Contribution ID: ff22566b-97fc-4c6d-96d1-2feeb20f3458
Date: 13/02/2023 12:50:09

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

Fields marked with * are mandatory.

Electricity Market Design

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

EMD_Consultation_document.pdf

Introduction

Background

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

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

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

The EU Electricity Market Design

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

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

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

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

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

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

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

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

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

unaffordable bills for many consumers and companies.

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

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

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

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

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

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

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

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

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

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

Alternatives to Gas to Keep the Electricity System in Balance

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

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

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

Lessons Learned from Short Term Market Interventions

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

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

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

Better Consumer Empowerment and Protection

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

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

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

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

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

Stronger Protection against Market Manipulation

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

Next Steps

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

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

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

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

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

About you

* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
-

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

* I am giving my contribution as

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

* First name

Michael

* Surname

Villa

* Email (this won't be published)

michael.villa@smarten.eu

* Organisation name

255 character(s) maximum

smartEn, the European business association for decentralised and digital-driven energy solutions

* Organisation size

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

Transparency register number

255 character(s) maximum

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

569379418624-07

* 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.

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

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

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

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

To which category of stakeholder do you belong?

- [ ] a) National or local administration
- [ ] b) National regulator
- [ ] c) Transmission System Operator
- [ ] d) Distribution System Operator
- [ ] e) Market operator
- [ ] f) Energy company with generation assets
- [ ] g) Independent energy supplier with no generation assets
- [ ] h) Company conducting business in the energy sector no included in f) or g)
- [x] 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

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. **Fo r the purpose of transparency, the type of respondent (for example, 'business association, 'consumer association', 'EU citizen') country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.** Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

* **Contribution publication privacy settings**

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

- ○ **Anonymous**
  Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.
- ◉ **Public**
  Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

☑ I agree with the personal data protection provisions

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

Making Electricity Bills Independent of Short-Term Markets

Subtopic: Power Purchase Agreements (PPAs)

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

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

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

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

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

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

- (●) Yes
- ( ) No

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

2000 character(s) maximum

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
- [ ] 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
- [ ] d) Supporting the standardisation of contracts
- [x] 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

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

To increase the resilience of the energy system the solution is often only limited to investments in supply. Long-term investments in renewable generation are certainly required to balance divestments in fossil fuels, but mechanisms put in place to support renewables can have a significant impact on demand-side flexibility. In order to find the right balance between renewables and demand-side flexibility, renewable support schemes, from PPA to Contracts for Difference (CfD), need to be designed with accompanying measures to develop distributed flexibility to deal with the increased volatility and congestion caused. Otherwise grid infrastructures will be underutilized or end up in stranded assets due to overestimated System needs during high renewable and peak periods.
Mechanisms such as 24/7 certificates (i.e. Guarantees of Origin, GOs) where renewables are asked to commit to matching profiles of consumption can help the achievement of decarbonisation goals while not undermining flexible demand.
The revised EMD should ensure that renewable support schemes, including PPAs and CfDs, become responsible for balancing associated delivery through short term markets and procure alternative flexibility from the demand-side. This shall be achieved through the proper valorisation of the time-wise matching of supply and demand of green energy: renewable support schemes shall be backed by a 24/7 Guarantees of Origin mechanism to require real-time matching between flexible consumption and renewable electricity generation.

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

- ( ) Yes
- ( ) No

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

For an optimal deployment of PPAs, the following considerations must be carefully assessed:
- PPAs do not equal an automatic decoupling from fossil energy developments. If we look at the price development of PPAs, they follow the price fluctuations on the forward market (at least in Germany – but probably in other member states as well).
- PPAs are certainly a good solution for many cases, but they do not fit all roles in the market. For example, pooled electricity from active customers/prosumers (doing self-consumption) is not eligible for PPAs.
- Encouraging PPAs may draw liquidity/volumes from short term markets, weakening the price signal to final customers. As a consequence, implicit demand response as a reaction to high prices might reduce – leading to even higher (spot) prices that somehow must be covered.

Subtopic: Forward Markets

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

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

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

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

- ○ Yes
- ○ No

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

- ○ Yes

- [x] No

Do you have additional comments?

2000 character(s) maximum

Hedging products in forward markets or cost insurances should be established to ensure consumers are protected from extreme and sustained price spikes. These financial offers should be provided in particular to consumers opting for dynamic price contracts, to support their uptake while hedging extreme fluctuations. “Extreme and sustained price spikes” must be clearly defined to prevent the hedging scheme to undermine dynamic pricing contracts and any implicit, price-driven flexibility.

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

2000 character(s) maximum

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

- [ ] Yes
- [ ] No

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

- [ ] Yes
- [ ] No

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

Subtopic: Contracts for Difference (CfDs)

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

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

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

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

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

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

The impact would depend very much on the volumes and amounts, and also on how these are channeled back to consumers.

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

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

2000 character(s) maximum

It is important that CfD and similar arrangements are not limited to large scale, utility investments in renewables, located on a single site, that would keep the energy system very centralized.
If such schemes are fostered (not mandated), they should also:

- enable consumers, including members of a local energy community or of a collective self-consumption scheme, to opt for such arrangements to support the deployment of on-site and off-site renewable generation, notably to reduce stress to the low-voltage grid in light of the increase in electrical loads at the grid edge;
- provide investment certainty into flexibility solutions, such as demand response and energy storage. A “flexibility CfD” would provide a minimum revenue floor while capping revenues beyond a certain ceiling. Doing so, flexibility technology avoids unmitigated market exposure;
- avoid support to any kind of fossil technology.

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

2000 character(s) maximum

What technologies should be excluded and why?

2000 character(s) maximum

Energy storage requires to carefully design CfDs to give the right incentives to optimize against the markets in an efficient way. Energy storage should be excluded from those two-way CfD structures that are based on energy delivery in spot-markets, as this would reduce the incentive for storage to optimize against the widest wholesale market spreads, and/or simultaneously optimize against other market products such as ancillary service provision. If energy storage was covered in such two-way CfD structures, a non optimal dispatch of those assets in the market would occur. Instead, energy storage requires exposure to the full market volatility in order to provide the widest socio-economic benefit to the market.

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

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

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

CfD excess during high energy price peaks should be reused to create negative CfD incentives on consumer exposed to dynamic prices during these periods e.g. effectively bringing a subsidy of the KWh baseload volumes consumed for consumer facing energy poverty.

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

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

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

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	○	○	○	○	○

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

- ○ Yes
- ○ No

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

Subtopic: Accelerating the deployment of renewables

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

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

install solar energy in buildings.

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

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

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

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

---

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

- ○ Yes
- ○ No

Do you 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

Aligning the EMD revision with new provisions on the Energy Performance of Buildings Directive (EPBD) and the implementation of other rules set in the Clean Energy/Fit for 55 packages to foster the deployment of

small-scale renewables in buildings and local communities is crucial. Special attention should be given to the deployment of on-site renewables to mitigate peak loads resulting from the increase electrification of end-use sectors.

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

One of the main challenges that the electricity system should face due to the clean energy transition is related to locality: significant amounts of new load and electricity generation will be deployed in places where they were not previously present, notably at the edge of the system. If behind-the-meter assets are not managed at all, moving an existing house with a gas boiler and a thermal car into a new net-zero home environment would require to triple Grid connection on Low voltage from 6kw-10kw up to 18-24Kw. The EU energy system certainly needs to rely on smart and flexible grids to support an increasingly variable energy system connecting renewable supply and flexible demand, but the increase in electrification of end-use sectors risks leading to massive local congestions and overinvestments in distribution grid capacity if the use of deployed DERs is not optimized, notably through multiple initiatives to foster district self-balancing and maximize at local level the market-based activation of the flexibility potential of distributed assets. They will relieve pressure from the grid, as well as enable a more potent flexibility sourcing.
Investments in network infrastructure upgrade are required, but the implementation of the Energy Efficiency First Principle should be ensured: as calculated by smartEn and DNV in 2022, €11.1 - €29.1 bn can be saved annually in distribution grid investments if the flexibility of connected assets at the demand-side is activated. This is possible if DSOs are allowed to procure flexibility services from the market and can choose between two models for local network access (or a hybrid of them):

- ‘Capacity buy-back’ (or firm access): DSOs over-assign firm network capacity in the long term and then have to buy it back to manage flows on a dynamic basis close to real time. In this model the DSO is the primary buyer of local flexibility. DERs may need to be aggregated in dynamic ways which respect the locations of potential network constraints;
- ‘Capacity cap’ (or non- firm) access: DSOs restrict the allocation of firm capacity and limit some users’ capacity rights (possibly only on some time slots), but enable connected parties to re-trade their firm capacity rights or flexibility obligations. The model must enable consumers to exercise choice over time (including opting in for firm access at a later date). This model is currently developed in Amsterdam for grid connection of EVs: the local DSO assigns a global minimal firm capacity for EV charging and the CPO trades the non-firm needs between chargers it operates.

In this way, DSOs cannot refuse (or postpone) connection of flexible resources to their grid and would give them enough alternatives to investment in network infrastructure and manage it smartly.

In this context, late connection or non-connection of new assets could be sanctioned, directly or through economic regulation of SOs (tariffs).

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

(b) its impact on decarbonisation

(c) security of supply

(d) investment signals

(e) legitimate expectations/legal risks

(f) fossil fuel consumption

(g) cross border trade intra and extra EU

(h) distortion of competition in the markets

(i) implementation challenges

Do you have additional comments?

3000 character(s) maximum

The focus must be on phasing out gas from the merit order, thanks to demand response, flexibility resources and clean generation, instead of addressing the consequences of expensive gas setting the marginal price. With less hours where gas generation is marginal, the inframarginal rents will be reduced.

If not well-designed, revenue caps can virtually become price caps, distorting the merit order, disrupting the price signal and endangering security of supply. It is fundamental that price signals are left intact, to strengthen investment incentives.

Also, if such a scheme is deployed, it must be assessed to which markets it should apply, and flexibility markets should be excluded as such limitations may impact the will of DERs to participate, leading to less liquidity and resources at SO' disposal to procure.

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

- Member States
- EU

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

Demand-side flexibility is the best way to fight high prices, reduce marginal price and thus reduce inframarginal rent.

In this light, any kind of subsidy to consumers, whether it is from a redistribution of inframarginal revenues or other types of State aid, should not aim to ad-hoc reductions of energy bills (unless limited to vulnerable consumers), but it should stimulate consumers to improve their efficiency, flexibility and elasticity of demand.

If such resources are available, they should be invested to:

- support deployment of efficient and flexible assets, notably heat pumps, smart and bidirectional EV

chargers, home batteries, PVs and EMS capable to interact with the energy system. Such capacity remunerations could be focused on energy vulnerable households and companies in specific needs;
- train installers for an accelerated and optimal roll-out of smart energy assets.

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

The wholesale electricity markets' price formation mechanism is based on marginal pricing, ensuring the cheapest generation capacities are always activated first, and so, demand is always met at the lowest possible cost.

The existing marginal energy price formation should be defended as the most effective way of price formation in open markets as it provides necessary dispatch and investment signals for all assets and services. The current political debates on the price formation are a threat to the value that flexible assets can earn; and any watering down of marginal prices would be detrimental to investment in demand-side flexibility, which is a natural hedge against price volatility.

In addition, as DSO's local flexibility markets become more widely implemented and activated volumes increase, it is important to share liquidity between local and zonal wholesale markets, by coordinating or linking these. Such coordination will also bring further liquidity to zonal wholesale markets, as the local market may act as a "super aggregator", forwarding bids from distributed resources to zonal wholesale markets. Distributed resources participating in all markets would enhance the efficiency of dispatch.

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

3000 character(s) maximum

At the moment the expected impact of such schemes, including the new ETS scheme applied to heating and transport sectors, is to put a price to the carbon content of energy carriers. This would indirectly stimulate the deployment of efficient and flexible technologies that would consume clean energy, to allow consumers to reduce their energy costs.

It is important that any kind of carbon pricing scheme would incentivize the development of decentralized energy resources if the carbon footprint of end-use sectors is measured in actual performance terms, notably with the metric kgCO2/time/m².
The value of actual, operational and quantitative measurements for both the
carbon and flexibility performance of end-use sectors would allow:
• Increased awareness for building owners, developers, architects, and energy managers;
• Valuable (individual and/or aggregated) information to relevant stakeholders i.e., system operators and service providers on a distributed resource that could be activated;
• Accurate tracking of progress in building/industry renovations;
• Linking of financial incentives with increased actual performance.

To do that it is crucial to:

- Ensure alignment between EED and EPBD revisions and EMD improvement, to move towards an actual performance quantification of end-use sectors, notably buildings;
- Promote in the EMD revision Guarantees of Origin 24/7 to avoid any greenwashing and track the carbon intensity of energy consumed by end-users, notably in a flexible way to avoid consumption when grey energy is supplied;
- Ensure alignment between the EMD revision and RED III to ensure System Operators (both TSO and DSO) share in a transparent way data on both their carbon intensity and network congestions.

In addition, marginal price in balancing and intra-day markets should take into account the carbon savings of resources activated implicitly favoring resources having the lowest impact to the environment. Crucial is to keep a CO2 price at a level to provide sufficient certainty to allow investment in decarbonization.

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 time granularity of electricity markets should be enhanced through shorter settlement intervals and later gate closure to enable service providers to retain operational control over their assets as late as possible until delivery time. This is already happening in markets with high renewable penetration (e.g. 5 minutes settlement intervals in Australia) to enable renewable participants to adapt to changing forecasts within the market rather than relying on TSO balancing. This is also in line with some recent developments in Europe: while in 2020 derogations and exceptions for reducing the imbalance settlement period to at least 15 minutes have been granted in almost all countries, the situation is changing in Germany, Finland, Portugal, Poland, Romania and Slovenia where such a timeframe is being used in the day-ahead and intra-day markets.

For shorter time granularity to happen, metering devices should be reconfigured in such a way that does not restrict an eventual move to shorter settlement intervals (e.g., by allowing the settlement interval to be a firmware upgrade rather than requiring hardware replacement).

Grid operators should accelerate their back end digital transformation to support such settlements, while regulators should allow the reuse of aggregators shadow settlement calculation in case Grid operators are late delivering such migrations.

Another aspect to take into account is that as ID gate closure approaches real time, sequential organization of traditional wholesale markets and of local flexibility markets become less realistic. Therefore, such measures should be accompanied by coordinating of zonal and local markets, enabling the same assets to compete in different markets in parallel, and thus pooling liquidity.

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

Decentralised energy resources can offer a multitude of flexibility services and should be enabled to stack value through the activation of their flexibility in different cascading markets, from flexibility markets to solve DSO congestions to balancing and ancillary services for TSOs to wholesale markets.
Some of these services can be complementary (e.g., demand reduction can help solve both transmission and distribution congestion), while others may be competing. However, it is crucial to enable the use of DERs for all services and not limit to a single functionality (e.g. spot markets), but enable a multitude of offers (e.g. DSOs' procurement through local flexibility markets should not be detrimental to the participation of the same assets to wholesale markets). Increasing the options for value stacking through sharing liquidity between markets would facilitate the surfacing of "hidden" flexibilities, i.e., demand-side flexibility in buildings that will only be available once a business case exists for suppliers or independent aggregators to exploit it (and engage with the consumer). The success of such a case can be observed in the Norflex project in Norway, which after a few years of operation has seen a very significant growth in electric vehicle participation providing flexibility. This is in part due to the coordination between DSO and TSO markets.

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

- ( ) Yes
- (●) No

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

2000 character(s) maximum

Electricity markets should not foresee a mandatory participation of some types of assets as it would undermine the level playing field among (supply and demand) resources. On the contrary, it should mandate the participation of all resources, notably eliminating existing barriers to demand-side resources (e.g. high min bid size, no right for aggregators to bid, product design not compatible with features of distributed resources). At the moment demand-side resources cannot participate in several electricity markets, including day-ahead markets, and there is barely no improvement since the implementation of the 2019 EMD provisions.

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

In principle markets should be technology neutral. In practice, we still see an overwhelming participation of traditional generation participating in different markets and strong limits to demand-side resources. Including technology-based information and carbon intensity in the bids would allow more accurate monitoring of the

markets and would help in the analysis and reporting from system operators. This would be very useful to facilitate the use of the best solutions to achieve the EU's decarbonisation targets.

Locational tags need to be carefully assessed in order not to disrupt the price signal, reduce transparency and hamper well-functioning of markets.
In light of an interoperable system, locational information might facilitate coordination of zonal wholesale and local flexibility markets by DSOs, enabling pooling of liquidity.
However, locationally tagged bids might be technically and not easy to implement.

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

- Market design should allow all DER to bid, including those that do not exist yet, that do not have a grid connection or that are not flexible yet.
Would-be prosumers will not invest in DER flexibility if they do not have beforehand visibility on the monetization of their flexible capabilities. Eliminating existing barriers to demand-side resources (e.g. high min bid size, no right for aggregators to bid, product design not compatible with features of distributed resources) must be a top priority. At the moment demand-side resources cannot participate in several electricity markets, and there is barely no improvement since the implementation of the 2019 EMD provisions.

- With regard to energy storage and V2G, the main obstacle is the multiple taxation of energy, when taxes and levies are applied upon generation, upon charge of the battery, upon discharge of the battery and upon consumption elsewhere by the end-consumer. If this barrier is not fully removed, it will be a fee on every transaction (charge/discharge) and storage and V2G will not participate in the markets. This was already addressed by the Commission's proposal for the revised Energy Taxation Directive, but the stalemate at Council level might keep this barrier. We recommend advancing through the EMD revision for this specific electricity taxation issue.

- The information exchange model between SO and flexibility resources is key to providing an effective provision of flexibility. Interoperable information exchange platforms are crucial to remove any technological barriers.

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

- (•) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

The energy system must be fit for the expected increase in decentralised and variable renewable production. Congestion might increasingly become an issue for the EU energy network. Therefore, local flexibility markets for market-based congestion management are a mandatory, cost-efficient complement to the necessary, but costly grid expansion. They make best use of system flexibility and increasing demand-side flexibility.

A stronger role of OPEX in the SO's renumeration is one of the essential levers to accelerate the energy transition towards decentralization and flexibility.

Between €11.1 - €29.1 bn can be saved annually in DSO investments if demand-side flexibility is procured at low-voltage level, as calculated by smartEn and DNV in 2022. For that purpose, smartEn developed a Common Reference Model for DSOs' procurement on key features of local flexibility markets and support their development across Europe. NRAs should ensure that the SO's remuneration is incentivizing OPEX investments, as already foreseen by the 2019 EMD, and a quantified measurement of such progress should be included in Smart Grid Indicators. Including OPEX requirements for investment decisions would incentivise system operators to use demand-side management to avoid installing unnecessary new capacity, as focusing on CAPEX encourages SO to develop only new infrastructure: in light with the EE1st principle, it should be mandatory for SOs to consider use of flexibility before deciding to build more grid.

In case of congestion limiting the injection of RES in a part of the grid, a local energy markets could allow consumers in the same area to turn up their consumption and buy the excessive RES energy at an agreed price (probably below general market price), as an alternative to restricting the injection.

In addition, network operators must ensure network transparency and publish non-sensitive data in a machine-readable format.

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

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

A fair use of sub-metering systems, independently from the roll-out of smart-meters, is crucial. Sub-meters should be described as "A metering function which is certified and can be embedded in behind the meter DERs, and which produces data which can be used by consumers and market parties in their processes, as well as by system operators in their regulated system operations processes". Metering arrangements must permit sub-metering for individual applications to permit different types of participation for different types of assets.
Data from certified sub-meters and/or smart meters should be used by the supplier or aggregator to calculate the consumer's baseline. An ex-post verification of delivery shall be performed by comparing actual consumption to the baseline to attest activation. Quality assurance for verification of (sub)meters data at pool level should be allowed too. The baseline methodology proposed by market parties should be approved by the NRA and measurements can be independently audited..

To enhance the uptake and optimal use of certified sub-meters, the following conditions should be met:
• Simpler type-approval: Certification of device integrated meters shall be possible without the necessity to certify the entire device as a meter, which is the case today in same cases. Lab-tested standards certifying a sufficient level of accuracy shall be sufficient to type-approve accuracy for the products.
• One solution fits all: Any type-approval solution must instantly ready for use for all flexibility services by

all Member states. Stricter national requirements than a common European solution that create trade barriers should be avoided.

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

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

The market-based activation of demand-side flexibility through a fit-for-purpose ancillary service set up by TSOs is already one of the possible methods to implement the current obligation to reduce demand by 5% in peak hours between December 2022 and March 2023. National Grid in the UK launched this scheme in 2022 and a replication across Europe should be encouraged as some Member States like Germany have just ignored this obligation, not limited to the current crisis. We welcome the requirement to make this kind of product, be it as part of the ancillary services, or in any other configuration, a structural, permanent product that could be set up by both TSOs and DSOs. It should ensure participation of aggregators and the minimum bid size should be 100 kW or lower. Both availability and activation payments should be allowed. The activation time should allow all end-use sectors to contribute (i.e. an excessively long activation requirement, for example 3 hours as required by Red Electrica in Spain for this ancillary services, would limit the participation to large industrial players and de facto exclude residential buildings and small commercial buildings if the TSO do not allow the group of assets to change its composition over time).

To quantify and measure progress on the activated MWh of flexible demand, this ancillary service should be framed around the implementation of a national target to activate demand-side flexibility.

In addition to peak-shifting, programmes and targets for overall peak load reduction should also be considered. This could be a requirement for balance responsible parties as a percentage reduction of their perimeter's peak loads, to be implemented through demand-side flexibility programmes.

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

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

Temporary crisis frameworks are unable to attract the necessary investments into demand response (communication, aggregation, metering) because consumers cannot expect lasting returns. The activation of demand response should not be limited to periods of crisis. It should be a constant enabling pillar of a cost-effective transition to climate neutrality, with consumers onboard. On top of this regular activation of demand response, demand response requirements that would apply in periods of crisis should be contemplated, provided they are market-based and do not limit the participation of flexible resources to other implicit and

explicit schemes in normal periods.

Capacity remunerations for demand response are an option for this purpose.

Procuring long-term commitments in the form of critical peak pricing auctions in case of severe grid emergency situations should be performed in the moment of capacity planning (as opposed to the moment of operational dispatch) when DSO/TSOs define the crucial days and/or hours and auction for flexibility during those periods. Such emergency capacity remuneration mechanism for peak reductions, that would reveal the value of distributed flexibility in critical peak pricing, should be additional (not in place of) capacity remuneration mechanisms, and would have the advantage that the volume procured is visible and can fully be taken into consideration by System Operators in their calculations.

The achievement of these quantified volumes of procured peak reductions should be monitored and added to the Transparency Regulation mandating Grid operators to transparently publish flexible capacity and energy volumes through the ENTSO-E transparency platform.

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

- (●) Yes
- ( ) No

If so, what would that be?

2000 character(s) maximum

The European Commission should propose the introduction of a national target to activate demand-side flexibility as a permanent, structural obligation of the new market design. As stressed before, this would be helpful to quantify and track progress on the amount of MWh activated from all flexible end-use sectors. This will stimulate the implementation of specific policies and would incentivize demand response, energy storage (including from EVs) and distributed renewable generation.

In addition, two measures not addressed in this consultation could enhance the development and activation of decentralised energy resources:

• Scarcity pricing – for example applied to balancing prices based on the system generation margin – should be introduced to reflect the market value of scarcity and enhance the value of flexibility in wholesale markets. There are examples of scarcity price arrangements in ERCOT, as well as the GB imbalance pricing and Irish electricity markets.

• To accelerate the development of harmonised products for system services, Flexibility Registers should be developed at national level based on a set of rules harmonised at EU level, adaptable to accommodate future types of flexibility which have not yet been defined. The register should be open-ended and, to facilitate mobility and automated registration, a single registration point should be set up at each Member State and once registered it should automatically be registered for other Member States in line with the reciprocity principle.

• A peak load reduction target should also be considered. This could be a requirement for supplier as a percentage reduction of their peak loads, to be implemented through demand-side flexibility programmes. This programme could be executed with the help of tradable demand reduction certificates procured from flexibility providers certifying activation at peak times.

Do you have additional comments?

2000 character(s) maximum

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

- ○ Yes
- ◉ No

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

4000 character(s) maximum

As outlined in 2021 smartEn Map on Resource Adequacy Mechanisms, very few CRMs are actually open to demand-side resources: their current setup do not respond to the investment needs as regards firm capacity of demand-side solutions.

To complement existing EMD provisions on equal treatment of resources in CRMs, it is crucial to ensure that:

- the derating factors and (separately) the procurement process fully values DER and do not tilt the procurement towards conventional types of resource (e.g. by requiring patterns of delivery or availability which are not achievable by DERs and which are not justified by system needs). The derating factors have to fully reflect the value of the different types of resources, and not discriminate against demand-side providers;
- all associated system adequacy calculation (RAAs) and Value of Loss load modelling properly consider the rapid development of renewable/community self-consumption schemes which require to rethinking traditional load modelling and scenario analysis bottom-up taking into account prosumer deployment models per sectors. TYNDP and MAFS calculations should be improved to properly model this in full transparency and through consensus buildings with stakeholder joined scenario building.

Targeted CRMs should be also contemplated, as interruptability schemes, open to all DERs. For these schemes to support the clean energy transition, the amount of market-based contracted demand for availability payments should be proportional to the estimated curtailment of RES, which would be avoided thanks to an activation of flexible demand. The estimation of curtailed RES should be based on RAAs.

This evolution would ensure that CRMs evolve from mechanisms to support peak demand to market-based schemes to support matching the rapid variations of renewable generation and consumption that are expected in a decarbonised system. They should recognise the value of low carbon, distributed flexibility in supporting system flexibility needs.

Do you have additional comments?

4000 character(s) maximum

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

- (●) Yes
- ( ) No

Do you have additional comments?

3000 character(s) maximum

Although it might be beneficial in the long-term to shift to more granular locational pricing, in the short-term smartEn recommends looking for locational signals elsewhere, notably district self-balancing initiatives. This is a less politically sensitive evolution that would avoid deadlocks.

Thanks to a multitude of business models (beyond local energy communities or DSOs' local flexibility markets), self-optimisation of local districts would solve congestion challenges, avoid costly grid reinforcements caused by new decentralised electrical loads and generation, and protect consumers from extreme price volatility while increasing SoS/resilience.

To allow this development, the revised EMD should:
- Allow the commercial development of all district self-balancing initiatives, for both establishment and management by third parties, in parallel to the non-commercial Citizens Energy Communities;
- Introduce the concepts/definitions for "district self-balancing" and "energy sharing" that allow a local DER optimisation behind the sub-station (BTSS) through multiple initiatives;
- Enable the use of DERs for all services and not limit to a single (local) functionality, as they could provide a multitude of offers (i.e. Local flexibility markets should not be antithetic to Energy Communities or the participation of the same assets to wholesale markets);
- Avoid SOs gain privileged exercise control over connected assets or associated data, but instead permit assets to be used for different services to support efficient dispatch and revenue stacking. This would strengthen the principle of SOs as neutral market facilitators and ensure DER participation is based upon choice for customers, not obligation;
- Require full data transparency on network congestions to avoid over-building networks or under-allocating network capacity;
- Ensure SOs offer a connection to all customers while allowing DSOs to choose between firm and non-firm models for local network access (or a hybrid of them).

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

---

Energy sharing and demand response

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

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

If offsite generation is renewable and used for (collective) self-consumption, customers that own, rent, share or lease these generation assets could be allowed to deduct it from their metered consumption and billed energy on the condition that:

- The energy sharing mechanism that enables collective self-consumption and local trading more broadly avoids any greenwashing and allows an effective and proven consumption of the renewable electricity installed offsite;
- Members of the collective self-consumption and other types of local trading are incentivized to flexibly consume and store offsite renewable electricity to avoid overinvestments in unnecessary generation assets and grid reinforcements;
- Also energy that is stored by customers (via behind the meter energy storage facilities and/or EVs) is allowed to benefit from this deduction. This implies that production and consumption do not necessarily need to happen at the same market time unit in collective self-consumption schemes;
- Participation in collective self-consumption and other types of local trading schemes is open to all consumers, from households to large energy intensive industries.

If such a right were introduced:

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

- (●) Yes
- ( ) No

Do you have additional comments?

2000 character(s) maximum

Yes it will affect the location of new investments in renewable generation and energy storage to enable a more participatory, decentralised and consumer-centric clean energy transition.

(b) Should it be restricted to local areas?

- (●) Yes
- ( ) No

If yes, why?

2000 character(s) maximum

In light of a district self-balancing approach leading to an optimized use of distributed energy resources behind the sub-station (BTSS), collective self-consumption schemes should be restricted to local areas.

Significant amounts of new load and electricity generation will be deployed in places where they were not previously present, notably at the edge of the system. The increase in electrification of end-use sectors risks leading to massive local congestions and overinvestments in distribution grid capacity if the use of deployed DERs is not optimized. As calculated by smartEn and DNV in 2022, the activation of decentralised energy resources would lead to €11.1 - €29.1 bn savings annually in distribution grid investments.

Do you have additional comments?

2000 character(s) maximum

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

- ○ Yes
- ○ No

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

- ◉ Yes
- ○ No

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

2000 character(s) maximum

It is important that all consumers have an installed smart meter to participate to price-driven flexibility schemes e.g. dynamic price contracts. But it is crucial to avoid the unnecessary over deployment of smart meters by utilities and/or system operators: it is not always necessary to install physical smart meters for each DER behind the connection point, but instead rely on submetering IoT data embedded in DERs. Business models relying on AI already allow to measure and distinguish the generation and demand patterns of assets behind the meter and new DER edge computing capability allow the automatic notification and bidding of some DER into flexibility markets (hence avoid inaccurate baseline methods).

Hence, crucial is to allow the deployment and use of sub-metering systems, notably by market parties. Sub-meters should be described as “A metering function which is certified and can be embedded in behind the meter DERs, and which produces data which can be used by consumers and market parties in their processes, as well as by system operators in their regulated system operations processes”. Metering arrangements must permit sub-metering for individual applications to distinguish the electricity consumed or produced by different devices and permit different types of participation for different types of assets. Both smart meters and sub-meters should be allowed to provide data for suppliers and aggregators to define the consumer’s baseline and ex-post verification, as explained in a previous reply.

Do you have additional comments?

2000 character(s) maximum

Offers and contracts

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

- ○ Yes
- ◉ No

Do you have additional comments?

2000 character(s) maximum

Efforts should be focused to incentivize suppliers to offer dynamic price contracts or Time-of-Use tariffs, not fixed price ones, otherwise consumers would not have an (implicit) opportunity to adapt their consumption. This approach would not be aligned with the consumer-centric market design initiated with the 2019 Electricity Directive and Regulation. Promoting fix term contracts would be a step back to the active participation of consumers.

Consumers should be allowed to opt for dynamic price contracts and should be eventually protected from extreme price fluctuations through hedging or insurance products offered in combination with dynamic price contracts or propose compound flat and dynamic tariffs on sub-metered DERs. Reliability options, which hedge consumers from extreme price fluctuations, are an option that could be offered to consumers along with dynamic price contracts.

It should be also stress that in high risk times, as we have now, fixed price contracts are shaped in this higher risk and “hedge” guarantees leading to higher, not lower prices: spot prices are far lower than the hedged prices at the moment so perversely consumers are greatly disadvantaged. The risk consumers are currently having to accept is that they are paying higher prices for longer.

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

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

- ○ Yes
- ○ No

Prudential supplier obligations

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

- ○ Yes
- ○ No

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

- ○ Yes
- ○ No

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

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

Among the emergency measures introduced in 2022, the revival and extension of regulated tariffs blurring signals to consumers is in contradiction with the consumer-centric approach introduced by the electricity market design in 2019. Suppliers should be required to offer at least one option for a dynamic price contract and consumers should be allowed to choose and opt for dynamic price contracts to react (automatically) to price signals as a whole or with specific assets.

Eliminating the possibility for some consumers, e.g. energy vulnerable consumers, to opt for dynamic price contracts would be a political decision that some consumers cannot participate actively in the clean energy transition and would blur the signals that would allow them to act in a smart and efficient way.

Consumers of all types should be eventually protected from extreme price fluctuations through hedging or insurance products offered in combination with dynamic price contracts. Reliability options, which hedge consumers from extreme price fluctuations, are an option that could be offered to consumers along with dynamic price contracts.

To conclude, consumers should have the possibility to participate through either type of scheme (implicit and explicit), and automation should ease their interaction with the system to facilitate the activation of their flexibility. A silo-approach opposing implicit and explicit flexibility should be avoided.

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

The scope of application of the REMIT framework should be expanded to cover also local flexibility markets for local SO services to create trust in the market-based procurement of flexible resources at low-voltage level. An extension of the REMIT scope should include all kinds of flexibility products, and not be limited to capacity and energy products.
Concerns about inc-dec gaming are often considered as an obstacle to the setup of local flexibility markets. REMIT framework would contribute to enhance local market functioning and will protect effectively against attempts of market manipulation, limiting the possibility of choosing non-market based flexibility.

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

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

Here you can upload additional information, if you wish to do so

Only files of the type pdf,txt,doc,docx,odt,rtf are allowed

af19152a-d473-47da-8fbe-f7f954d71ea7/FINAL_Joint_letter_EMD_recommendations_DSF.pdf
2d4ae013-3b9d-4713-b0e5-ba416505df30/FINAL_smartEn_EMD_PositionPaper.pdf

Contact

ENER-MARKET-DESIGN@ec.europa.eu