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

* First name

Kristin

* Surname

Rasdal

* Email (this won't be published)

kristin.rasdal@fornybarnorge.no

* Organisation name

255 character(s) maximum

Renewables Norway

* Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- (selected) 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.

Energy Norway is registered in the transparency register (identification number in the register: 50098025830-01). Energy Norway and the Norwegian Wind Energy Association (NORWEA) merged on Feburary 1 and the name was then changed to Renewables Norway

* 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	Dominica	Liechtenstein	Saint Pierre and Miquelon
Albania	Dominican Republic	Lithuania	Saint Vincent and the Grenadines
Algeria	Ecuador	Luxembourg	Samoa

- American Samoa
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- Bosnia and Herzegovina
- Botswana
- Egypt
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- Equatorial Guinea
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- Gibraltar
- Greece
- Greenland
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- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar/Burma
- Namibia
- Nauru
- Nepal
- Netherlands
- San Marino
- 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

Bouvet Island
Brazil
British Indian Ocean Territory
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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

Guernsey
Guinea
Guinea-Bissau
Guyana
Haiti
Heard Island and McDonald Islands
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Tuvalu
Uganda
Ukraine
United Arab Emirates
United Kingdom
United States
United States Minor Outlying Islands
Uruguay
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Croatia	Kuwait	Romania	Vietnam
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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
- [x] d) Distribution System Operator
- [ ] e) Market operator
- [x] f) Energy company with generation assets
- [x] g) Independent energy supplier with no generation assets
- [x] 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?

- (x) Yes
- ( ) No

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

2000 character(s) maximum

The current EU legislation enables the development of efficient PPA-markets. PPAs have always been an important part of the Norwegian electricity system, and the PPA market in Norway is relatively large compared to other countries, due to the larger importance of energy intensive industry. Nothing in the current regulation prevents retailers to engage in PPAs on behalf of smaller final costumers, but the demand for long term agreements on fixed terms has been very low in Norway.
The Norwegian/Swedish support scheme (elcertificates) is compatible with PPAs. Approximately 50 % of the wind power plants in Norway have been developed through PPAs. In April 2019 the process of approving new wind power projects was paused (affecting supply of PPAs), and it was resumed only recently.
Norwegian hydropower plants are subject to a high level of resource rent taxation (45 %) in addition to ordinary corporate taxation (22 %). The resource rent tax is calculated on the basis of the power generated multiplied with spot market price, with some exceptions. The exceptions include PPAs that are concluded on specific terms, were the tax is calculated based on the contractual price. For more flexible PPAs on other terms, hydropower plants must pay the tax based on spot price. Norwegian hydro power producers who hedge too much of their production (the financial market or PPAs not exempted in the resource rent tax regime) face a severe tax risk.
Furthermore, a challenge with long industry PPAs exempted from the resource rent tax is counterparty risk as there are not bank guarantees of equivalent duration. The Norwegian export credit guarantees are only available for some costumers.
Other barriers include lack of transparency, unclarity on pricing (since a PPA is unique), the current price levels (which influence the terms of new PPAs), lack of standardization and complex process, transaction costs and costly bank guarantees (an issue particularly for smaller players).

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

Our comment relates to the premise in the question and to what extent we should strengthen the roll-out of PPAs. We are positive to removing barriers to PPAs but warn against favoring PPAs on behalf of transparent and liquid financial markets that offer a wide range of hedging instruments. PPAs are tailormade and allows for a more direct claim on renewables. PPAs are suitable for some customers, but an equally strong emphasis should be put on strengthening the role and liquidity in the financial forward-markets. The financial forward market and PPA-market complement each other and we need both

PPAs entail large transaction costs, while the financial market has standard terms removing negotiation costs. Counterparty risk can be a major cost hidden in a PPA, while the regulation in the financial market reduces this risk significantly. The fact that PPAs are tailormade, also make it difficult to get out of a PPA or sell it to someone else when circumstances change. A larger extent of PPAs will reduce the number of customers exposed to short term price. There is a trade-off between protecting customers from price volatility and preserving incentives to trigger demand reductions in peak hours and when prices are high

We see the value of introducing some form of standardization of contracts, to pool demand and enable second trading, but it is important to realize that PPAs are often used to solve a specific industry problem and freedom to enable tailor-made contracts must be preserved

Cross-border financial PPAs are already possible. The consequences and possible solutions for facilitating physical cross-border PPAs should be investigated further.

State-supported schemes should not be introduced to strengthen the roll-out of PPAs in itself, but when such schemes are introduced it should be possible to combine them with PPAs. For example that a CfD only covers part of the production and enables the producer to opt out if necessary hedging can be achieved in the market

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

The EU legislation applicable for financial PPAs may be a barrier for smaller companies who needs to set up systems and reporting routines due to requirements in the EMIR and MIFID II framework. These barriers should be reduced.

The PPA market is characterized by lack of transparency. A few utility players and large industrial consumers are active and operate in the market, but for others the market can be perceived as a black box with little clarity on the prices and terms. The lack of transparency is a barrier itself, and measures to increase transparency should be considered. The EU legislation should ensure that there are now barriers to enable such transparency.

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

- ○ Yes
- ◉ No

Please explain

2000 character(s) maximum

Although it is possible to create stronger incentives, this will also come with a cost, and this approach is thus not advisable. More PPAs will reduce liquidity in the financial forward market and by that undermining long-term transparency. PPAs and other financial hedging instruments offer protection from the volatility in the whole-sale market for both customers and producers. In Norway, power plants are often owned by municipalities and/or the state, and they prefer a stable cash flow, and power producers already have an incentive to hedge. Power producers should be free to hedge through bilateral and financial trades as they see fit for their business strategy. The power companies' decision on the appropriate level of hedging is often determined by several factors, one important is how the national tax system is designed and hence gives incentives/disincentives to hedge.
As an example, Norwegian hydropower plants are subject to a high level of resource rent taxation (45 %) in addition to ordinary corporate taxation (22 %). The resource rent tax is calculated on the basis of the power generated multiplied with spot market price, with some exceptions. The exceptions include PPAs that are concluded on specific terms regulated in national law, were the resource rent is calculated based on the contractual price. For more flexible PPAs on other terms, hydropower plants must pay resource rent based on spot price and not the contractual price. Norwegian hydro power producers who hedge too much of their production (the financial market or PPAs not exempted in the resource rent tax regime) therefore face a severe tax risk.

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	◉	○

If yes, how can these risks be mitigated?

2000 character(s) maximum

Regarding a) The linkage between a larger extent of PPAs and liquidity on the short-term market should at least be explored. Most Norwegain power producers who have entered into PPAs still use the short-term market, while this is not the case in many other European countries. PPAs should be designed in a way that enable market players to still use the short-term spot market.

Regarding b) undertaking of different sizes may have different bargaining positions in the PPA market. Unlike the financial forward market, the PPA market is characterized by a lack of transparency and limited information on prices and terms available for different market participants. While larger undertakings are more likely to have favorable bargaining positions, smaller participant can risk to enter PPAs at less favorable prices and conditions.

Another challenge with PPAs is the high transaction costs and need for systems and competences for follow-up of the contracts. This can give a benefit for larger undertakings vis-a-vis smaller ones. Tailormade PPAs entail large transaction costs due to (among others) negotiations, shaping cost and counter party risk.

Regarding e) There are often large negotiations associated to tailormade PPAs, that are passed on to customers. Furthermore, short term market prices tend to influence the price level when entering a new PPA.

Please explain

2000 character(s) maximum

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?

- (x) Yes
- ( ) No

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

- ( ) Yes
- (x) No

Do you have additional comments?

2000 character(s) maximum

Since the financial crisis in 2009, there has been a gradual reduction in the liquidity in the Nordic financial market, further exacerbated by the introduction of EMIR and MIFID II. Last year only 409 TWh were traded and cleared at Nasdaq, a reduction of 50 % and the lowest registered level in 25 years.

In the Nordic market, the fundamental financial instruments used to hedge power price risk are futures contracts referenced against the Nordic system price - a regional benchmark price covering the entire Nordic market. A complimentary financial derivative, known as an Electricity Price Area Differential (EPAD), can be used to hedge the difference between the system price and the power price specific to a bidding zone area. System price futures allow market actors to hedge against broad regional changes in the price of power. However, to fully hedge the price for a specific area, a combination of a system price future and an EPAD is required. Several reports and surveys confirm the lack of liquidity for financial derivatives used for power-price hedging in the Nordic market. While there is some liquidity that currently enables the mitigation of some short-term volatility, the liquidity of EPADs is very low. Liquidity on longer dates products to support investments in new capacity is insufficient and lacking.

An important benefit of the forward market is reduced counterparty risk. Standardized products also make it easy to enter into and out of positions. In our view this market is key for market participants to efficiently hedge, particularly in the short-term horizon.

We welcome the removal of regulatory burdens that prevents participants to enter the forward market (both the financial and bilateral PPA-market). We also welcome the further exploration of measures to increase the liquidity in the financial forward market, such as market making and coupling of forward markets.

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

2000 character(s) maximum

Collateral requirements: The cost and difficulty of managing the collateral requirement is encouraging hedging by other means and trade outside the exchange. There is a discrepancy in the timing of effects for a financial hedge and a physical asset which creates liquidity risk. Furthermore, current collateral arrangements fail to account for the creditworthiness of physical players taking hedging positions. As such a generator selling power faces the same collateral requirement as a bank even though the generator has a clearly offsetting physical hedge. The regulatory burden with regard to collateral and reporting obligations for companies who are active on regulated marketplaces should be reduced through revision of the relevant financial legislation. We welcome ACER's and the EC's call to relevant financial authorities to explore possible solutions to reduce the barrier to trade at organized market places.

Political risk: National measures to gather windfall profits often fail to account for hedging in the forward market. Financial hedging now entails a risk that is greater than, hedging achieved using PPAs. In Norway a temporary income cap has been introduced (approx. 70 euro/MWh), and gains and losses on financial contracts entered into after Sep. 28 2022 cannot be taken into account in the settlement of the tax.

Poor liquidity, notably in EPADs, means that hedging the power price in a specific bidding area is costly and risky (cannot readily change a position). This lack of liquidity reflects that fact that bidding zone EPAD markets are not coupled markets (unlike the spot market). Some small bidding zones therefore have very few active players and may have totally imbalanced supply and demand volumes, both of which result in structurally poor liquidity. This needs to be taken into consideration in the Bidding Zone Review framework. There is also a risk that reconfiguration of bidding zones will affect the value of a financial contract, e.g. an EPAD.

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

The Commission claims that "the crisis has 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".

We don't see this problem in Norway. In Norway there is sound competition in the retail markets, with approximately 100 retailers providing a variety of products and no barriers to new market participants. Most Norwegian retailers are hedged back-to-back, and we have not had a problem with bankrupt suppliers. The demand for fixed term contracts have however been low, and it is not possible for suppliers to carry the costs if there is no demand from the customers. In the long run this will lead to higher costs for the consumers. Some of the suppliers only offer hourly based contracts, and an obligation to hedge would incure unnecessary costs which will be passed on to the customers.

Hedging obligations would probably not change much for Norwegian retail companies or the competition in this market in Norway. We understand, however, the need to investigate solutions bankruptcy in the retail sector is a problem in other European countries. As a first step, we think it is important to enable retailers to efficiently hedge themselves via well-functioning forward markets. Furthermore, we are skeptical to introducing requirements and obligations on European level to sort problems that are of more local or national character.

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

- Yes
- [x] No

Do you have additional comments?

2000 character(s) maximum

We welcome the ACER/CEER report on the development of the forward market, and ACER's newly published policy paper on the same topic. The reports identify several problems and points to interesting solutions that merit further exploration.

In the Nordic area, characterized by several bidding zones within a country, we have good experience with a virtual hub (the Nordic system price) with Electricity Price Area Differentials (EPADs), i.e. a financial derivate that enables to hedge the difference between the Nordic system price (hub) and the power price specific to a bidding zone area. We are of the opinion that transmission rights are less appropriate for the Nordic situation. In our view, it is therefore important that "equivalent measures" to ensure sufficient cross-border hedging possibilities can be used instead of Long term Transmission Rights also in the future, such as the current FCA regulation and Regulation EU 2019/943 enable. It is also important that regulators can make exceptions from the main rule (obligation to issue Long Term Transmission Rights or equivalent measures that enable to hedge price risk across bidding zone borders) in cases where the regulatory authorities identify that the forward market provides sufficient hedging opportunities in the concerned bidding zones. We are glad to see that ACER in its recent policy paper suggests that further development of the current Nordic solution can be an alternative to the default regulatory intervention that they suggest.

The liquidity of EPADs is low, and we welcome measures to increase liquidity in this market. One measure to follow closely in the time to come is the EPAD auction pilot in Sweden. Possibilties to couple EPAD-markets should also be explored, and we look into the further investigation of the alternatives proposed by ACER in their latest report.

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

- [x] Yes
- No

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

8

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

2000 character(s) maximum

The design of the forward market in the Nordics is based on a so-called “system price” as “hub price”. One reason for such a design was the presence of many small bidding zones in the region, and hence the need for a liquid hub that could work as a proxy for producers and consumers to hedge the price risk. For many years, the system price had a very high correlation with the area prices in Norway (and several of the other Nordic countries). The last years, this correlation has been reduced. Hence, the market participants in Norway (and the Nordic) face a stronger need to use EPAD (Electricity Price Area Differential)-contracts, and not only system price contracts, to reduce the price risk. Since the EPAD contracts generally have low liquidity and high bid-ask spreads, this is a challenge for many market participants. Hence, measures which aims at increasing the possibilities for market participants to hedge their price risk, i.e. through improved liquidity in the EPAD-market, should be considered. One measure to follow closely in the time to come is the EPAD auction pilot in Sweden.

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

The financial forward market offers a transparent and organized marketplace with a wide range of hedging instruments. This market is important for investment signals for electricity production, for market participants to correctly price PPA agreements and also a prerequisite for an efficient and competitive retail market, enabling retailers to hedge on behalf of their customers. Preserving this market is therefore key.

We welcome the further exploration of measures to increase the liquidity in the financial forward market, such as market making and coupling of forward markets. Furthermore we welcome the ACER/CEER report on the further development of the EU electricity market and ACERs recent policy paper on the same topic. ACER has identified options that merit further exploration.

It is important to recognize that a roll-out of PPAs and CfDs will reduce liquidity in the financial forward market, and we warn against these bilateral arrangements on behalf of a transparent and liquid market place. Regulatory burdens and collateral requirements should be eased. Implementing art. 30 in the Forward Capacity Allocation Guideline will also improve the forward market.

We welcome the European Commission's and ACER's call to relevant financial authorities to explore possible solutions to reduce the barriers to trade at organized market places. We also welcome the European Commission's proposal to amend EMIR, and urge policy makers to reduce barriers while preserving a stable and safe financial market through this revision.

Furthermore, we strongly warn against deleting or narrowing the Ancillary Activity Exemption (AAE) under MiFID II. A change to this exemption will deteriorate the Nordic forward market as many of the participants that today fall under this exemption would not be able to bear the increased regulatory burden and would leave the market. A change to this exemption will also affect financial PPAs and long-term contracts defined as financial instruments under MIFID II.

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)?

- (x) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

We support market-based solutions prior to centralized solutions and public intervention. When possible, investments should always take place on markets conditions and governmental support scheme should be reserved to realize investments in immature technologies that are not forthcoming on a market basis and therefore need public support for its realization. CfDs can be a suitable tool for reducing risk for investors, but the design must be carefully considered to ensure that they are compatible with short-term markets and that the incentives to respond to short term price signals remain.

We would also like to emphasize that CfDs are already part of the current market design, and that the Guidelines on State Aid for Climate, Environment Protection and Energy enables member States to introduce CfDs through auctions. It should be the prerogative of each Member State to decide on what terms new power production is developed, as long as it in accordance with state aid rules and do not distort competition.

With regard to the different propoals suggesting rather centralized and not-marked based solutions, we would also like to refer to the Treaty of the Functioning of the European Union article 194, paragraph 2: Such measures shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply, without prejudice to Article 192(2)(c).

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

As mentioned above, CfDs can be a suitable tool for reducing risk for investors and should be reserved to investments that need public support for its realization. If the premise is that investments are not forthcoming on a market basis, it is difficult to see how these contracts shall be used as an efficient means to mitigate electricity price spikes. Electricity generation based on technologies that are commercially viable on the market, should be realized through the financial market and/or through PPAs.

Furthermore, it is highly unclear how the how the benefits of the CfDs would accrue to consumers. Whether CfDs can be designed in a way that makes them compatible with PPAs is, however, an option worth further exploration.

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

2000 character(s) maximum

CfDs should be used as a means to realize investments in immature low-carbon solutions and technologies that the market is unable to deliver.

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

2000 character(s) maximum

CfDs are in competition with the PPAs and products in the financial market. We should enable commercial solutions prior to government support, and government support should be reserved to the technologies that need it in order to be realized.

What technologies should be excluded and why?

2000 character(s) maximum

Technologies that are commercially viable.

Furthermore, conventional CfDs distort short-term market signals, particularly for flexible plant with variable costs and/or if these costs change over time. For instance, it is crucial that a flexible hydro power plant has incentives to produce in peak hours when demand is high, and save water in periods with low demand. Each day, flexible hydro power producers face the choice of producing now or saving the water for later. These decisions are taken under uncertainty, as the future level of precipitation is unknown. If the power plant cannot gain anything more by saving the water for expected price peak hours, the power plant will not have the incentive to save water for the periods when it is most needed. Our system needs more flexibility, and it is crucial that flexible generators have incentive to contribute with their flexibility.

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

In general, CfDs normally undermines the incentive to act according to the market signals, which could give increased volatility or higher costs for balancing as a result.

When introducing CfDs, operators of power plants will not have incentives to make decisions on market prices alone, but will have incentives to take into account the support regime. Conventional CfDs (remuneration based on output) gives the generator incentives to maximize production. If the revenue across all hours of production equal the strike price, there is no incentive for the generator to increase output at times of high prices (scarcity), to schedule maintenance at times of low demand or to reduce output at times of low/negative prices (abundance). These effects are damaging for all technologies, but particularly for technologies with higher variable costs and flexible assets (for example hydropower with reservoirs and storage plants).

Since it is a fixed price, it will reduce the liquidity in the PPA market and the regular financial market with negative impact on retailers opportunity to hedge for fixed price contracts. Project developers who enter into a CfD will not have the incentive to enter into PPAs that could benefit retailers, industry and other customers who are interested in long term hedging.

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

This must be investigated more thoroughly, but it is important to ensure the right incentives with regard to increase output at times of high prices (scarcity), to schedule maintenance at times of low demand or to reduce output at times of low/negative prices (abundance). Such design principles must be investigated more thoroughly.

Whether CfDs can be designed in a way that makes them compatible with PPAs is also an option worth further exploration (for example if the CfD does not cover 100 % of the volume).

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

It should be the prerogative of each Member States to decide how to use potential revenues generated by two-way CfDs, and whether these shall be channeled back to electricity consumers or not.

In Norway, power consumption correlates with income, and revenues allocated to consumers proportionally would (at least on household level) mean that high-income households would receive relatively more.

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

Given that CfDs are used to enable investments that the market is unable to deliver, the duration should be of a length that enables the investments. It should differ for different technologies since all technologies have different technical lifespan.

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

They should be able to earn full market revenues when the CfD expires.

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

Enabling Member States to retroactively impose CfDs on existing generators would be very unfortunate and harmful for investors' confidence. These investments were carried out given other conditions, and imposing CfDs on existing generation would be detrimental for investors' confidence, not only nationally but also in other member states. In their report World Energy Outlook 2022, the IEA estimates a need for approximately 750 billion EUR in annual private investments in 2030 to reach net zero by 2050 in advanced economies. The possibility to retroactively impose a two-way CfD on existing assets would be detrimental to investor certainty and risk investments needed for the green transition. This would strongly undermine the EUs ambitions for climate action described in the European Green Deal and the Fit-for-55 package.

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

We warn strongly against retroactively imposing CfDs on existing generation for the reasons mentioned above.

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

In our view, none of the alternatives mentioned in the question are advisable. A better solution would be a well designed windfall profit tax collecting a percentage of net revenues. Such taxes should neither distort dispatch decisions nor investments decisions, and make sure that projects which are profitable before taxation also are profitable after.
We understand this question as to applying for existing generation, and whether we prefer a ceiling or a revenue guarantee. We prefer a revenue ceiling, and not revenue guarantees.

However, we still remind that a revenue ceiling would still distort revenues needed to attract new investments. Such investments would in the end help realising renewable targets and reducing electricity prices.

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 financial forward market offers a transparent and organized marketplace with a wide range of hedging instruments. Preserving a transparent and liquid market for long-term hedging is the most important measure. This market is important for investment signals for electricity production, for market participants to correctly price PPA agreements and also a prerequisite for an efficient and competitive retail market, enabling retailers to hedge on behalf of their customers. This being said, we recognize that the financial forward is particularly important for hedging operation. Forward prices are the best guess on the future value of power, and should be the drivers for new investments.
We are positive to market-based PPAs and CfDs to enable necessary investments, but it must be recognized that the financial forward market compete with the bilateral market. The bilateral market is less transparent, entails counterparty risk and high transaction costs. Although we support removing regulatory barriers to enter into PPAs, PPAs should not be favored at the expense of the financial market.
We are also concerned about a too large extent of long term agreement with fixed prices. How this could influence bidding behaviour and the short-term markets should be carefully investigated. In general, contracts with a fixed price and no volume restrictions risk deteriorating the role of short-term price signals. Although the current market model can be improved, the introduction of far-reaching governmental participation can at worst damage a market which has served us well for decades.
Despite low electricity certificate prices (Norwegian/Swedish support scheme), we have experienced significant investments in new power generation in Norway until the process of considering new licensing applications was paused in April 2019. It is in our view important that state-backed solutions are used when the market is unable to deliver the necessary investments.

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

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

- (x) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

A Transmission Access Guarantee (TAG) can be a suitable tool to mitigate the “volume risk” for generators in offshore hybrid projects. However, TAG will not be enough to incentivise the first offshore hybrid projects. Offshore hybrid projects today are riskier than connecting wind farms to individual countries and building separate interconnectors, although they bring significant socio-economic welfare benefits such as increase in market integration and decrease in system costs. To unlock the potential of offshore hybrids it is key to hedge both volume and price risks. Options such as redistribution of congestion income, CfDs or a combination of solutions should be used to complement TAG and hedge the offshore generators against “price risk” as well.

TAG addresses the economic risk that offshore generators face when the TSOs reduce the transmission capacity allocated to the market to ensure system reliability (operational deratings). Without TAG, offshore wind developers will be exposed to the risk of a price collapse in an offshore bidding zone every time the generation exceeds 70 % of the export capacity. While we consider TAG a good solution to address the “volume risk” for offshore wind farms (OWFs), it could be further improved. With the existing proposed formula, TAG will undercompensate OWFs when the value of prospectively curtailed volumes in the day-ahead market is significant. This can be corrected by including the prospectively curtailed volumes in the compensation mechanism. A transmission access guarantee will provide TSOs with a strong incentive to provide adequate interconnection capacity to the market for the bidding zones that primarily provide power to be consumed in other bidding zones.

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

Estimates from the Norwegian Water Resources and Energy Directorate (NVE) show that by 2021 onshore wind power had become the most cost-effective technology for new renewables that can be deployed in significant quantities. By 2023, however, we observe an almost 50% increase in cost. On top of this a new tax proposal will, if adopted, disincentivize PPAs and increase the levelized cost of energy by an additional 10 Euro / MWh. In total the levelized cost of wind power will have almost doubled since 2021.
In addition the development of wind power in Norway has, been highly controversial. In April 2019 the process of approving new projects was paused, and it was resumed only recently. For a relatively long period, no new licenses have been given. We need a true step change in permitting.
Small scale hydropower is also potentially an important contributor in the short term. Slow permitting processes and reoccurring tax scares do however make development challenging.
Finally, the development of additional capacity in large hydropower was for all practical purposes put on hold by increased and additional taxes announced in 2022.
In sum, two things are require to reach the needs for renewable energy in 2030.

- A major reduction in permitting times
- A tax reform that removes disincentives to build more renewable energy

The electricity market integration should be pursued, especially by making a maximum amount of cross-border interconnection capacity available to the market.

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

The current regulatory framework does not take into account the urgency of needed investments in network infrastructure. The grid, both the transmission and the distribution networks are congested, and we need to look deeply into the regulation to ensure better investments incentives. The investment framework for network operators is defined at national level, as it should be, but we recommend setting a European mandate stating that all "obstacles" to increased and necessary grid expansion must be removed at national level.

The congestions in the grid and the effect on investments in green industry must also be a topic for the public to prepare for the building of new grid investments.

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

2

(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

It should be the prerogative of each Member State to decide how to tax national entities. Furthermore, the inframarginal revenue cap has several drawbacks.

First, it fragments the European electricity market. As we have seen with the Council Regulation 2022/1854, uncoordinated implementation in the Member States undermines the integrity of the electricity market.

Secondly, an inframarginal revenue cap affects producers' incentives to increase production and lead to less production and less available flexibility and, in general, eroding the signals for an efficient dispatch.

Thirdly, the implementation of the cap raises significant implementation challenges. With regard to the recently adopted EU cap on inframarginal generators, there has been lack of guidance from the Commission and the possibility for the Member States to extend the measure to supposed revenues that have not actually been realised has been particularly problematic.

Fourthly, the cap is already breaching investors' confidence and disincentivizing crucial investments needed in RES & low carbon capacities to reach EU decarbonization objectives. Integrating this badly designed tool in the European Electricity market design review will only increase even more the investors' uncertainty. Less investments will lead to higher utilization of old capacity (with a negative impact on climate goals).

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

- (x) Member States
- ( ) EU

Do you have additional comments?

2000 character(s) maximum

It should be the prerogative of each Member State to decide how to tax national entities.

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

It should be the prerogative of each Member States to decide how to use the inframarginal revenues, and whether these shall be channeled back to electricity consumers or not.

In Norway, power consumption correlates with income, and revenues allocated to consumers proportionally would (at least on household level) mean that high-income households would receive relatively more.

Furthermore, a revenue cap will affect the actions of the market participants, both in the operation as in investments, hence the outcome of the current measure should be analysed before any new decision is taken,

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

There are alternatives, but no alternative is more effective and hence to lowest costs for customers and society. Marginal pricing is for sure the most efficient way for pricing scarce resources and to enable a cost-efficient transition towards less carbon and lower dependency on fossil fuels in combination with EU-ETS.

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

3000 character(s) maximum

Carbon pricing and well-functioning carbon markets is an efficient tool for driving the transition of the European energy system in a technology neutral and market-based manner, ensuring that the most cost-efficient measures are initiated first. The relative market advantage that non-CO2 emitters will obtains vis-à-vis fossil fuels will positively affect both generation, flexibility and storage.

In our view, the short-term pricing signals from day ahead, intraday and balancing markets should be the main driver for incentivizing low carbon flexibility and storage. Prices here are already influenced by the EU ETS.

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

The closer the gate closure is to real time, the better the information for market participants to make efficient decisions which implies an efficient allocation of resources. It is important that GCTs are harmonized, and order-books shared within the EU to provide a level playing field amongst exchanges and market participants. In addition, GCTs should be coordinated between the day-ahead, intraday and balancing markets, taking market participants', exchanges' and TSO's processes into account.

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

Yes, this will provide a level playing field for all market operators, increasing the competition in the intraday timeframe and potentially lowering the cost to market participants.

In general, if TSOs or DSOs have needs that could be solved with local flexibility through market mechanisms, such behavior should be encouraged. Also intra-zonal trade between market participants after cross-border GCTs could enable a more efficient balancing of the system. However, operational issues for TSOs and DSOs could arise from trade close to real time, so there probably needs to be some coordination.

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

- [x] No

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

2000 character(s) maximum

In Norway, most of the production capacity is offered in the day-ahead market, also if it is subject to financial contracts. This secures liquid, transparent and competitive short term markets, which is important. However, we do not support mandatory participation, rather a market design where participants are incentivized to participate in the day ahead market.

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

More information could be useful to optimize the balancing markets, but it is unclear if this is the case for day ahead and intraday markets. The Euphemia algorithm is already facing a challenge in clearing the day ahead market in certain situations within a reasonable timeframe, and this is expected to become even more challenging with the implementation of 15 min MTU, the implementation of flow-based market coupling. It is unclear how more information is going to be useful in this context.

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

Flexible resources price volatility is the major incentive for the development for these technologies. Therefore, 15 minutes MTU in day ahead and intraday markets could enhance this development. The ongoing implementation of European balancing markets for mFRR and aFRR with capacities shared cross-border could further incentivize investments in low carbon flexibility and storage. Regulation on income and profits will decrease investments and participation in the markets, which rely on price peaks.

We are not convinced that the issues around the development of flexibility assets and services should be tackled in the market design review. Rather, we find the majority of the work on this development should be covered in the forthcoming Network Code on Demand Response and by ensuring proper transposition and implementation of the relevant articles in the current version of the Electricity Directive.

It is important that the Network Code is well balanced when it comes to the TSO and the DSO's use of the same sources of flexibility.

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
- [x] No

Do you have additional comments?

2000 character(s) maximum

The regulation framework today with both OPEX and CAPEX give remuneration, but still we see that the remuneration for investments is not sufficient to ensure sufficient investments to build new and increase existing grid capacity. One could, on the other hand, look into what the Norwegian NRA have done when it comes to R&D. Investments in R&D and innovation are allowed as an extra income for DSO's within a limited threshold. This threshold can also be increased due to application from utilities.

In a situation with high grid investments needed to meet demand, it is important that the investment incentives are not weakened now.

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?

- [x] Yes
- [ ] No

Do you have additional comments?

2000 character(s) maximum

Enabling the use of sub-meter data could make it easier for final customers to have a service provider independent of the ordinary supplier, in order to increase competition and facilitate access to aggregated services. This could promote the national implementation of the rules on independent aggregators in the Electricity Directive 2019/944.

Whether or not to introduce a right for consumers to a second meter should in our view not be addressed at EU level, but should be at the discretion of Member States and subject to agreement with the system operator, market participants and end-customers. Customers who want a second meter should cover the costs themselves.

If sub-meters are used, they should be certified sub-meters and must be interoperable and the main meter should be the central point of measurement.

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
- [x] No

Do you have additional comments?

2000 character(s) maximum

In general, we believe that the ancillary services markets should be developed to meet the needs of the TSOs and DSOs. It is already possible to achieve lowered fuel consumption and reduced prices by active participation in the day ahead and intraday markets. Developing an additional ancillary service product to achieve lowered fuel consumption and reduced prices seems unnecessary and it is not apparent that it would contribute to increased flexible volumes in the market in total.

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
- (x) No

Do you have additional comments?

2000 character(s) maximum

We do not believe that demand response requirements that would apply in periods of crisis should be codified in European law. Emergency situations are often singular in nature and require tailored measures to address the situation in real-time.
Furthermore, developing market-based solutions to promote demand reduction can prevent these crisis situations before they occur and can spur further investment into flexibility assets. Articles 13, 15, and 17 of the Electricity Directive already address the rights of aggregation and demand response participation in the market. Before considering additional legislation, we feel the Commission should focus on ensuring the proper transposition, implementation, and enforcement of the existing Articles.
Only when all market-based solutions are explored and exhausted, requirements should be introduced.

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
- (x) No

Do you have additional comments?

2000 character(s) maximum

The prices in the DA-market deliver the appropriate signal, but more could be done to reduce barriers to demand response participation in existing markets. We recommend the Commission mandating Member States to remove these barriers by consulting with industry and aggregators on best practices and lessons learned. Member States should also ensure that current practices regarding demand response participation in the market are compliant with the regulatory framework for demand response by transposing and implementing the principles defined in Article 17 & 31 of the Electricity Directive.

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
- (x) 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

The short-term market strikes the most cost-efficient balance between supply and demand, and through this the need for more investment. It is a risk that Member State's interference through capacity mechanisms can increase the risk of over-investments in new production.

However, given that Member States introduce capacity mechanisms, the European legislative framework should ensure a harmonized design across the different national markets, where the mechanisms are open to participation of different types of storage, demand response and cross-border services and where equal treatment of new and old technologies is ensured. Capacity mechanisms should be designed in a way that distort the short term market and investment signals in the least possible extent. In our view, the design of these mechanisms should be subject to thorough investigation and analysis.

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
- [x] No

Do you have additional comments?

3000 character(s) maximum

In our view, the current Electricity Regulation (2019) will ensure sufficient location pricing if implemented correctly. Today there are example of structural congestion, and the ongoing Bidding Review Process is important and can point to possible solutions. In a zonal electricity system, correct locational signals require a coherent, objective and reliable determination of bidding zones via a transparent process. In order to ensure efficient operation and planning of the Union electricity network and to provide effective price signals for new generation capacity, demand response and transmission infrastructure, bidding zones should reflect structural congestion. In particular, cross-zonal capacity should not be reduced in order to resolve internal congestion.

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
- (selected) No

Do you have additional comments?

2000 character(s) maximum

The European Commission explains that this could enable families to share energy among the different members located in different parts of the country and farmers to install renewable generation on one part of their farm and use the energy in their main buildings even if located distance away.

We welcome efforts to enable consumers to become prosumers, but this must be done in a cost-efficient that does not increase the costs for other customers. It is unclear what it means that customers deduct their offsite generation, but we see challenges related to both reporting and balancing. It is also unclear what this proposal will mean for the grid tariffs paid by these consumers (which should reflect their actual consumption, unclear whether offsite generation should be deducted also in this regard). Offsite prosumption requires the use of the national electricity grid, and grid fees and other related costs must be taken into account and covered by the offsite generation project.

We note that the current regulation enables Member States to introduce this model, and are of the opinion that enabling countries to do this on a voluntary basis is still a sound approach.

If such a right were introduced:

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

- Yes
- (selected) No

Do you have additional comments?

2000 character(s) maximum

This model will for example enable citizens to become prosumers irrespective of the space they have available. The lack of space is particularly relevant for customers who want to become prosumers in big cities.

However, we fail to see that this will significantly affect the location of renewable generation. If a project is economically sound, and permits are available, the location will probably be used anyway.

(b) Should it be restricted to local areas?

- (selected) Yes
- No

If yes, why?

2000 character(s) maximum

If introduced, the offsite generation should be located as close as possible to the consumption point to reduce the strain on grid infrastructure and minimise the cost to the distribution or transmission grid.

Do you have additional comments?

2000 character(s) maximum

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

- Yes
- No (selected)

Do you have additional comments?

2000 character(s) maximum

As mentioned above, the offsite generation should be located as close as possible to the consumption point in order to reduce the strain on grid infrastructure and minimise the cost to the distribution or transmission grid.

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 (selected)

Do you have additional comments?

2000 character(s) maximum

Enabling the use of sub-meter data could make it easier for final customers to have a service provider independent of the ordinary supplier, in order to increase competition and facilitate access to aggregated services. This could promote the national implementation of the rules on independent aggregators in the Electricity Directive 2019/944.

Whether or not to introduce a right for consumers to a second meter should in our view not be addressed at EU level, but should be at the discretion of Member States and subject to agreement with the system operator, market participants and end-customers. Customers who want a second meter should cover the costs themselves.

If sub-meters are used, they should be certified sub-meters and must be interoperable and the main meter should be the central point of measurement.

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

We do not see the need for obligations as long as we have a well-functioning retail market, offering different products to meet different individual needs.

The right for a seller/supplier to choose the products offered is one of the basic characteristics of a free market. The supplier should not be forced to offer a certain type of product. The focus should be on ensuring competitive markets and good prerequisites for the retailer (e.g. liquid hedging possibilities). This ensures a customer driven product and service development. If such contracts are in demand, suppliers will provide them.

In Norway, we have about 100 retail companies with a variety of different products to benefit the customer with a lot of choices. Fixed price fixed terms contracts have been offered since the market was liberalized, but the households' demand for these contracts have been low (only around 5 % of households are on fixed price contracts). Retailers have however offered contracts to households for up to 3 years. The Norwegian Consumer Authoritiy and the Norwegian Consumer Agency have however warned Norwegian households against entering into fixed price fixed term contracts, particularly agreements of longer duration.

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

As short as possible

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

a) The electricity market directive (2019) already stipulates clarified provisions. We do not see the need for further clarification at European level.

b) Termination fees and hedging opportunities are crucial for suppliers to be able to offer fixed price contracts. Suppliers should be able to determine termination fees as part of their business model.

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 Clean Energy Package aimed at putting consumers at the heart of the energy transition, giving them more choice and greater protection. We encourage the full implementation of the package. The regulatory framework introduced in the CEP enables consumers to become active players in the market thanks to access to smart metres, price comparison tools, dynamic price contracts and citizens' energy communities. The new rules make it easier for individuals to produce, store or sell their own energy, and strengthen consumer rights with more transparency on bills, and greater choice flexibility. At the same time, energy poor and vulnerable consumers enjoy better protection. Full implementation in all Member States will provide consumers with protection and also a wide range of possibilities to engage in the market. However, the processes and customer rights related to insolvency of a supplier could be clarified.

The electricity market directive in the CEP is not implemented in Norway yet. Consumers' rights in relation to electricity are however already strong in Norway, and the regulation was updated 1st of November 2022. The enforcement is also strong. As an illustration some suppliers were fined by the regulator in 2022.

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

We don't see this problem in Norway. In Norway there is sound competition in the retail markets, with more than approximately 100 retailers providing a variety of products and no barriers to new market participants. Most Norwegian retailers are hedged back-to-back, and we have not had a problem with bankrupt suppliers. Hedging obligations would probably not change much for Norwegian retail companies or the competition in this market in Norway.

We understand, however, the need to investigate solutions to bankruptcy in the retail sector if this is a problem in other European countries. As a first step, we think it is important to enable retailers to efficiently hedge themselves via well-functioning forward markets. Furthermore, we are skeptical to introducing requirements and obligations on European level to sort problems that are of more local or national character.

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

- ○ Yes
- ● No

If not, why not?

2000 character(s) maximum

We are skeptical to introducing such requirements, but if they were introduced they should be differentiated according to what sort of product a company is offering.

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

Member States differ, and in in our view the responsibilities of a supplier of last resort do not have to be specified at EU level.

In Norway the DSOs are suppliers of last resort, but the NRA is looking into the solution and takes action so consumer can return back into the market. The DSOs are obliged to inform the customers and ask them to choose a supplier.

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

Emergency interventions should be developed to address the particular crisis, and they should be temporary, time-limited and proportionate.

The Norwegian Government established early a support scheme for households when the prices riced at the end of 2021. It has been a well functioning solution. In our view it should be up to the member states to decide how to support the households.

When designing these support mechanism it is important to still incentivize energy efficiengy and reduction of power consumption at peak times. This can for example be done by maintaining some exposure to short term price variation. In Norway we have a generous and well-designed support scheme for households: 90 % of the power price exceeding 70 euro/MWh is compensated by the state. That means that some incentives to reduce consumption in peak hours are preserved.

According to analyses carried out by the Norwegian regulator (NVE) power consumption in Norway has been reduced significantly since autumn 2021, when power prices started to increase. The overall power consumption in Norway in 2022 was 126 TWh, which is 5,5 TWh (or 4 %) lower than in 2021. While power consumption in the southern part of Norway (region most exposed to high power prices) was reduced by 6,5

TWh, power consumption in the central and northern part increased by 1 TWh. Also numbers that are corrected for variation in temperature suggest that households have reduced their consumption significantly in 2022, with a 14,1 % reduction compared to 2020 and 13,8 % reduction in 2021 in the southern part of Norway (region most exposed to high power prices).

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

We would welcome further clarifications and more information from ACER/National Regulatory Authorities (NRAs) to the market participants about interpretation of the regulation. This includes publication of threshold for inside information, more information about the enquiry proceedings and publication of more examples of case law/relevant cases for the market participants.

Further, we would welcome a more active dialogue between ACER and the Market Participants. One example is the introduction of public consultations prior to any guidance document to ensure that recent developments in the market are taken into consideration in the guidance.

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

Currently REMIT does not provide for an obligation of NRAs to publish their decisions (sanctions) on REMIT breaches. Transparency about such cases would help to better understand and comply with REMIT provisions. We would welcome the introduction of an obligation to publish sanctioned REMIT breaches with key points from the NRAs in English language that could be lessons learned for other Market Participants.

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

There needs to be Coordination between the Transparency Regulation and REMIT. The definition of inside information and the definition of information relating to the unavailability of transmission/generation /consumption assets should be aligned. This would provide much needed certainty to market participants on what to report (following the thresholds in transparency regulation).

The comprehensive reporting regime shall ensure regulatory conduct in the market and transparency. The regulations are not sufficiently specific on how Acer will contribute to transparency. Acer receives a rich information base. Based on the unique access to information, they should be required to publish up-to-date market information. Information that may be of use to marketplaces and individual players.

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