Contribution ID: 0c59a6d7-ef3e-408b-a6bd-333b9a07773f

Date: 31/01/2024 08:48:14

Public consultation on prioritising the removal of barriers to electricity demand response

Fields marked with * are mandatory.

Introduction

Objective

This consultation aims at gathering stakeholders' views regarding the findings of ACER's 2023 Market Monitoring Report on demand response and other distributed energy resources and the barriers that are holding them back a nd on barriers currently present to the market-based provision of flexibility[1] to the power system also from other, non-distributed energy resources.

Based on the findings of the report and the input gathered from stakeholders, ACER will focus its 2024 market monitoring work on demand response and flexibility on the most relevant barriers.

[1] ACER's 2023 Market Monitoring Report on demand response and other distributed energy resources and the barriers that are holding them back refers to flexibility as the ability of energy resources and consumers to change or adjust their injection to or withdrawal from the electricity system in response to prices (if active on day-ahead and intraday markets) or to provide services to system operators (SOs), i.e., balancing services for Transmission System Operators (TSOs) and congestion management or voltage control to TSOs and Distribution System Operators (DSOs).

Target group

This consultation is addressed to all interested stakeholders, including market participants, regulatory authorities, nominated electricity market operators, and transmission system operators.

Contact and deadline

The contact point for this consultation is: ewpmm@acer.europa.eu.

All interested stakeholders are invited to submit their comments by 2 February 2024, 23:59 hrs (CET).

General terms of the consultation

ı	Finnish Energy
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All EU

	Austria
	Belgium
	Bulgaria
	Croatia
	Cyprus
	Czechia
	Denmark
	Estonia
V	Finland
	France
	Germany
	Greece
	Hungary
	Ireland
	Italy
	Latvia
	Lithuania
	Luxemburg
	Malta
	Netherlands
	Norway
	Poland
	Portugal
	Romania
	Slovak Republic
	Slovenia
	Spain
	Sweden
* Activity	
	Trader (or association)
V	Energy supplier (or association)
	Aggregator (or association)
	Generator (or association)
	Utility (or association)
	End-user (or association)
	Market operator (or association)
V	Transmission network operator (or association)
V	Distribution network operator (or association)
	Regulatory authority Other (aleges are sife)
	Other (please specify)

Article 7(4) of ACER Rules of Procedure (RoP) requires the submitting party in an ACER Public Consultation to indicate explicitly whether the submission contains confidential information and to claim any confidentiality in accordance with Article 9 of the RoP.

* Does your submission into this consultation contain confidential information?

Yes

No

Publication of responses and privacy

ACER will publish all non-confidential responses, including the names of the respondents, unless they should be considered as confidential, and it will process personal data of the respondents in accordance with Regulation (EU) 2018/1725 of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, taking into account that this processing is necessary for performing ACER's consultation task. For more details on how the contributions and the personal data of the respondents will be dealt with, please see ACER's Consultations and the specific privacy statement attached to this consultation.

Please confirm that you have read the <u>Data Protection Notice</u>.

Feedback on ACER's 2023 Market Monitoring Report on demand response and other distributed energy resources and the barriers that are holding them back

ACER's report targets seven subject areas (overall barriers) and examines several underlying indicators across EU-27 Member States and Norway, to assess the persistence of barriers that hinder the participation of distributed energy resources (including demand response, energy storage and distributed generation) to wholesale electricity markets and the provision of balancing and congestion management services.

The report focuses on regulatory barriers, mainly related with the lack of implementation of certain provisions of the Clean Energy Package and relevant EU Guidelines that are crucial to bring more flexibility from distributed energy resources into the wholesale electricity markets and system operation services, and on barriers related to market design and market structure. Financial, economic, technical, and behavioural barriers are out of the scope of this report.

In addition, chapter 10 of ACER's report briefly explains how some relevant barriers to market integration and additional regulatory obstacles may negatively impact the entry and participation of distributed energy resources and other new actors in electricity wholesale markets and SO services.

Moreover, chapter 11 discusses network tariffs as both potential 'facilitators' and 'barriers' to active customers and providing demand response, focusing on network tariff design elements relevant for active customers and/or consumers providing demand response and exploring the current situation across EU-27 Member States and Norway with respect to these elements.

Finally, chapter 12 of the report presents key findings per barrier monitored in 2022 and ACER's summary list of recommendations to overcome each obstacle identified.

- 1. Based on your own experience and considering the information contained in ACER's report, please rank the following barriers included in the report by order of <u>relevance</u> and <u>required effort to overcome</u>, on a scale between 1 and 7.
 - It is assumed that your answers refer to the country/countries you are active in, unless indicated differently in the comment box below.
 - Leave blank if not applicable, for example if the respective mechanism does not exist in the respective country, if you consider the barrier to be irrelevant, or if no opinion.
- 1.1. Ranking of overall barriers included in Chapters 3 to 9 of ACER's report by order of relevance.

A score of 7 corresponds to the highest relevance. Each score may be assigned only once.

	1	2	3	4	5	6	7
Lack of a proper legal framework to allow market access	0	0	0	0	0	0	0
Unavailability or lack of incentives to provide flexibility	0	0	0	0	0	0	0
Restrictive requirements to providing balancing services	0	0	0	0	•	0	©
Restrictive requirements to providing congestion management services	0	0	0	©	0	•	©
Restrictive requirements to participating in capacity mechanisms and interruptibility schemes	0	0	0	0	0	0	0
Limited competitive pressure in the retail market	0	0	0	0	0	0	0
Retail price interventions	0	0	0	0	0	0	•

1.1.1. Please explain your answers with reference to the underlying indicators included in the report and/or to other factors you consider relevant for each overall barrier.

We assume that "relevance" refers to the current significance of the obstacle mentioned in the Member State for which we are active in (In our case Finland). Answering is complicated by the fact that many of the issues mentioned in the report as obstacles in Finland have already been removed. Some of the answers in the report are therefore outdated or incorrect. The picture of Finland presented in the report does not correspond to our understanding of the current situation, so we consider this ranking to be irrelevant. In Finland, for example, incentives for flexibility are already in place (smart metering and dynamic pricing), but we see that it is very important to remove these barriers elsewhere throughout Europe. Similarly, in Finland, for example, the primary legal framework has already been adopted and secondary legislation is being prepared.

According to the report, in Finland, for example, DSO could own charging infrastructure, active customers are not defined, and legislation on aggregation or communities is not implemented. These are all wrong, for example, communities and a group of active customers have entered legislation many years ago, in 2020.

When we have asked Finnish market parties (our members) about the obstacles to demand response, the

challenges have mainly been perceived as commercial, typical challenges related to the start-up of new business, and regulatory changes are not primarily needed to solve them.

Customers have uncertainties and misconceptions about flexibility. Customers do not consider the investments needed to implement flexibility (e.g. control automation) to be economically viable. Customers may not understand the value of flexibility or their ability to be active in the market. In the past, the price of electricity was fairly flat, and there were no major price peaks. Because of this, the investments on flexibility were deemed unprofitable. In this respect, the situation has changed and is changing.

Many of the energy company's new flexibility services are still in the experimental phase, when providing them still requires manual work. The internal IT-systems do not yet support an efficient operating model. This reduces cost-effectiveness.

Instead of regulatory changes, it was felt that investments were needed in the sales and marketing of new services, with a clearer emphasis on the benefits received by the customer. Companies also need new kinds of expertise and resources, as well as strong development of IT-systems. Energy companies need new kinds of expertise in areas such as product development, sales and marketing, as well as the acquisition and development of a partner network.

With regard to regulation, it is hoped that it will enable innovation, i.e. legislation must be market-based and create a neutral marketplace. Long-term and market-based regulation is needed.

In conclusion, the most relevant barriers are financial and profitability-related. Typical barriers to the introduction of a new product on the market. They have now been excluded from this report, which makes it difficult to respond. Therefore, in these rankings, e.g. positions 5 to 7 are in fact by no means the most relevant obstacles and may even be very minor obstacles.

We would also like to stress that the report should avoid the impression that the customer's electricity supplier cannot be an aggregator and bring their customers' flexibility to the market. When we talk about aggregation, we need to be non-discriminatory and not just talk about new market players. After all, the retailer acts as an aggressor for its own customer base in both the DA and ID markets.

1.2. Ranking of overall barriers included in Chapters 3 to 9 of ACER's report by order of <u>required effort to overcome.</u>

A score of 7 corresponds to the highest required effort. Each score may be assigned only once.

sole of 7 corresponds to the highest required effort. Each score may be as		, 0					
	1	2	3	4	5	6	7
Lack of a proper legal framework to allow market access	0	0	0	0	0	0	0
Unavailability or lack of incentives to provide flexibility	0	0	0	0	0	0	0
Restrictive requirements to providing balancing services	0	0	0	0	0	0	0
Restrictive requirements to providing congestion management services	0	0	0	0	0	0	0
Restrictive requirements to participating in capacity mechanisms and interruptibility schemes	0	0	0	0	0	0	0
Limited competitive pressure in the retail market	0	0	0	0	0	0	0

Retail price interventions	0	0	0	0	0	0	0
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1.2.1. Please explain your answers with reference to the underlying indicators included in the report and/or to other factors you consider relevant for each overall barrier.

Required effort to overcome barriers depends on whether they are legal or business barriers. Legislative obstacles require political will and legislative changes take time, but when the political will exists, changes in themselves are relatively easy to implement. Business obstacles may depend, for example, on the costs of developing systems, whether there is a business case for the development work and who is willing to cover the costs and risks. In Finland, it has been found that there are more business obstacles related to the development of new business and its inherent slowness.

1.3. Ranking of other relevant barriers included in Chapter 10 of ACER's report by order of relevance.

A score of 7 corresponds to the highest relevance. Each score may be assigned only once.

	1	2	3	4	5	6	7
Insufficient cross-zonal transmission capacity	0	0	0	0	0	•	0
Bidding zones not reflecting structural congestions	0	0	0	0	0	0	0
Limited competitive pressure and/or liquidity in wholesale electricity markets	0	0	©	0	0	0	0
Complex, lengthy, and discriminatory administrative and financial requirements	0	0	©	0	•	0	0
Lack of incentives to TSOs and DSOs to consider non-wire alternatives	0	0	0	•	0	0	0
Scope for improving transparency, cost-reflectivity, and non-discrimination in network tariffs	0	0	0	0	0	0	0

1.3.1. Please explain your answers with reference to any factors you consider relevant for each barrier.

Again, we assume that "relevance" refers to the current significance of the mentioned obstacle in Finland.

The legislative framework is in place in Finland. However, the regulatory models set by the NRA still fail to sufficiently incentivise non-wire alternatives. For example non-wire alternatives usually include more risks than investing in new network capacity. If regulatory models don't take into account the costs of the risks, they do not sufficiently promote these, often OPEX based solutions as a true alternative to new capacity.

Sufficient cross-zonal interconnectors enable higher integration of renewable energy sources into the grid and efficient use of available resources (generation units, flexibility etc.) within EU. Therefore, it is important to promote further increase of cross-zonal interconnectors, but also make sure that current interconnectors are being used at maximum capacity, at least to fulfil the so called 70%-rule. For instance, between Finland and Sweden, Swedish TSO is restricting the capacity from Finland to Stockholm's bidding area.

1.4. Ranking of other relevant barriers included in Chapter 10 of ACER's report by order of required effort to overcome.

A score of 7 corresponds to the highest required effort. Each score may be assigned only once.

	1	2	3	4	5	6	7
Insufficient cross-zonal transmission capacity	0	0	0	0	•	0	0
Bidding zones not reflecting structural congestions	0	0	0	0	0	0	0
Limited competitive pressure and/or liquidity in wholesale electricity markets	0	0	0	0	0	0	©
Complex, lengthy, and discriminatory administrative and financial requirements	0	0	0	•	0	0	©
Lack of incentives to TSOs and DSOs to consider non-wire alternatives	0	0	0	0	0	•	©
Scope for improving transparency, cost-reflectivity, and non-discrimination in network tariffs	0	0	•	0	0	0	©

1.4.1. Please explain your answers with reference to any factors you consider relevant for each barrier.

When introducing new more cost reflective tariff structures, a main barrier is the resistance it will inevitably cause among customers. There will always be non satisfied customers when changes are made. For DSOs to be able to do structural changes in tariffs, a common understanding and common messages to the public from the DSOs, NRA and also the government of the Member State is required.

2.1. To what extent do you agree with the following findings and recommendations illustrated in Chapter 12.1 "Lack of a proper legal framework to allow market access" of ACER's report?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
ACER urges Member States to define a proper national legal framework for all new entrants in line with the Electricity Directive	•	•	•	•	•
National rules should legally allow all energy resources to become eligible parties in all electricity markets, balancing and congestion management services	•	•	•	•	•
To ensure participation of distributed energy resources through aggregation in all electricity markets, balancing and congestion services, the national rules should define at least one aggregation model applicable to all types of distributed energy resources for each market and SO service in line with the	©	•	©	©	•

requirements of the Electricity <u>Directive</u>					
To ensure new actors can offer innovative services and promote demand response, the national rules should recognise them as eligible parties to access final customer data	•	•	•	•	•
ACER considers that new actors should get access to data of non-customers in a level playing field compared to suppliers while the Member States ensure data protection and security. To ensure they all have access to data in a non-discriminatory manner and simultaneously, all Member States should give access to the same type and amount of data and through the same data platform or tool.		•		©	

2.2. To what extent do you agree with the following findings and recommendations illustrated in Chapter 12.2 "Unavailability or lack of incentives to provide flexibility" of ACER's report?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
ACER recommends accelerating the penetration of smart meters in the Member States with legal plans to reach the 80% target in place but still far from this target and in the Member States that have not set the 80% target in their national rules yet, despite a positive roll-out decision	•	•	•	•	
ACER also invites Member States with low penetration levels of smart meters but no legal plans nor target to accelerate the development of these devices	0	•	•	0	•
Where time-differentiated network tariffs are introduced, the NRA should regularly evaluate their impacts and their appropriateness.					

NRAs should obtain sufficiently granular temporal data on network conditions, on individual network users subject to the rollout of fit-for-time-of-use meters, and on the network use by individual network users		•	•	•	•
Where time-differentiated network tariffs are introduced, the network tariff structures and the signals should be mandatory for all network users, without a possibility to opt-out from them. Optionality may be temporarily reasonable when transitioning to a new time-of-use schedule to limit tariff impacts on network users		•	•		•
Where no time-of-use signals apply in transmission and/or distribution network tariffs, NRAs should investigate the need to introduce such signals from a cost-efficiency and/or network congestion point of view. Such studies should aim to identify which elements affect the effectiveness and efficiency of time-of-use signals to justify a decision to apply such signals or not in each context	©	•		•	
Where fit-for-time-of-use meters are largely missing, as a temporary solution, NRAs may design network tariffs by determining for different user profiles their contribution to the system peak	©	•	©	•	•
All NRAs should track and monitor the level of penetration of all types of retail electricity contracts	0	•	0	•	0
National authorities need to do even more to inform consumers on the benefits and potential risks of providing demand response. ACER recommends all Member States to strengthen national measures to raise consumer awareness and	•	©	©	•	•

mobilise flexibility and to share			
good practices that can be followed			

2.3. To what extent do you agree with the following findings and recommendations illustrated in Chapter 12.3 "Restrictive requirements to providing balancing services" of ACER's report?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
To be in line with the Electricity Balancing Regulation, ACER urges TSOs not doing so yet, to procure Frequency Restoration Reserves and Replacement Reserve services using a market-based mechanism	•	•	•	©	•
ACER encourages Member States where a mandatory provision for Frequency Containment Reserve applies to some generation to abolish this requirement and to open this balancing service to all resources by applying a market-based procurement method	•	•	•	•	•
When a prequalification process is technically justified, ACER recommends that TSOs define a formal process to prequalify reserve providing groups and to allow aggregating all types of technologies under the same group so that BSPs can combine their portfolios to optimise their service provision	•	•	•	•	•
ACER urges TSOs to regulate the duration of the prequalification process including the intermediate steps in line with the System Operation Regulation. When passing a re-prequalification after changes in the reserve providing group is justified, ACER also invites TSOs to regulate and shorten the duration of this process as much as possible. In a context where changes in units and groups will happen with increasing	•	•	•	•	•

frequency, a short re- prequalification process, if such a process is justified, can help distributed energy resources effectively enter balancing markets					
ACER recommends Member States to implement the requirements of the Electricity Regulation and the Electricity Balancing Regulation for balancing services provision and not to delay accession to the EU balancing platforms	•	•	•	•	

2.4. To what extent do you agree with the following findings and recommendations illustrated in Chapter 12.4 "Restrictive requirements to providing congestion management services" of ACER's report?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
ACER urges Member States to ensure that the reasons for not using market-based re-dispatching at transmission or distribution level do not contravene the exceptions allowed in the Clean Energy Package	•	•	•	•	•
ACER reminds all Member States to urgently define a regulatory framework to allow and provide incentives to DSOs to procure congestion management in their areas and to ensure they can procure such services from distributed energy resources pursuant to Article 32(1) of the Electricity Directive	•	•	•	•	•
Most Member States should define an iterative national reassessment process with a transparent decision-making procedure as soon as possible. ACER reminds Member States that in a context with increasing network congestions and more and more distributed energy resources and new actors willing to provide	•	•	©	©	•

flexibility, some market conditions			
such as predictability of network			
congestions or lack of competition			
may become inapplicable. As a			
result, the lack of market-based re-			
dispatching may not be sufficiently			
justified			

2.5. To what extent do you agree with the following findings and recommendations illustrated in Chapter 12.5 "Restrictive requirements to participating in capacity mechanisms and interruptibility schemes" of ACER's report?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Less restrictive requirements allow for more competition which may potentially reduce the costs of capacity mechanisms for consumers. To ensure these mechanisms are effectively available to all resources with non-discriminatory design features and processes, ACER recommends removing the requirements that directly exclude some distributed energy resources, such as restrictions to aggregation or to units connected to lower voltage levels. ACER also invites all Member States with capacity mechanisms to relax those requirements that can facilitate participation of distributed energy resources capable of fulfilling the required technical performance without jeopardizing the quality of the service delivery		•			
Interruptibility schemes or new ancillary service-related schemes targeted to demand response may weaken the competitive and direct participation of demand response units into capacity mechanisms, balancing markets, or network reserves by establishing a separate specific demand response product for the provision of these services. To ensure a					

level-playing field among all technologies and actors, and to maximise competition and avoid market fragmentation, ACER recommends the services related to interruptibility or demand response schemes to preferably be integrated within the existing wholesale electricity markets and SO services. Dedicated mechanisms for demand response should only be left to cases where no parallel procurement channels exist, or when there is a need to kick-start the development of demand response					
When the introduction of an interruptibility or a new ancillary service-related scheme targeted to demand response is justified, ACER recommends all Member States to carefully review the requirements and design features of these schemes to ensure they do not restrict participation of smaller interruptible loads or new actors capable of fulfilling the required technical performance. ACER also reminds the Member States to follow the approval procedures envisaged by the EU legislation	•	•	•	•	

2.6. To what extent do you agree with the following findings and recommendations illustrated in Chapter 12.6 "Limited competitive pressure in the retail market" of ACER's report?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
ACER invites all Member States to remove the barriers and restrictions assessed in this study to facilitate entry of new actors (aggregators, active customers, energy communities, etc.) and new business models (local markets,					
peer-to-peer trading, etc.). To prevent suppliers and other new	0	0	•	0	0

actors from exiting the market due		
to undue barriers, ACER also		
invites all Member States to take		
measures such as increasing		
opportunities for innovative		
models, facilitate switching, among		
others		

2.7. To what extent do you agree with the following findings and recommendations illustrated in Chapter 12.7 "Retail price interventions" of ACER's report?

	Strongly agree	Agree	Neutral	Disgree	Strongly disagree
Retail price interventions, including regulated prices, are not a barrier when targeted and aimed at those most in need. However, in some markets, price intervention essentially kills the business case for new actors aiming at unlocking flexibility from distributed energy resources. ACER therefore recommends Member States to ensure these interventions are targeted and aimed at those most in need. Member States should adopt detailed definitions and criteria for vulnerable consumers in line with the Electricity Directive	•	•	•	•	

2.8. To what extent do you agree with the following findings and recommendations illustrated in Chapter 12.8 "Focal topic: Network tariffs as both potential 'facilitators' and 'barriers' to active customers and providing demand response" of ACER's report?

	Strongly agree	Agree	Neutral	Disgree	Strongly disagree
Member States should conduct a study, pilot project and/or impact assessment to determine whether the network charges for active customers must have some differentiation compared to non-active customers to ensure they are cost-reflective and non-discriminatory	•	•	©	©	•

Member States should apply differentiated network tariffs for active customers providing explicit demand response as long as they reflect the different network costs triggered by their network use and they are not discriminatory vis-à-vis other network users	•	•	•	•	•
Member States should apply exemptions, discounts, or other differentiations in network tariffs for specific consumers only when duly justified. In a context of increasing network congestions and flexibility needs, NRAs should periodically assess the need and adequacy of any network tariff differentiation, taking into account the overall network impacts, not to provide disincentives for efficient network use	•		•	•	•
As described in ACER's 2023 Report on Electricity Transmission and Distribution Tariff Methodologies in Europe, ACER considers appropriate a gradual move to increasingly power-based network tariffs to recover those costs which show correlation with contracted or peak capacity. In particular, ACER recommends against using flat-rate energy-based charges (EUR/MWh), i.e., which are not including any time element which corresponds to the peak network usage, to recover infrastructure costs from network users		•	•	•	
ACER recommends avoiding net- metering where volumetric/energy network charges apply. Moreover, to be in line with Article 15(2) of the <u>Electricity Directive</u> , ACER reminds Member States that net metering	©	•	•	•	•

(with an exception) shall not apply			
to active customers after 31			
December 2023			

2.9. Please use the box below if you wish to explain your answers to questions 2.1 to 2.8.

Here we evaluate the recommendations in general at the European level, not necessarily just in Finland.

Comments on 2.1.:

We agree that independent aggregators should access electricity markets, including their interaction with final customers in a non-discriminatory manner compared to other market participants. A level playing field is a key issue here. It means equal opportunities and responsibilities. It does not mean easier or fewer obligations for independent aggregators.

E.g. ban on requiring prior consent by suppliers before concluding an aggregation contract cannot mean that the supplier should not require it to be informed of customer's flexibility. A supplier with balance responsibility must be aware if its customer's loads are controlled by an external party.

We agree that the rules regarding access to data must be fair for all parties. In our opinion, neither the supplier nor the independent aggregator should be able to access data of non-customers except with the customer's consent. Access to non-customer data can only be aggregated and anonymized. GDPR and trade secret regulations must always be followed.

Comments on 2.2.:

As said in ACER recommendation, it is important that tariff structure changes are introduced in a precise and systematic manner. In some cases it may be beneficial to give customers different kinds of tariff choices, but if the aim of a tariff structure is to affect the usage patterns, possibility to always opt out will be countereffective to the aim of the change.

In Finland we have fully rolled out Smart Metering already ten years ago and the experiences have been very positive. We fully agree that Smart Metering is a key for unlocking flexibility and we have found that many barriers experienced in European countries would be solved by introducing Smart Metering and providing the unbroken link straight from wholesale market to smallest residential customers.

Network tariffs shall remain simple and non-discriminative. Thus, we are sceptic towards dedicated tariffs to

different technologies or customer types. The tariffs should reflect network costs and needs, and customers can benefit from using the grid in an optimized way in relation to the general tariffs. Remuneration of flexibility actions or the ability to provide flexibility should be done via separate flexibility market procedures (such as DSOs buying a flexibility action), not via tariffs.

Comments on 2.4.:

We strongly agree that implementing the Clean Energy Package and other existing relevant EU legislation is the key to unlock demand response potential. We do not see a need to keep amending or adding new legislation, but emphasize should be on implementation of the existing ones. For market and network operators to be able to innovate and invest, stable and predictable legislative framework is a necessity.

Comments on 2.5:

We agree with ACER that new schemes or markets targeted at demand response may weaken the competitive and direct participation of demand response units into existing markets, such as balancing markets. Increasing share of variable renewables in the grid also increases the need for balancing products. Therefore, it is important that the markets are liquid, and the regulations do not lead to a more fragmented market and dispersion of liquidity. Dedicated mechanisms for demand response should only be left to cases where certain units do not fulfil the technical requirements of existing markets.

Comments on 2.6:

We want to again stress that level playing field is the key, and it means that all parties (old and new ones) have the same rights and obligations.

We also want to stress that the report should avoid the impression that the customer's electricity supplier cannot be an aggregator and bring their customers' flexibility to the market. When we talk about aggregation, we need to be non-discriminatory and not just talk about new market players. After all, the retailer acts as an aggressor for its own customer base in both the DA and ID markets.

Comments on 2.8:

We do not agree that dedicated tariffs should be designed for active customers providing explicit demand response. Remunerating demand response or the ability to provide demand response via network tariffs can create overly complex tariff structures. Also it would be very difficult to validate that the demand response that is being remunerated, is actually provided. Also non-discrimintory would be difficult to achieve. Demand response and flexibility should be remunerated based on the value of the demand response action. This would in most cases be more reasonable to do via separate demand response markets. Network tariffs can provide general incentives to utilize the grid in a most cost effective way, but these signals and needs are in most cases not different to different customer groups.

3. Please specify below any important <u>result</u> contained in the report that you believe <u>does not represent the</u> reality of a barrier or a Member State.

We see that many of the issues mentioned in the report as obstacles in Finland have already been removed. Some of the answers in the report are therefore outdated or incorrect. The picture of Finland presented in the report does not correspond to our understanding of the current situation, so we consider this ranking to be irrelevant. In Finland, for example, incentives for flexibility are already in place (smart metering and dynamic pricing), but we see that it is very important to remove these barriers elsewhere throughout Europe. Similarly, in Finland, for example, the primary legal framework has already been adopted and secondary legislation is being prepared.

According to the report, in Finland, for example, DSO could own charging infrastructure, active customers are not defined, and legislation on aggregation or communities is not implemented. These are all wrong, for example, communities and a group of active customers have entered legislation many years ago, in 2020.

Regarding Finland, it has also been left unanswered for such points about which the NRA would have had information, such as, the amount of retail electricity contracts with time differentiation.

- 4. With respect to overall barriers and/or underlying indicators that hinder the participation of distributed energy resources, including demand response, energy storage and distributed generation, to wholesale electricity markets and the provision of balancing and congestion management services, in accordance with the provisions of the Electricity Directive, the Electricity Regulation and the relevant Network Codes and Guidelines:
- 4.1. Do you consider any of the underlying indicators included in ACER's report to be comparatively <u>more important</u> to focus on in future editions of the report?

As mentioned earlier, regulatory clarity and certainty are the key determinants for investors' decision-making processes. Predictable regulation should be the golden principle and kept in mind when introducing new regulations and updating national regulatory models.

	ant to focus on in future editions of the report?
-	
. W	ould you suggest any additional overall barriers?
c b	When we have asked Finnish market parties (our members) about the obstacles to demand response, the hallenges have mainly been perceived as commercial, typical challenges related to the start-up of new susiness, and regulatory changes are not primarily needed to solve them. They have now been excluded rom this report.
ir n e	Customers have uncertainties and misconceptions about flexibility. Customers do not consider the investments needed to implement flexibility (e.g. control automation) to be economically viable. Customers may not understand the value of flexibility or their ability to be active in the market. In the past, the price of electricity was fairly flat, and there were no major price peaks. Because of this, the investments on flexibility were deemed unprofitable. In this respect, the situation has changed and is changing.
tł	Many of the energy company's new flexibility services are still in the experimental phase, when providing nem still requires manual work. The internal IT-systems do not yet support an efficient operating model. This educes cost-effectiveness.
s o k	nstead of regulatory changes, it was felt that investments were needed in the sales and marketing of new ervices, with a clearer emphasis on the benefits received by the customer. Companies also need new kinds of expertise and resources, as well as strong development of IT-systems. Energy companies need new inds of expertise in areas such as product development, sales and marketing, as well as the acquisition and evelopment of a partner network.
	Vith regard to regulation, it is hoped that it will enable innovation, i.e. legislation must be market-based and reate a neutral marketplace. Long-term and market-based regulation is needed.
	n conclusion, the most relevant barriers are financial and profitability-related. Typical barriers to the ntroduction of a new product on the market.
amp	Yould you suggest any additional <u>underlying indicators?</u> Please be as much specific as possible. For ole, if you propose a composite indicator based on multiple questions, please indicate what specific its would be assessed.
-	

✓ Other (please specify)
Do you have any specific case study topics to propose? For which countries?
Collection of Best practices are always very useful.
In future editions, timeline of collection of data could maybe be revised to avoid publishing outdated information regarding the member states situations.
Do you have any specific topics to propose as focal points?
Collection of Best practices are always very useful.
In future editions, timeline of collection of data could maybe be revised to avoid publishing outdated information regarding the member states situations.
Please specify other additional information and/or analyses. Collection of Best practices are always very useful.
In future editions, timeline of collection of data could maybe be revised to avoid publishing outdated information regarding the member states situations.
hat other changes would you suggest for future editions of ACER's Market Monitoring report on barriers and response and distributed energy resources?
-

compatible resources, including hydro, pumped-hydro, other storage solutions and the demand side including electrolysers. Cross-border interconnections and regional cooperation can also play a key role, by enabling efficient utilisation of flexibility resources across Member States and allowing to reduce overall flexibility

5. What kind of additional information and/or analyses do you think that future editions of the report could benefit

from?

requirements.

For 2024, ACER intends to extend the scope of its market monitoring report on barriers to demand response and other distributed energy resources, to address flexibility more widely. The questions in this section of the survey aim to gather insight on the sources having the highest potential to provide the necessary increase in flexibility in the coming years and the most significant barriers standing in the way.

7. Please rank the following flexibility sources by order of technical potential (i.e. technical characteristics, maturity, relative scale, infrastructure development lead time) to contribute to future (2030-2040) flexibility needs of the EU's power system for each flexibility timeframe (daily, weekly, seasonal), on a scale between 1 and 15. Leave blank if you consider some flexibility source to be irrelevant for a certain timeframe or if no opinion.

A score of 15 corresponds to the highest potential. Please use each score only once for each timeframe.

	Daily	Weekly	Seasonal
Conventional thermal generation			
Hydropower (excluding pumped-hydro)			
Dispatchable RES (e.g. biomass, biogas, other			
controllable RES)			
Pumped-hydro			
Batteries (stationary, front-of-the-meter, behind-the-			
meter excluding in combination with load)			
Electric Vehicles			
Power-to-Gas-to-Power			
Industrial demand response			
Commercial demand response			
Residential demand response			
Electrolysers			
Interconnections: cross-zonal exchange capacity			
Other #1 (please specify in comment box)			
Other #2 (please specify in comment box)			
Other #3 (please specify in comment box)			

7.1 Please specify other flexibility sources ranked in the previous question. Also, if you wish to be more specific, please explain your answers.

We didn't find it possible to answer to these questions as they were formulated.

In the future we will require vast amounts of new flexibility. All flexibility resources have their own place in the palette and all resources have also their own limitations. Utilizing large scale flexibility resources (hydrogen, hydro power, industrial consumption and electrification of district heating) is paramount, but in addition we need to utilize small scale resources (residential EV charging and electrical heating) more. The latter needs namely a full roll out of Smart Metering throughout Europe, dynamic pricing and utilisation of home automation solutions. To achieve the needed flexibility to the future energy system, all of these shall be promoted side by side.

- 8. For the 3 flexibility sources with the highest average score across the three different flexibility timeframes in question 7, please rank the following barriers to providing flexibility through the market by order of <u>relevance</u>, on a scale between 1 and 20.
 - It is clarified that the first seven barriers listed in the following tables correspond to the overall barriers included in chapters 3 to 9 of ACER's 2023 report. These barriers encompass the underlying indicators illustrated in the respective chapters of the report.
 - It is assumed that your answers refer to the country/countries you are active in, unless indicated differently in the comment box below.
 - Leave blank if not applicable, for example if the respective mechanism does not exist in the respective country, if you consider the barrier to be irrelevant, or if no opinion.

8.1.	Please specify the flexibility source with the <u>highest average score</u> across the three flexibility timeframes in
que	stion 7.

8.1.1. Ranking of overall barriers by order of <u>relevance</u> for the flexibility source with the <u>highest average score</u> in question 7.

A score of 20 corresponds to the highest relevance. Each score may be assigned only once.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lack of a proper legal framework to allow market access	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unavailability or lack of incentives to provide flexibility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictive requirements to providing balancing services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictive requirements to providing congestion management services	•	•	•	•	0	•	0	•	©	•	0	•	•	•	0	0	0	•	•	•
Restrictive requirements to participating in capacity mechanisms and interruptibility schemes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Limited competitive pressure in the retail market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail price interventions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insufficient market integration at EU level (i.e. insufficient cross- zonal transmission capacity available for trade, insufficiently addressed structural congestions)	©	©	•	0	•	•	•	©	•	©	©	©	©	©	©	•	©	©	•	©
Limited competitive pressure and/or liquidity in the wholesale market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictions to the exploitation of multiple available revenue streams in the market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Insufficient information to market actors regarding flexibility needs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lack of incentives for TSOs/DSOs to consider non-wire alternatives to network reinforcement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictions to connecting to the network	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Network tariffs not adequately adapted to new and emerging sources of flexibility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insufficient access to and exchange of data	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insufficient coordination between TSOs and DSOs for procurement of flexibility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Other #1 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #2 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #3 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #4 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.1.2. Please specify other barriers ranked in the previous question. Also, if you wish to be more specific, please
explain your answers.
8.2. Please specify the flexibility source with the second highest average score across the three flexibility
timeframes in question 7.

8.2.1.Ranking of overall barriers by order of <u>relevance</u> for the flexibility source with the <u>second highest average score</u> in question 7.

A score of 20 corresponds to the highest relevance. Each score may be assigned only once.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lack of a proper legal framework to allow market access	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unavailability or lack of incentives to provide flexibility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictive requirements to providing balancing services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictive requirements to providing congestion management services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	•
Restrictive requirements to participating in capacity mechanisms and interruptibility schemes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Limited competitive pressure in the retail market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail price interventions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insufficient market integration at EU level (i.e. insufficient cross- zonal transmission capacity available for trade, insufficiently addressed structural congestions)	0	•	•	0	0	•	0	0	©	•	•	©	•	©	0	•	©	©	•	•
Limited competitive pressure and/or liquidity in the wholesale market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	©
Restrictions to the exploitation of multiple available revenue streams in the market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Insufficient information to market actors regarding flexibility needs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lack of incentives for TSOs/DSOs to consider non-wire alternatives to network reinforcement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	•
Restrictions to connecting to the network	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Network tariffs not adequately adapted to new and emerging sources of flexibility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	•
Insufficient access to and exchange of data	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insufficient coordination between TSOs and DSOs for procurement of flexibility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	•

Other #1 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #2 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #3 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #4 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.2.2. Please specify other barriers ranked in the previous question. Also, if you wish to be more specific, please
explain your answers.
8.3. Please specify the flexibility source with the third highest average score across the three flexibility
timeframes in question 7.

8.3.1. Ranking of overall barriers by order of <u>relevance</u> for the flexibility source with the <u>third highest average score</u> in question 7.

A score of 20 corresponds to the highest relevance. Each score may be assigned only once.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Lack of a proper legal framework to allow market access	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unavailability or lack of incentives to provide flexibility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictive requirements to providing balancing services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictive requirements to providing congestion management services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictive requirements to participating in capacity mechanisms and interruptibility schemes	0	0	0	0	0	0	0	0	0	0	0	•	0	0	0	0	0	0	0	0

competitive pressure in the retail market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retail price interventions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insufficient market integration at EU level (i.e. insufficient cross- zonal transmission capacity available for trade, insufficiently addressed structural congestions)	©	©	•	•	©	•	•	©	©	•	©	•	©	•	•	•	•	©	©	•
Limited competitive pressure and/or liquidity in the wholesale market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Restrictions to the exploitation of multiple available revenue streams in the market	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Insufficient information to market actors regarding flexibility needs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lack of incentives for TSOs/DSOs to consider non-wire alternatives to network reinforcement	•	0	0	0	0	0	0	0	0	•	0	0	0	0	0	•	0	0	0	0
Restrictions to connecting to the network	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Network tariffs not adequately adapted to new and emerging sources of flexibility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insufficient access to and exchange of data	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insufficient coordination between TSOs and DSOs for procurement of flexibility	0	•	0	0	0	0	0	0	0	0	0	0	0	•	0	0	0	0	•	0

Other #1 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #2 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #3 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other #4 (please specify in comment box)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3.2. Please specify other barriers ranked in the previo explain your answers.	us question. Also, if you wish to be more specific, pleas
9. What indicators would you suggest using to assess th	he barriers mentioned in question 8, including any
additional barriers you specified and excluding barriers	
10. What monitoring analyses would you suggest using market? e.g.	to assess actual status in bringing flexibility through th
Metrics pointing to inflexibility in the system (e.g.	. increased price volatility, negative prices)
Liquidity of intraday and balancing markets	
Diversification of sources providing flexibility (i.e.	. who is providing flexibility)
Other (please specify)	
I 0.1. Please clarify your answer and/or specify other mo	onitoring analyses proposed in the previous question.
ntact	

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