

Ljubljana, 1 February 2022
ACER-CZ-CGC-at-2022
Ares ref nr: Ares(2022)670761

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Director
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By e-mail only

Subject: Results of the scoping exercise for the development of a network code based on Art. 59(1)(e) of the Electricity Market Regulation

Dear Ms. Sikow-Magny,

Referring to your letter of 21 October 2021, we wish to inform you about the results of the scoping phase on Framework Guideline based on Art. 59(1)(e) of the Electricity Market Regulation¹ (hereafter the Framework Guideline, or FG, and the Regulation).

The scoping of the FG started in September 2021 with coordinated work by ACER and NRAs. A project team of NRAs, as well as an expert group was then formed. 12 project team and four expert group meetings have taken place since then. In addition to that, a stakeholder workshop was organised by ACER on 15 November 2021 with more than 200 stakeholders attending.

Besides the very valuable inputs from different stakeholders through both the expert group and the abovementioned workshop, our work has also found inspiration in previous work, and in particular the Joint Task Force Roadmap², the ASSET Study on Regulatory priorities for enabling Demand Side Flexibility³, the CEER paper on DSO Procedures of Procurement of Flexibility⁴ and several papers from stakeholder associations.

In general, there has been a high level of interest in the scoping work, as the demand side solutions and energy storage are perceived as key to integrate in a cost-efficient way the growing share of renewable energy and new loads, such as those resulting from heat pumps and electric vehicles⁵. The scoping phase highlighted that today, demand response and other relevant resources do not participate to a large extent in European electricity markets, and

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0943&from=EN>

² [210728_TSO-DSO-Roadmap-on-Distributed-Flexibility.pdf \(geode-eu.org\)](https://www.geode-eu.org/210728_TSO-DSO-Roadmap-on-Distributed-Flexibility.pdf)

³ [ASSET-EC-Regulatory-priorities-for-enabling-Demand-Side-Flexibility.Final -1.pdf](#)

⁴ [CEER paper](#)

⁵ Other complementary tools are dynamic tariffs and non-firm connection agreements.

several actions are needed to enable market access to all resource providers including consumers and thus unlock their full potential in the coming years.

A future European framework for demand response and other relevant resources should ensure that no undue regulatory barriers hamper their participation in any of the existing electricity markets. Also, it should enable their participation in market-based procurement of services needed by the system operators, where applicable. These two points will be addressed throughout this letter and the coming work on a Framework Guideline.

The scoping phase also highlighted that although included in the Clean Energy Package, both market-based procurement of services needed by the DSOs and the participation in all electricity markets of demand response and other relevant resources are still topics in progress (as reflected in the numerous ongoing research projects, pilot projects and studies), and the interaction between local system operation and energy markets (and their possible integration) has still to be evaluated before starting the detailed design of new market models. Therefore, the benefits of defining Europe-wide target models today are not certain, and we consider that the field should still be open for testing different models. However, it is of utmost importance to ensure coherence across all the markets, processes and time-frames. From a general point of view, we clearly see the need for establishing a common terminology and principles, common requirements for certain processes, and to define how further harmonisation should be established when and where necessary once sufficient knowledge is reached. The right level of harmonisation needs to be adapted to each topic.

Starting from the legal basis provided in Art. 59(1)(e) of the Regulation, we defined specific criteria to assess whether the relevant elements fall in the scope of the new rules to be developed; the most important of them being the right balance between the need for European harmonisation required to achieve the aims of the Regulation and the Member States' rights to establish national network codes which do not affect cross-zonal trade. When conducting the scoping exercise, alongside other parts of the aims of the Regulation, market integration has been key. Where adaption of cross-zonal markets may be needed to enable participation of demand response and other relevant resources, it is a straight forward conclusion that these should be included in the scope. However, also markets and products that have a more local character, such as services to system operators (and all processes related to participating in these), may to some extent need harmonisation for achieving the aims of the Regulation. First, local markets may interact with cross-border markets as the same resources may be active in both. Second, too fragmented (local) markets will make participation in several network areas difficult, contrarily to the Regulation's aim of allowing all resource providers and electricity customers market access, whereas sufficiently harmonised rules will help unlock their full potential.

1. SCOPE FOR A EUROPEAN FRAMEWORK BASED ON ART. 59(1)(E) OF THE REGULATION

In this part, we will describe what we consider should be the scope of a European framework based on Art. 59(1)(e) of the Regulation, and answer the three main questions from your letter. As we are in an early phase, we cannot at this point exclude that to some extent, our views on the exact scope may develop when going deeper into the topics through the drafting of the Framework Guideline.

1.1 Identification of market participants and services providers that should be considered for the purpose of the development of a European framework based on Article 59(1), point (e) of the Regulation

A European framework based on Art. 59(1)(e) of the Regulation should be technology agnostic and non-discriminatory. Nevertheless, we consider it useful for the drafting to list, however inexhaustively, the resource providers that we consider should be covered under this framework. Indeed, although solely demand response and storage are explicitly included in the scope for a Network Code through Art. 59(1)(e) of the Regulation, the framework should be technology agnostic and non-discriminatory and thus not favour demand side response and storage to the detriment of other resource providers. Therefore, we suggest the inclusion of other resource providers which are mentioned in the concerned articles listed in the abovementioned provision as well as other related resource providers discussed in the expert group.

The European framework should cover load, storage (including vehicle to grid technology (EV2G)), and distributed generation, aggregated or not. No resource providers should be excluded, although the main aim of the framework should be to ensure de facto access to all electricity markets for these resource providers. At this stage, we consider that no resource providers should be excluded based on the size of the assets or the voltage level of the connection. This does not preclude from introducing different provisions based on non-discriminatory criteria (e.g. for different voltage levels or asset sizes) where necessary.

1.2 Determine products, services and markets that should be included in a European framework

In general, products and services shall be defined taking into account the specific needs of system operators and these can be different depending on the voltage level and possibly on different countries. Nonetheless, the scoping exercise has identified relevant topics for possible inclusion in a European framework.

1.2.1 Electricity Balancing markets

The implementation of the target model defined for electricity balancing markets will help enable the participation of demand response and other relevant resources. However, particular attention should be paid to specific features of access to this market, in particular prequalification processes, see own headline under question 3 below.

Currently, the European framework on balancing includes provisions for the imbalance settlement, while there is also a European methodology for the imbalance settlement harmonisation (ACER Decision 18/2020), which is directly applicable to all balance responsible parties including aggregators. However, in case new European rules or principles are adopted for aggregation, including rules on the baseline methodology, measurement and validation (see below), the European framework on imbalance settlement may need to be reviewed.

Frequency containment reserves is of particular interest for demand response and other relevant resources. Several features of this may act as barriers to access and should hence be further investigated, one example being symmetric products.

1.2.2 Congestion management

Market based procurement of services needed by the DSO to manage congestion is introduced in Art. 32 of the Electricity Directive⁶ (hereafter the Directive); we understand that these services also include redispatching. Market-based procurement is preferred, unless the regulatory authorities have established that the procurement of such services is not economically efficient, or that it would lead to severe market distortion. Although a high-level description of the market-based redispatching is provided in the Electricity Regulation, a more specific framework should be investigated, both because of the potential interaction of these markets with cross-zonal markets such as Electricity balancing market (hence being relevant for both DSOs and TSOs) and in order to enable participation in several network areas.

TSOs and DSOs may be in direct competition for procuring services (having the same resources as service providers at overlapping timeframes), and the resulting local markets will be in close interaction. Furthermore, the arguments for a high-level European regulation for market based procurement of services by DSOs also apply for the procurement of services by the TSOs. Therefore, the European regulation should apply for both.

Such regulation should in particular investigate the need for common principles and requirements for minimum tradable products (both long and short term), pricing mechanism, coordinated access for both TSOs and DSOs, transparency and information, market abuse/discrimination and the risk of such in particular as concerns unbundling of the procuring system operator, data exchange, principles for a market platform and for interaction with other electricity markets.

1.2.3 Non frequency ancillary services

Non frequency ancillary services may be relevant for the new rules as services procured by the DSOs. In particular, voltage control is a service that could be relevant for demand response and other relevant resources, and although local, there seems to be benefits from the inclusion of some aspects of its procurement in a European framework.

1.3 Identify the related areas and topics that should be addressed in a European framework

This section includes areas and topics that are relevant for all markets, including wholesale markets that per se are excluded from the scope, and can be considered as overarching ones. These topics are complementary to those mentioned under question 2.

1.3.1 Cooperation of TSO and DSO

When providers connected to both the transmission and the distribution grids are active in different markets, and both TSOs and DSOs procure services for the optimal operation and investment in their grids from these providers, a close cooperation and coordination of system operators is necessary. Such cooperation and coordination should aim at optimal use of the available resources. Common principles for this cooperation should be established.

⁶ [DIRECTIVE \(EU\) 2019/ 944 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - of 5 June 2019 - on common rules for the internal market for electricity and amending Directive 2012/ 27/ EU \(europa.eu\)](#)

1.3.2 Data exchange

The cooperation between system operators described above will necessitate exchange of data, such as data describing the grids and their needs, the available and used resources, the different services and products and providers of these etc. Moreover, the procurement of services to the system operators and activation and validation of these services and products will necessitate exchange of data between system operators and providers. Common principles should be established for which data to be exchanged, roles and responsibilities for exchanging and the mean by which they should be exchanged (e.g. “flexibility register”).

1.3.3 Value stacking and interaction between markets

Where market-based procurement of services for system operators is applied, this may have mutual interaction with wholesale markets (including balancing). The need for establishing principles for such interaction should be investigated, with the double aim of ensuring the well-functioning of both wholesale and local markets and the possibility for providers to be active in several markets (value stacking).

1.3.4 Prequalification processes

Prequalification processes apply for participating in several markets, such as electricity balancing and market procured services to system operators. When such processes are too heavy, they may constitute a barrier for participation⁷. This concerns in particular smaller providers and aggregators. For these latter, the need for a new prequalification process for all changes in the aggregated connection points is of particular concern.

It is important to streamline these processes as far as possible. The prequalification requirements should go no further than what is technically necessary for each type of product and provider. Moreover, potential synergies between processes, and the avoidance of double prequalification (i.e. by both TSO and DSO) for one service, should be further investigated.

1.3.5 Baseline methodology, measurement, validation

Validation is key for providers of demand response and other relevant resource to be an alternative to more traditional providers. Baseline methodology and measurement are necessary for the validation process. Although national specificities may, to some extent, require different approaches, common definitions and principles for baseline methodology, measurement (including the potential use of submeters) and validation are necessary to facilitate participation in several network areas.

1.3.6 Aggregation

The aggregators may play an important role for the participation of smaller units in all electricity markets. However, too fragmented markets and too heavy procedures for access may be detrimental to their participation. Art. 17(3) of the Directive lists six elements that Member states shall ensure to be contained in the relevant regulatory framework for aggregation. The need for additional common principles for aggregation should be investigated.

⁷ [ACER-CEER Market Monitoring Report \(MMR\) | www.acer.europa.eu](http://www.acer.europa.eu), see chapter 7

Moreover, the requirements for aggregators may be differentiated for different markets. For instance, the level of information on connection points is highly relevant for local congestion management, but less for other products and services that are not local. The need for the current framework to be adapted further should be studied.

1.3.7 TSO/DSO-owned storage

Articles 36 and 54 of the Directive provide that DSOs and TSOs are not to own, develop, manage or operate storage facilities, but provide also a framework for derogations to this. This framework should be investigated further in order to ensure that also demand response and other relevant resources is preferred to TSO- and DSO-owned storage, in particular when evaluating alternatives that may trigger the phasing out of such technologies DSO/TSO-owned storage as described in Articles 36(3) and 54(4) of the Directive.

1.3.8 Definitions

Many of the topics that we suggest to include in a European framework lack a common terminology. It is therefore important that definitions are established. This concerns in particular, but is not limited to, market-based procurement of services needed by the system operator, aggregation, baselining, measurement and validation. Also roles and responsibilities for different processes need to be defined clearly.

2. LIMITATION

The European Commission asked ACER to pay special attention to particular issues. Whereas several of these issues are included in the scope as described above, others are suggested to be excluded from the scope of a European Framework based on Art. 59(1)(e) of the Regulation for demand response. However, although excluded per se, these topics and areas may be indirectly concerned by the topics included in the scope.

2.1 Capacity mechanisms and interruptibility schemes (adequacy)

Discussions in the expert group brought up the topic of capacity mechanisms and interruptibility schemes. Although demand response and other relevant resources face obstacles to participate in current capacity mechanisms and interruptibility schemes in several countries⁸, these measures are considered out of the scope as currently they are not described in any current Network Codes or Guidelines. However, once the abovementioned topics that fall into the scope of a European framework are addressed, we would consider that demand response and other relevant resources should participate on equal terms with any other resources.

2.2 Forward, Day Ahead and Intraday markets

The scoping analysis conducted by ACER and the NRAs, including inputs from the expert group and other stakeholders, did not conclude on any features in the integrated Forward, Day Ahead or Intraday electricity markets that hamper participation of demand response and other relevant resources in these markets. However, once the topics included in the scope

⁸ <https://www.acer.europa.eu/electricity/market-monitoring-report>, see chapter 7

described above resolved, this would facilitate participation of demand response and other relevant resources in these markets.

2.3 Implicit demand response, grid tariffs and DSO incentives

Implicit demand response, i.e. adjusted consumption and/or generation pattern as a reaction to dynamic electricity prices and/or tariffs, should not be included in a European framework based on Art. 59(1)(e) of the Electricity Market Regulation on demand response. We suggest to limit the scope to processes concerning tradable products and services. As a consequence, the scope should exclude dynamic grid tariffs and incentives to system operators to improve efficiencies in the operation and development of the distribution system.

3. INTERACTION WITH OTHER CODES AND GUIDELINES

At this stage, it is not yet determined whether the development of a European framework based on Art. 59(1), point (e) of the Regulation should consist in the development of a new network code, in amendments of existing network codes and guidelines, or both. Either solution is chosen, special attention should be paid to interactions with (and potential amendments of) other codes and regulations (and methodologies pursuant to them) in order to ensure overall coherence and that the European framework as a whole supports the access of demand response and other relevant resources to all electricity markets. This concerns in particular the System Operation Guideline⁹, the Demand Connection Network Code¹⁰, the Network Code on Requirements for Generators¹¹, the Capacity Allocation and Congestion Management Guideline¹², the Electricity Balancing Guideline¹³ and the Implementing Act(s) on Interoperability and Data Exchange Rules in development¹⁴. Moreover, potential interaction with other legal frameworks, e.g. the Measuring Instruments Directive¹⁵, may be a point of attention.

4. OTHER TOPICS OF CONCERN

The scoping phase shows that there are technical and operational prerequisites that need to be in place for the market-based procurement of services needed by system operators. The need for these prerequisites varies depending on voltage levels and degree of meshed network that the SOs operate. Smart meters and other sensors enabling knowledge of the current state of the grid, grid models in standardised structures (Common Information Model) allowing for exchange of locations of both congestions and connections points that qualify for solving the congestion, standardised interfaces and access to sufficiently developed planning

⁹ [COMMISSION REGULATION \(EU\) 2017/ 1485 - of 2 August 2017 - establishing a guideline on electricity transmission system operation \(europa.eu\)](#)

¹⁰ [COMMISSION REGULATION \(EU\) 2016/ 1388 - of 17 August 2016 - establishing a Network Code on Demand Connection \(europa.eu\)](#)

¹¹ [COMMISSION REGULATION \(EU\) 2016/ 631 - of 14 April 2016 - establishing a network code on requirements for grid connection of generators \(europa.eu\)](#)

¹² [COMMISSION REGULATION \(EU\) 2015/ 1222 - of 24 July 2015 - establishing a guideline on capacity allocation and congestion management \(europa.eu\)](#)

¹³ [COMMISSION REGULATION \(EU\) 2017/ 2195 - of 23 November 2017 - establishing a guideline on electricity balancing \(europa.eu\)](#)

¹⁴ Based on art. 24 of the Electricity Directive

¹⁵ [Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments \(recast\)Text with EEA relevance \(europa.eu\)](#)

tools, control centre operation etc. are among others necessary to enable optimal use of demand response and other relevant resources, at least in critical areas. In particular, these are less developed in the lower voltage levels.

Some of these areas may overlap or interact with topics included in the scope of a European framework based on Art. 59(1)(e) of the Regulation as described above, in particular as concerns cooperation between system operators and data exchange. However, to a larger extent the technical and operational prerequisites should be dealt with in a different context, as these are more general concerns.

This sums up the results of the scoping phase of the Framework Guideline. ACER services are at your disposal to discuss any questions which may arise.

In case you have any questions, please do not hesitate to contact Athina Tellidou

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Yours sincerely,

- **SIGNED** -

Christian Zinglensen
Director