energy transition. Instead, the Commission should focus on maintain a free and well-functioning market that delivers the needed long-term price signals for investment, and thus have an essential role in facilitating the accelerated deployment of renewables. Additionally, it is important to accelerate grid development and providing fast, fair and reliable grid connection terms.
Moreover, improving access for consumers and SME to long-term pricing products and ensuring the counterpart risk by making access to the required large bank guarantees easier.

Alternatives to Gas to Keep the Electricity System in Balance

Short-term markets enable trading electricity close to the time of delivery, covering day-ahead, intraday and balancing timeframes. Well-functioning short-term electricity markets guarantee that the different assets are used in the most efficient manner – this is key to deliver the lowest possible electricity prices to consumers. Short-term markets should therefore deliver relevant price signals reflecting locational, time-related and scarcity aspects: this will ensure the adequate reaction of generation and demand. Even if an increasing share of generation were covered by long term contracts such as PPAs or CfDs (cf. the sections above), the short-term markets would remain key to ensure efficient dispatch. The short-term markets also ensure efficient exchanges of electricity across borders.

Well-functioning short-term markets require healthy competition between market participants so that they are incentivised to bid at their true cost and regulators have the necessary tools to detect any kind of abusive or manipulative behaviour. Demand response, storage and other sources of flexibility must be put in a situation where they can compete effectively so that the role of natural gas in the short-term market to provide flexibility is progressively reduced, which will bring multiple benefits including lower electricity prices for consumers. To ensure this, targeted changes to the functioning of short-term markets could be envisaged, which could include:

Incentivising the development of flexibility assets

The Commission together with ACER has started the work on new rules to further support the development of demand response, including rules on aggregation, energy storage and demand curtailment, and address remaining regulatory barriers.

Adapt incentives in the System operators tariff design: The Electricity Regulation and Directive already give the possibility for system operators to procure flexibility services including demand response. However, in most Member States, the current regulatory framework treats capital expenditures (CAPEX) of system operators different from operational expenditures (OPEX), resulting in a bias in detriment of investments by system operators concerning the operation of their network. An alternative to this approach is a regulatory framework based on overall total expenditure (TOTEX), including capital expenditures and operational expenditures, which would allow the system operators to choose between operational expenditures and capital expenditures, or an efficient mix of both, to operate their system efficiently without bias for a certain type of expenditure. This would incentivise system operators to procure further flexibility services, and in particular demand response, which should be a key enabler for greater renewable integration.

Using sub-meter data for settlement and observability: The deployment of smart meters as envisaged in the Electricity Directive is delayed in several Member States. In addition, smart meters do not always provide the level of granularity required for demand response and energy storage. In these situations, it should thus be possible for system operators to use sub-meter data (incl. from private sub-meters) for settlement and observability processes of demand response and energy storage, to facilitate active participation in electricity markets (see also section *"Adapting metering to facilitate demand response from flexible appliances"* in the section on **"Better consumer empowerment and protection"**). The use of sub-meter data should be accompanied by requirements for the sub-meter data validation process to check and ensure the quality of the sub-meter data. Access to dynamic data of electricity consumed (and injected back to the grid) notably from renewable energy sources helps increasing awareness amongst the consumers and allows shifting demand towards renewable electricity.

Developing new products to foster demand reduction and shift energy at peak times: To foster demand reduction and energy shifting (through demand response, storage and other flexibility solutions) at peak times, a peak shaving product could be defined and considered as an ancillary service that could be bought by system operators. Such a product could be auctioned a few weeks/months ahead (with a capacity payment) and activated at peak load (with an energy payment), considering renewables generation, therefore contributing to phasing out gas plants from the merit order, and contributing to lowering the price. Demand reduced could also be shifted to another point in time, outside of peak times. This would incentivize flexibility when fossil fuel capacity is needed the most in the system. It would be important to ensure such a product is cost effective if implemented over the long term.

Coordinating demand response in periods of crisis: In periods of crisis, it would also be possible to combine the limitations of inframarginal revenues described in the section above with market-based coordinated demand response (reduction and/or shifting) in times of peak prices or peak load. The aim would be to reduce the market clearing price and fossil fuel consumption.

Improving the efficiency of intraday markets

Shifting the cross-border intraday gate closure time closer to real time: Intraday trade is a key tool to integrate renewable energy sources and balance their variability with flexibility sources up to real time. Wind and solar producers see their forecasts strongly improving close to delivery, and it should be possible to trade shortages and surpluses as close as possible to real time. Setting the cross-border intraday gate

closure time closer to real time therefore appears as a meaningful improvement, in combination with maximising the cross-border trade capacity.

Mandating the sharing of the liquidity at all timeframes until the time of delivery: EU day-ahead and intraday electricity markets are geographically coupled, meaning that trades can take place anywhere across Europe if the grid cross-border capabilities are sufficient. This considerably increases the liquidity and therefore the efficiency of the markets. The Commission considers extending these benefits also to intra-border trade between different market operators. This would support competition development and facilitate market participants to balance their positions - a key aspect for integrating further variable renewables.

Do you consider the short-term markets are functioning well in terms of:

	Yes	No
(a) accurately reflecting underlying supply/demand fundamentals	◉	○
(b) encompassing sufficiently liquidity	◉	○
(c) ensuring a level playing field	◉	○
(d) efficient dispatch of generation assets	◉	○
(e) minimising costs for consumers	◉	○
(f) efficiently allocating electricity cross-border	◉	○

Do you see alternatives to marginal pricing as regards the functioning of short-term markets in terms of ensuring efficient dispatch and as regards the determination of cross border flows?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

No the marginal pricing has for decades and still do ensure the most efficient dispatch and allocation of cross border resources. However, there are elements such as structural bottlenecks that effect the allocation of cross-border capacity, but this is already being addressed in the ongoing bidding zone review and should therefore not be a part of a market reform.

How can the EU emission trading system and carbon pricing incentivize the development of low carbon flexibility and storage?

3000 character(s) maximum

The aim of the EU ETS is to drive CO2 emission reductions in a cost-efficient manner. The EU ETS provides a uniform, investable carbon price signal across the energy sector. When combined with wholesale market price signals, including ancillary services procurement by TSOs, this gives an appropriate incentive to develop the low carbon flexibility options that best suits the systems needs. It thus benefits all low-carbon

(and especially fossil-free) assets, investments and measure.
However, it could be investigated if the current procedures of given carbon certificates for free is the most efficient solution is ensure CO2 emission reductions.

Do you consider that the cross-border intraday gate closure time should be moved closer to real time (e.g. 15 minutes before real time)?

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

Yes, this would improve the market possibilities for especially fluctuating renewables. The future energy system will be dominated by variable RES. The intraday market ensures that market participants can adapt schedules according to the latest available information before delivery, which consequently minimises the imbalance cost risks.

Do you consider that market operators should share their liquidity also for local markets that close after the cross-border intraday market?

- (●) Yes
- ( ) No

What would be the advantages and drawbacks of sharing liquidity in local markets after the closure of the cross-border intraday market?

2000 character(s) maximum

this would improve the market possibilities for especially fluctuating renewables. The future energy system will be dominated by variable RES. The intraday market ensures that market participants can adapt schedules according to the latest available information before delivery, which consequently minimises the imbalance cost risks.

The market design must support the liquidity, and this include sharing as much as possible.

Would a mandatory participation in the day-ahead market (notably for generation under CfDs and/or PPA's) be an improvement compared to the current situation?

- ( ) Yes
- (●) No

What would be the advantages and drawbacks of such an approach?

2000 character(s) maximum

No. We do not see the need to implement compulsory rules for non-regulated physical assets or to impose unnecessary burden to trade or limiting opportunities to trade either bilaterally or via organized markets. There is a natural incentive to efficiently trade in day-ahead for non-regulated physical assets either under

OTC arrangements or directly exposed to spot. They effectively use short-term markets to honor commitments of physical delivery in the most efficient way while guaranteeing variable costs of physical assets are recovered. Furthermore, this behavior allows flexibility disclosure of all kinds of assets.
Moreover, the REMIT regulation already ensures that market prices reflect the “competitive and fair interplay between supply and demand” and are not manipulated (e.g. through capacity withholding practices).
Finally, we consider that the day-ahead market currently works well and should not be changed. If the question of bidding behaviour of assets subjected to support schemes could be relevant, we believe that the design of these scheme should be adapted to provide the right incentives for optimal dispatch rather than implementing this compulsory rule.

What would be the advantages and drawbacks of having further locational and technology-based information in the bidding in the market (for example through information on the composition of portfolio, technology-portfolio bidding or unit-based bidding)?

2000 character(s) maximum

There are no advantages. Imposing additional constraints on bids (based on information such as fuel type, location within bidding zones, technology, portfolio mix) will increase costs from higher complexity of bids and needs for significant IT investments for market participants, and reduce economic efficiency in the market by limiting the markets possibility to ensure the most efficient dispatch, e.g. through portfolio optimizing.

What further aspects of the market design could enhance the development of flexibility assets such as demand response and energy storage?

2000 character(s) maximum

The current market design supports investments inflexibility assets and encourages the producers to invest in batteries etc. Imposing mandatory CfDs on producers would remove this incentives to make such investments.
Additionally, facilitating rapid grid expansions and fair terms for batteries – especially products that require less than 4 hours electricity system flexibility – would help create the framework needed in order for batteries to compete with gas in the short-term markets. This would facilitate more new storage forms that will be able to compete with gas on daily, weekly, monthly basis and possible also seasonal level if development is supported with grid access etc.

In particular, do you think that a stronger role of OPEX in the system operator’s remuneration will incentivize the use of demand response, energy storage and other flexibility assets?

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

Yes, on DSO level there is a need for changing current regulation, while we on TSO level do not see the need for such changes.

The imbalance of CAPEX vs. OPEX in the current regulation is a major roadblock for flexibility on DSO level. Efficient deployment of flexibility services requires appropriate regulatory incentives. Traditional regulatory incentives focus on grid assets. They should be adjusted to induce the most cost-effective solution be it CAPEX or OPEX, for example flexibility services.
It is important to note, that activating flexibility on the TSO and DSO level are two very different things. On the transmission level a systems and balance market already exist. We therefore do not see the same need for changing the current tariff system on TSO level. On the DSO level, the flexibility market (in Denmark) is still at an early stage. One of the inherent problems in a DSO flexibility market is the lack of possible participants, because the flexibility is requested on a lower voltage-level. Hence, tariffs that incentivize better utilization of the grid are important tools on the DSO level.

Do you consider that enabling the use of sub-meter data, including private sub-meter data, for settlement/billing and observability of demand response and energy storage can support the development of demand response and energy storage?

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

We believe that the revision of the Electricity Directive must clearly state that main meters should remain the central point of measurement and that sub-meter use should remain at the discretion of the Member States. Certified sub meters have the potential to be consumer friendly and help enhance new services such as demand response. However, their means of use and the accuracy of the data coming from the submeters should be carefully regulated. If certified submeters are used, it should be with the consent of the system operator, and the submeter should be interoperable, meaning the data produced by the submeter can be read by more parties than just the manufacturer (specifically that SOs be able to read the data without having to invest in additional, expensive IT systems.) Furthermore, we are concerned about potential technological locking-in with the use of some private submeters. Finally, we believe that the details on the role and use of certified submeters should rather be set in the future network code on Demand Response which is currently under drafting phase.

Do you consider appropriate to enable a product to foster demand reduction and shift energy at peak times as an ancillary service, aiming at lowering fuel consumption and reducing the prices?

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

Yes, an excellent product, if supplied by the energy suppliers based on market demand and not regulation. The appropriateness of network products to foster demand reduction and flexibility depends on the product in terms of simplicity and effectiveness. Examples of appropriate network products are TOU tariffs, capacity based tariffs, and flexible connection agreements, which have the common feature of aligning cost reflectiveness with flexibility.

Do you consider that some form of demand response requirements that would apply in periods of crisis should be introduced into the Electricity Regulation?

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

Yes. In an extreme situation, a plan to adjust demand in case of supply shocks is needed. To create a safeguard, the demand reduction measures from the emergency regulation should be put into EU legislation and accompanied with a trigger level for when to activate the demand reduction measures. The need for such safeguard could decrease with increasing consumer responsiveness to prices.

Do you see any further measure that could be implemented in the shorter term to incentivize the use of demand response, energy storage and other flexibility assets?

- (●) Yes
- ( ) No

If so, what would that be?

2000 character(s) maximum

Transmission fees on the consumer side could be variable and higher at high peak hours to further encourage the consumers to adapt to the price signals. Improve and speed up the process regarding grid access for all resources, including flexibility assets.

Do you have additional comments?

2000 character(s) maximum

Do you consider the current setup for capacity mechanisms adequate to respond to the investment needs as regards firm capacity, in particular to better support the uptake of storage and demand side response?

- ( ) Yes
- (●) No

If not, what changes would you consider necessary in the market design to ensure the necessary investments to complement rising shares of renewables and to better align with the decarbonisation targets?

4000 character(s) maximum

Depends. Generally, we believe that current EU framework is sufficient, but acknowledge that in some countries there may be a temporary need to deploy capacity renumeration mechanisms (CRM) to ensure investments in firm capacity. In this case CRM should be transitory and applied as set out in Regulation (EU) 2019/943, articles 21 and 22. Cross-border resources and portfolios including storage, renewables and demand response, should be able to participate and compete on equal terms regarding their ability to ensure security of supply.
Moreover, in terms of increasing the ability of renewables to deliver flexibility for the system it would beneficial to move market timeframes closer to real time.
A permanent introduction/reduction of the wholesale price cap will have a negative impact on capacity in the market from both production and demand and will ultimately result in the need for permanent market-wide capacity mechanisms at the expense of the energy-only market.

Do you have additional comments?

4000 character(s) maximum

Do you see a benefit in a long-term shift of the European electricity market to more granular locational pricing?

- ○ Yes
- ◉ No

Do you have additional comments?

3000 character(s) maximum

Taking about modal pricing seems very premature, as the current ongoing bidding zone review has been delayed for years given the strong resistance against it. Given these reasons it is too early to talk further about a higher level of granularity within Europe and that resources are best used on finishing the ongoing bidding zone review.

Better Consumer Empowerment and Protection

Union legislation recognizes that adequate heating, cooling and lighting, and energy to power appliances are essential services. The European Pillar of Social Rights includes energy among the essential services which everyone is entitled to access.

Union legislation also aims to deliver competitive and fair retail markets, as well as possibilities to reduce energy costs by investing in energy efficiency or in renewable generation thereby putting consumers at the heart of the energy system. The energy crisis has shown the importance of delivering on this ambition but also weaknesses in the existing system. For that reason, there is scope to further reinforce the Electricity Directive to deliver the needed consumer empowerment and protection, and avoid that consumers are powerless in the face of short-term energy market movements.

Increasing possibilities for collective self-consumption and electricity sharing

Digitalisation – particularly when applied to metering and billing – facilitates energy sharing and collective self-consumption. Collective self-consumption means customers are able to invest in offsite generation and become “prosumers” reducing their bills just as if the renewable energy production installation were installed on their own roof. Consumers can then avoid buying gas produced electricity which leads to real decoupling.

The practical uses are potentially very significant – for example, families can share energy among the different members located in different parts of the country and farmers can install renewable generation on one part of their farm and use the energy in their main buildings even if located a distance away. Another clear use case is municipalities and housing associations can include off-site energy as part of social housing, directly addressing energy poverty.

Member States such as Belgium[1], Austria, Lithuania[2] Luxembourg, Portugal and others[3] have shown that it is possible to implement this model in practice quickly and at reasonable cost for consumers to develop energy sharing and collective self-consumption.

Customers should be in a position to deduct the production of offsite renewable generation facilities they own, rent, share or lease from their metered consumption and billed energy. Specific provisions could allow energy poor and vulnerable customers to be given access to this shared energy, for example produced within municipalities, or by investments of local governments.

Energy sharing should be treated in a non-discriminatory way compared to normal suppliers and producers. This means costs for other consumers are not unduly increased. Production and consumption has to happen at the same market time unit. Energy sharing be possible where there are no transmission constraints for wholesale trade – that is within price zones.

Adapting metering to facilitate demand response from flexible appliances

The roll out and uptake of demand response has been slower than desired. One of the reasons for this has been the very complex relationships between suppliers and aggregators. The greatest demand response possibilities often come from individual appliances – in particular behind-the-meter storage, heat pumps and electric vehicles. Enabling dedicated suppliers and aggregators to offer contracts covering just these appliances could help both speed the roll out of these appliances and increase the amount of demand response in the system. The Electricity Directive already provides that customers are entitled to more than one supplier, but this has been seen to require a separate connection point increasing costs for customers significantly.

Therefore, there is a case for adapting the current provisions of the Electricity Directive to clarify that customers who wish to have the right to have more than one meter (i.e. a sub-meter) installed in their premises and for such sub-metered consumption to be separately billed and deducted from the main metering and billing.

Better choice of contracts for consumers

In many Member States as the crisis unfolded, the availability and diversity of contracts became more limited, making it increasingly difficult for customers to obtain fixed price contracts in many Member States. This was also often insufficiently clear to customers who believed that they had entered into fixed price

contracts, alongside a wider lack of understanding of consumer rights.

There are also few “hybrid” or “block” contracts available. Such contracts combine elements of fixed price and dynamic/variable prices giving consumers certainty for a minimum volume of consumption but allowing prices to vary above that amount.

Customers with variable price contracts can find budgeting more difficult, particularly consumers on low incomes or vulnerable consumers. The effect of such contracts is that the cost of managing the risk of wholesale price increases is faced exclusively by customers and not by suppliers. On the other hand, variable prices – at least for the energy where the customer is effectively able to control consumption - can incentivise a more efficient use of energy.

While suppliers above a certain size are obliged to offer dynamic price contracts, which were less in demand during the crisis, the legislation is silent on fixed price contracts. This should be rebalanced to allow consumers a choice between flexible or fixed price contracts. Fixed price contracts could still be based on time of use to maintain incentives to reduce demand at peak hours. Suppliers would remain free to determine the price themselves.

Suppliers often argue that it is difficult to offer attractive fixed price offers for two reasons - firstly if they do not have access to longer term markets which allow them to hedge their risks. These issues are addressed in the sections on forward markets above. Secondly, suppliers argue that it is difficult to offer fixed price fixed term contracts because consumers are allowed to switch supplier (i.e. leave the fixed price fixed term contract) - leaving the supplier with additional costs. Currently, termination fees for fixed price fixed term contracts are allowed – but only if they are proportionate and if they reflect the direct economic loss to the supplier. Without abandoning these principles, it could be considered allowing regulators or another body to set indicative fees which would be presumed to comply with these obligations.

Strengthening consumer protection

A) Protecting customers from supplier failure

Increased supplier failure during the crisis, generally because of a lack of hedging, has been observed in several Member States. This has often resulted in all consumers facing higher bills because of socialisation of some of the failed suppliers’ costs.[4] Customers of the failed suppliers are also faced with unexpected costs. Obliging suppliers to trade in a prudential way may involve some additional costs, but would reduce the risks that individual consumers face and also avoid socialisation of the costs of suppliers with poor business models. This is separate from, but complementary to, prudential rules applicable to energy companies on financial markets where the Commission has also taken action. At the same time, we recognise such obligations need to take account of the difficulties smaller suppliers face in hedging, particularly in smaller Member States (see also section on “*Forward Markets*” above).

All Member States have implemented a system of supplier of last resort, either de jure or de facto. However, the effectiveness of these systems varies and EU framework is very vague without clarifying the roles and responsibilities of the appointed supplier and the rights of consumers transferred to the supplier of last resort[5].

B) Access to necessary electricity at an affordable price during crises

The Electricity Directive includes specific provisions for energy poor and vulnerable customers, which are part of a broader policy framework to protect such consumers and help them overcome energy poverty.[6] However, the crisis has shown that affordability of energy can be a major issue not only for these groups, but also for wider sections of population. Member States can apply price regulation for energy poor and vulnerable households. Council Regulation (EU) 2022/1854 on an emergency intervention to address high energy prices allows for below cost regulated prices for all households and for SMEs on a temporary basis and subject to clear condition. In particular, such measures can only cover a limited amount of consumption and must retain an incentive for demand reduction. One of the lessons of the crisis is that the objective of reducing energy costs for consumer should not come at the expense of encouraging excess demand and fossil fuel lock-in, or fiscal sustainability. However, some form of safeguard to allow Member States to intervene in retail price setting might be needed for the future during a severe crisis, such as the current one. This could ensure that citizens have access to the energy they need, including ensuring that certain consumers have access to a minimum level of electricity at a reasonable price, regardless of the situation in the electricity markets, while avoiding subsidies for unnecessary consumption, such as heating of swimming pools[7]. This would also help ensure that when making large purchases, customers would take into account the full cost of energy. As the objective is to mitigate the impact of high prices during crisis periods, it would seem sensible to develop specific criteria to define a crisis in these terms. One alternative would be to link the Electricity Risk Preparedness Regulation, however this is focused on system adequacy, system security and fuel security, rather than mitigating the impacts of a crisis on users. Fossil fuel lock-in, however, needs to be avoided.

[1] Energiedelen en persoon-aan-persoonverkoop | VREG

[2] Lithuanian consumers to access solar parks under CLEAR-X project

[3] Spain, Croatia, Italy ,France.

[4] For example, network charges owed to TSOs and DSOs and potentially imbalance costs.

[5] In particular, we would consider confirming that customers transferred to Supplier of Last Resort retain the right to change supplier within normal switching times (i.e. customers cannot be required to stay with the supplier of last resort for a fixed period); clarifying that the supplier of last resort must be appointed based on an open and transparent procedure; right of consumers to remain with supplier of last resort for reasonable periods of time.

[6] The Energy and Climate Governance Regulation together with the 2020 recommendation on Energy poverty provide a more structural framework to address and prevent energy poverty. The Fit for 55 legislative package further reinforces this framework through other sectoral legislation, through the revision of the Energy Efficiency Directive and the Energy Performance of Buildings Directive and through setting up of the Social Climate Fund to address the impact of the ETS extension to buildings and transport.

[7] This is also in line with the Recommendation on the economic policy of the euro area which called for a two-tier energy pricing model, whereby consumers benefit from regulated prices up to a certain amount

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Energy sharing and demand response

Would you support a provision giving customers the right to deduct offsite generation from their metered consumption?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

Green Power Denmark will encourage the Commission to elaborate on its initiative. It is - among others - not all clear if the initiative aims at sole financial contracts between a consumer and offsite generation or relates to the establishment of a direct physical connection between a consumer and offsite generation.
The current EU-regulation houses rules on Energy communities. Within an energy community the participants can share energy from offsite generation. The energy communities are free to set its price for the energy shared with respect for taxes and approved tariffs by the (national) NRAs. Within an energy community there is no requirement for a direct physical connection between the consumer and offsite generation. See directive 2019/944 article 16(4).
With regards to the network tariff Green Power Denmark will highlight that the grid operators are obliged under article 18 of Regulation 2019/943. To this end a non-discriminatory and cost reflective tariff structure is needed. Article 16 of Directive 2019/944 refers directly to article 18 of Regulation 2019/943.
Green Power Denmark can only support the initiative to the extent, that the mechanism would incentivize co-location of production and consumption in such a way that it lowers the total cost to invest in and operate the grid. Allowing the deduction on the meter in circumstances where it does not lower the cost of investing in and operating the grid, would mean that the remaining customers would have to bear an extra cost. If the Commission assess that such an extra cost is conform with article 18 of regulation 2019/943, Green Power Denmark encourage the Commission to clearly stipulate this in any coming regulation under the initiative of Energy sharing.
Furthermore, it may be difficult to predict the customers consumption leading to increased imbalance costs for the electricity supplier. Hence it may only be attractive to offer spot products for this type of customer.

If such a right were introduced:

(a) Would it affect the location of new renewable generation facilities?

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

Possibly with a higher local acceptance, if implemented in an open, transparent and simple way with consultations and right of appeal, it may pave the way for efficient solutions. Additionally it may ease the acceptance of neighbours if they can actually see the effect directly on the electricity bill.

(b) Should it be restricted to local areas?

- (●) Yes
- ( ) No

If yes, why?

2000 character(s) maximum

Yes. National grid infrastructure works on a basis of collectivity. Co-locating consumption and production either behind the meter or through a ‘virtual metering point’ should only be allowed when the economic benefit for society is positive. However, it is important to ensure reliable measurements which are compatible with the verified main meter reading.

The benefits generally diminish with distance. Without such restrictions there is a risk of sub-optimal solutions with redundancy in grid which will inevitably lead to a non-cost-efficient electrification of Europe.

Do you have additional comments?

2000 character(s) maximum

(c) Should it apply across the Member State/control/zone?

- Yes
- No

Do you have additional comments?

2000 character(s) maximum

It should not apply outside the local price area/zone.

Would you support establishing a right for customers to a second meter/sub-meter on their premises to distinguish the electricity consumed or produced by different devices?

- Yes
- No

If yes, what particular issues should be taken into account?

2000 character(s) maximum

The implementation of the aggregator role in DK has been underway for many years due to discussions about metering and measurement driven by grid companies. If the customer can see a business in having two meters it should be an option (It's actually an option today). But it also means that aggregators must be electricity suppliers and BRP, and that was not the original thought about the aggregator role and I think it will reduce the number of aggregators and market development.
We would prefer that the main meter remains the central point of measurement for settlement and balancing purposes and feel that right is too strong a term here. Submetering generally comes in 3 varieties: 1) regular meters behind the main meter which are operated by the main meter operator (generally the DSO); 2) devices which are connected to their manufacturer, typically via the internet; and c) home automation systems. Our members are generally only comfortable with the first type of submeter.
However, we could be amendable to the implementation of more submeters if they have: a) reliable measurements which are compatible with the verified main meter reading; b) if they are used for flexibility products, it must be ensure that there is no offsetting effect from other devices behind the meter – the flexibility must materialize at the connection point; c) submeters should only be used for controlling appliances / devices if the DSO is informed and they can guarantee there is no danger for the system security; and d) that all data from the submeter is transmitted to the DSO in real time.

Do you have additional comments?

2000 character(s) maximum

Offers and contracts

Would you support provisions requiring suppliers to offer fixed price fixed term contracts (ie. which they cannot amend) for households?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

In general, further regulation of the area should be avoided, fixed price contracts should be market based and driven by consumer demand.
Only households are mentioned, but often the same rights are implemented for the SME segment. We prefer that the products are priced in accordance with the market prices, and that we do not have a delivery obligation in some segments or a fixed-price delivery obligation to some customers. This will most likely affect competition in the market in a negative direction and lead to fewer changes of supplier.
Furthermore, we are developing an electricity system with an increasing share of fluctuating production based on renewables. This system will need the consumers to adapt more to the production than now. Fixed prices will not incentivise the much needed demand response thus the take-up of fixed term contracts should in a future system be limited to ensure more flexible and adaptable consumption.

If such an obligation were implemented what should the minimum fixed term be?

at most 1 choice(s)

- ☐ (a) less than one year
- ☐ (b) one year
- ☐ (c) longer than one year
- ☑ (d) other

If 'other', please specify

250 character(s) maximum

This should not be regulated, it should bed market based and driven by consumer demand. This is a competitive parameter between retail companies.

Do you have additional comments?

2000 character(s) maximum

Cost reflective early termination fees are currently allowed for fixed price, fixed term contracts:

	Yes	No
(a) Should these provisions be clarified?	○	◉
(b) If these provisions are clarified should national regulatory authorities establish ex ante approved termination fees?	○	◉

Do you have additional comments?

2000 character(s) maximum

No, termination cost depends on the market situation and the current rules allow us to have our actual costs covered. The rules have just been implemented, and a quick look at competitors' terms and conditions of delivery indicate different interpretations implementations of the rules. Therefore, we see no need to give regulator increased power on that question when they are not following up on the current rules.

Do you see scope for a clarification and possible stronger enforcement of consumer rights in relation to electricity?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

The area is all ready heavily regulated, it should be analysed if there is a need for further rights. The outcome of stronger enforcement of consumer rights will not necessarily lead to lower consumer prices – on the contrary – as further regulation can hinder the competition.

Prudential supplier obligations

Would you support the establishment of prudential obligations on suppliers to ensure they are adequately hedged?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

No, it seems unnecessary in a Danish context and seems very bureaucratic. It should be up to the specific supplier to decide, as it depends on their specific market strategy.

Would such supplier obligations need to be differentiated for small suppliers and energy communities?

- ○ Yes
- ◉ No

If not, why not?

2000 character(s) maximum

No – there is no need for further regulation cf. Q8,

Supplier of last resort

Should the responsibilities of a supplier of last resort be specified at EU level including to ensure that there are clear rules for consumers returning back to the market?

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

It is stated in the questionnaire that all member states have implemented a system of last resort de jure or de facto but the effectiveness may vary.The Commission would in particular consider; confirming that customers transferred to supplier of last resort retain the right to change supplier within normal switching time; clarifying that the supplier of last resort must be appointed based on an open and transparent procedure; right of consumers to remain with supplier of last resort for at reasonable periods of time. Denmark has a very well-functioning system both de jure and de facto to secure that customers are transferred to a supplier of last resort. Within the existing Danish regime all customers are guaranteed electricity supply at any time and customers can return back to the marked by contracting with a new supplier if they do not wish to continue with the appointed supplier. Guaranteed electricity and contracts on market terms are achieved by having a system, where the suppliers once a year to indicate if they are willing to receive customers who need transfer from a supplier who no longer can deliver its services. Emergency regulation is in place in case no suppliers are willing to receive customers in need of transfer. The customer has the right to terminate the contract with appointed supplier with one month's notice (to the end of one month) thus enabling the customer to switch suppliers very quickly and faster than the normal binding periods. It should also be noted that the appointed supplier is not permitted to decline customers delegated to it (in accordance with the rules and process stipulated in the national law), and the price for energy supply in these instances is regulated directly by law. This price is binding for the appointed supplier for the first three months duration of the contract. The Danish system is supported by a digital datahub.

Would you support including an emergency framework for below cost regulated prices along the lines of the Council Regulation (EU) 2022/1854 on an emergency intervention to address high energy prices, i.e. for households and SMEs?

- ○ Yes
- ◉ No

(a) If such a provision were established, should price regulation be limited in time and to essential energy needs only?

- ◉ Yes
- ○ No

(b)

	Yes	No
Would such provisions substitute on long term basis for direct access to renewable energy or for energy efficiency?	○	◉
Can this be mitigated?	○	◉

(c)

	Yes	No
Would such contracts reduce incentives to reduce consumption at peak times?	○	○
Can this be mitigated?	○	○

Do you have additional comments?

2000 character(s) maximum

No it should be phased out. It is the free market that has to dictate prices, and there should be as few interference with the market rules as possible. Too many specific interferences with the free market will lead to uncertainty and fewer investors, which are important in the green transformation.
Low prices following market interference are likely to give incorrect price signals in relation to saving energy. In Denmark, there's a big difference between DSO prices across the country and not least whether DSO has implemented time zones (Tarifmodel 3.0). So the effect of a fixed price from the energy supplier will lead to widely different behaviour depending on the DSO tariff.
Additional comment to (c) "Would such contracts reduce incentives to reduce consumption at peak times, can this be mitigated?"
It will reduce incentives to reduce consumption at peak times, this can only be mitigated by sending the true and underlying price signals. Thus it will be counterproductive regarding the necessary change to flexible consumption and need demand response – also in order to decarbonise and lower use of fossil fuels.

Enhancing the Integrity and Transparency of the Energy Market

Never has there been as much of a need as today to enhance the public's trust in energy market functioning and to protect EU effectively against attempts of market manipulation.

Regulation (EU) 1227/2011 on wholesale market integrity and transparency (REMIT) was designed more than a decade ago to ensure that consumers and other market participants 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.

In times of extra volatility, external actors' interference, reduced supplies, and many new trading behaviours, there is a need to have a closer look as to whether our REMIT framework is robust enough. In addition, recent developments on the market and REMIT implementation over last decade have shown that REMIT and its implementing rules require an update to keep abreast. The wholesale energy market design has evolved over the past years: new commodities, new products, new actors, new configurations and not all data is effectively reported. The existing REMIT framework is not fully updated to tackle all new challenges, including enforcement and investigation in the new market realities.

Current experience, including a decade of REMIT framework implementation (REMIT Regulation from 2011 and REMIT Implementing Regulation from 2014) and functioning show that REMIT framework may require improvements to further increase transparency, monitoring capacities and ensure more effective investigation and enforcement of potential market abuse cases in the EU to support new electricity market design. The following areas could be considered in this context:

- The alignment of the ACER powers under REMIT with relevant powers under the EU financial market legislation including relevant definitions, in particular the definitions of market abuse (insider trading and market manipulation);
- The adaptation of the scope of REMIT to current and evolving market circumstances (new products, commodities, market players);
- The harmonisation of the fines that are imposed under REMIT at national level and the strengthening of the enforcement regime of certain cases with cross-border elements under REMIT;
- Increasing the transparency of market surveillance actions by improved communication of the market-related data by ACER, regulators and market operators.

What improvements into the REMIT framework do you consider as most important to be addressed immediately?

4000 character(s) maximum

In general, Green Power Denmark believes that the REMIT framework has worked well as a sector specific regime in the energy industry. Green Power Denmark therefore does not see the need for a fundamental review as overall regulatory stability is key for market participants. However, this said, we believe some adjustments could be considered:
a. Broader scope: Extend the scope of REMIT to (1) capacity markets and (2) hydrogen market, although the latter is still in creation. As regards complementing (1) capacity markets it involves a review the definition of markets participants to include DSOs, SSOs and LSOs.

b. Reduce (simplify) scope: Modify the definition of wholesale energy products in order to delete the inclusion of “contracts for the supply and distribution of electricity or natural gas to final customers with a consumption capacity greater than the threshold set out in the second paragraph of point (5) shall be treated as wholesale energy products”.
c. Insider knowledge threshold: Ease daily handling of insider knowledge by investigating the possibilities for introduce a triggering threshold for publication of such information for natural gas, electricity and hydrogen ideally at European level or at least at national level)
d. Provisions for IIPs and RRMs: define responsibilities and adequate level of requirements for Inside Information Platforms (IIPs) and 'Registered Reporting Mechanisms' (RRMs) incl. terms of performance and availability.

With regards to the harmonization and strengthening of the enforcement regime under REMIT: what shortcomings do you see in the existing REMIT framework and what elements could be improved and how?

4000 character(s) maximum

Green Power Denmark believes that the current national frameworks for administrative and penal sanctioning are balanced systems, which has been developed over years and are customised to the national context. For these reasons we do not see any need or justification for harmonisation across EU, as this could potentially break up the balance achieved within the national setting in this regard, incl. how national proceedings’ decisions are processed.
This said, the following adjustments should be considered:
a. Introduction of a prohibition on double penalties (ne bis in idem) to avoid that firms and/or persons would be punished twice by two NRAs
b. Introduction of an obligation for NRAs to publish sanctioned REMIT breaches with key points from authorities in English language that could serve as lessons learned for other Market Participants.
c. To ensure proper stakeholder involvement & cost-benefit analysis before introducing any changes to the REMIT framework we believe that it a clear obligation for ACER to consult stakeholders on any documentation related to the interpretation and implementation of REMIT should be put in placed.

With regards to better REMIT data quality, reporting, transparency and monitoring, what shortcomings do you see in the existing REMIT framework and what elements could be improved and how?

4000 character(s) maximum

Green Power Denmark recommends the following measure to simplify data reporting for market participants:
• Avoid double data reporting of REMIT reporting data, but continue to allow for market participants to do it themselves.
• Authorities, incl. NRAs, should collect data from ARIS or at other authorities which have already received the data in question from market participants.
• Request the collection of fundamental data directly to TSOs, DSOs, LSOs and SSOs.
• Introduce single-sided reporting by organized market places (OMPs) as a common rule for transactions entered into over OMPs. Delegation of reporting to one counterparty for OTC transactions but only if the legal liability and responsibilities for delivery/accuracy etc. are borne by the reporting counterparty and removed from the delegating counterparty (otherwise counter parties will have to continue to do it themselves
• Integrate the LNG market data reporting into the general REMIT reporting framework (as requested according to the Gas Market Correction Mechanism)
• Extend REMIT scope and competence of ACER / NRAs to not only cover physical, but also derivatives

energy (gas and power) wholesale markets to create one single market integrity regime to facilitate compliance for firms and to reduce complexity and legal uncertainties of oversight from different authorities under different regimes

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