Answer to CEER Consultation

Consultation on Flexibility Use at Distribution Level

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(A) Flexibility at Distribution Level (see sections 2.2 and 2.3)

1. What are, in your opinion, the main drivers for flexibility use by DSOs going to be in the coming years?

- Increased electrification of transport and heating with simultaneous load patterns (unless flexibly managed)
- Increased local generation leading to bi-directional flows and possible challenges of simultaneous injection/consumption
- Growing uncertainty around future network requirements and expansion needs, making flexibility a possible cost-effective option to defer or avoid network investments
- Simultaneous reactions by consumers or local generators and prosumers to price signals on wholesale markets

2. Please provide any alternative definitions for flexibility that you think capture the focus of this paper.

Flexibility is the ability of market parties to manage consumption and generation in response to financial signals or market arrangements, in order to ensure the stability and balance of the system, avoid congestions and reduce total energy system costs for all.

(B) DSO Uses for Flexibility (see section 2.4)

3. Should DSOs be encouraged to use flexibility to manage the distribution network where this is more efficient than reinforcing the network? Please provide an explanation.

Yes, DSOs should definitely be encouraged to use flexibility from market actors where this is more efficient than reinforcing the network. The incentive structures for DSOs should be changed to encourage and enable the most efficient options – i.e. moving from a CAPEX-based approach to a TOTEX-based approach.

SEDC agrees with the CEER assessment that flexibility services can serve to enhance distribution grid operation and the grid's hosting capability for decentralised generation, storage and demand side and new forms of demand such as electro-mobility. Flexibility should also aid management of short-term power system issues (e.g. congestion management) and lower overall network costs.

The regulatory framework should ensure that DSO sourcing of flexibility is market-based and neutral towards all solutions and market actors. Furthermore, it is important that the market arrangements and products for flexibility at the distribution level are aligned with the arrangements at wholesale level, so as to enable multi-usage and avoid contradictory signals.

4. Should all sources of flexibility be treated equally in the market and by system operators?

Yes, all sources of flexibility – demand response, storage, generation and interconnections - should be enabled to compete on an equal footing. This requires a) standardised flexibility product definitions that reflect the needs of the system rather than the capabilities of particular providers (including an appropriate timeframe to allow investments in flexibility as a full alternative to traditional solutions), b) full neutrality of the system operator sourcing the flexibility from the market.

Unfortunately, barriers exist in the markets today, such as contradicting network charges that dis-incentivise demand-side flexibility.

For examples on current barriers in today's markets, refer to the SEDC report "Explicit Demand Response in Europe – Mapping the Markets 2017": http://www.smartenergydemand.eu/wp-content/uploads/2017/04/SEDC-Explicit-Demand-Response-in-Europe-Mapping-the-Markets-2017.pdf

5. Are there any uses for flexibility that you think we have missed and should be considered? If yes, please provide an explanation.

SEDC agrees with the uses listed by CEER

Furthermore, in order to ensure optimal coordination and a safe grid operation, it is important that DSOs and TSOs exchange information in an efficient way about the presence and potential development of flexibility sources in their grid.

6. Do you think it is important for Member States to establish standardised EU definitions of the various flexibility products, to facilitate market participation in flexibility use at distribution level?

The standardisation of flexibility products and streamlining at distribution- and wholesale level is essential to enable market parties to offer their flexibility where it is most needed at any time, standardise technology and service solutions and reduce transaction costs and to and ensure liquidity and transparency. Such standardisation should be envisaged at least per market zone, within an overarching European framework. (Recognising that a full standardisation at supra-national level could reduce the effectiveness of the measures).

(C) DSOs Accessing Flexibility (see section 3.1)

7. Should regulators seek a regulatory framework that can accommodate a range of models that would enable DSOs to access and use flexibility, while ensuring that competition and markets are not distorted?

In principle, different approaches can exist in parallel, such as advanced network tariffs and market-based procurement. However, the provision of flexibility or entry into contracts with flexibility commitments, including from Demand Response, should always be voluntary. Non-voluntary interventions should be limited to exceptional emergency situations only and subject to reimbursement.

A market-based approach with a level playing field treatment of all service providers should be the founding principle at European level.

8. What do you consider to be the key benefits and key risks of particular models (rules-based, network tariffs, connection agreements, and market-based)?

Rules based: SEDC considers that the provision of demand-side flexibility and other frequency-based services should- except for exceptional emergency situations - always be voluntary. A mandatory rules-based approach -e.g. for Demand Response - would undermine the market-principles and consumer choice. It could also reduce incentives for innovation and discourage investments in flexibility.

Network tariffs: To incentivise consumers to use electricity in the most economically efficient way, network tariffs should allow them to actively respond to market signals. As a first step, distribution tariffs should therefore certainly not hamper Demand Response.
Alternative pricing options should be explored to reflect the impact a consumer has on the network. A theoretically efficient but technically and practically challenging solution in this respect could be critical peak pricing that reflects local system constraints in real time. However, dynamic network pricing approaches should be treated with caution if they fail to reflect the actual requirements and the new dynamics of a decentralised energy system. Dynamic network price increases or spikes that also apply outside the times of actual system constraints could unnecessarily contradict wholesale pricing signals and thus reduce market and system efficiencies.

Connections agreements: Ensuring the neutrality and transparency of this approach will be particularly challenging and requires strong regulatory oversight. For these reasons, the SEDC believes that connection agreements should be limited to cases where market-based procurement of flexibility does not lead to sufficient results. If connection agreements are deployed by the DSO, these must be strictly limited to managing the specific constraint associated with the agreement. To this end, a clear, technical dispatch criterion should be defined, based on the loading of the particular constrained network segments. Also, the DSO should ensure full transparency on the expected maximum level of curtailment, all consumers and market parties must be treated in a non-discriminatory manner and should be able to choose between different options for grid connection

Market-based: The market-based procurement of flexibility services can be an efficient, transparent and neutral means of accessing flexibility and should therefore be the favoured option. In this model, flexibility should always be provided by market parties (generators, retailers, independent aggregators or other service providers). As explained above, it is essential that the market-based procurement by DSOs is streamlined with the wholesale markets.

In the short term, adequate monitoring and assessment of product needs, as well as the liquidity of the market on the other hand, represent challenges for the development pathway.

9. What are the relative merits of a contracting strategy (competitive or otherwise) versus a real-time market approach to procurement of flexibility? Is the latter approach practicable?

Irrespective of the strategy applied, the activation of flexibility should be done through market-parties, in line with the fundamental of the European unbundling principles. The market-based procurement of flexibility – as it practiced in balancing markets today – represents an efficient, transparent and neutral approach, but challenges have to be overcome as mentioned above.

10 Are there any models that would enable DSOs to improve system flexibility that you think we have missed and should be considered?

n.a.

11. Are there case study examples of approaches to improve flexibility on the system that you think should be considered in this work? If so, please provide a summary of the key information and findings.

n.a.

(D) DSOs Enabling Flexibility (see section 3.2)

12. Beyond impartial provision of data to market participants, do you consider that there any other tasks for DSOs to carry out to enable the competitive provision of and access to flexibility by others?

As DSOs, even if they are not appointed as the data manager, have access to relevant data, it must be their role to share this data impartially with all relevant service providers – including retailers, aggregators and other service providers, based on the consumer's consent. From the perspective of demand-side flexibility service providers, the following data are essential:

- **Historical interval data** going at least one year back to identify patterns;
- **Real-time data** about the consumer's consumption at any moment. This data is important to give an indication, but does not need to be of settlement grade;
- **Settlement data** which can be delivered with some delay;
- **Standing data**, e.g. whether a consumer is classified as large, what tariff classes they fall into, to which network area they are connected, etc., which is information that is necessary to participate in or confirm eligibility for certain electricity programmes and products.

The role of DSOs in enabling flexibility under certain load management schemes should be further clarified in the consultation document. While the DSO is in charge of ensuring a safe and high-quality grid operation, full transparency and neutrality are required and the DSO must not conduct tasks that could be done by market actors like retailers, aggregators or other service providers.

As mentioned before, in order to enable a market-based procurement of flexibility, the DSO should be enabled to conduct adequate system monitoring to understand the flexibility needs. Also, the DSO – together with TSOs and other market parties - should ensure the alignment of local flexibility products and flexibility products at wholesale level.

(E) DSOs Providing Flexibility (see section 3.3)

13. Do you think there are situations where DSOs should be allowed to provide flexibility beyond the distribution network component, where economically efficient to do so? Please provide an explanation.

No, a direct provision of flexibility services by the DSO to other parties would lead to market distortions. It would not be compatible with the fundamental European approach to unbundling of activities.

14. Are there other examples where the DSO could provide flexibility to help to reduce the overall costs of the system?

As stated above, a provision of flexibility services by the DSO would be a market distortion and should not be permitted.

(F) Regulatory Framework (see section 4.1 and 4.2)

15. In principle, can the regulatory tools listed be used by regulators to remove barriers and facilitate the use of flexibility at distribution level?

SEDC agrees with the tools listed in the consultation document. As mentioned above, the incentive structures should also enable adequate system monitoring by DSOs as precondition for the effective market-based procurement of flexibility.

Also, the monitoring of DSO performance and a benchmarking based on specific criteria could improve transparency and help the identification of best-practice for cross-fertilisation, while taking account of specific local conditions and challenges.

16. Are there particular tools that you think would be the most effective in achieving flexibility use at distribution level? Please provide reasoning for your answer.

SEDC supports the definition of a regulatory framework that enables the market-based procurement of resources able to perform the services needed by the DSOs to manage their grids, in particular as an alternative to network-reinforcement where cost-effective.

Well-designed incentive structures for DSOs are essential in supporting both a holistic system-approach by the DSO and encourage innovation. Above all, the CAPEX-based incentives should move towards a TOTEX-approach.

At the same time, the regulatory framework for tariff structures is essential to ensure that network tariffs at least do not discourage and ideally support flexibility at the distribution level, as described above.

Crucially, SEDC underlines the role of smart metering as a pre-condition for market-related for implicit (price-driven) demand-side flexibility based.

17. Are there any other regulatory tools that have not been included and should be considered?

As mentioned above, DSOs should be enabled to conduct appropriate system monitoring. At the same time, the monitoring and benchmarking of DSO performance on specific criterial could provide useful best-practice information to DSOs and regulators, while taking account of specific local conditions and challenges.

18. Should the regulatory framework allow different solutions and combinations of tools to address the specific needs of the network?

The combination of different tools is possible and can lead to effective results. However, it is essential that all tools are streamlined with each other, and with relation to the overarching energy system needs and wholesale markets.

Generally, the regulatory framework should aim for an alignment that enable economies of scale and the streamlining with wholesale markets. At the same time, however, the framework should leave sufficient room to take account for local circumstances and encourage the piloting and development of innovative approaches and solutions.

(G) Regulatory Framework (see section 4.3)

19. Is a principles-based approach (rather than one-size-fits-all) the correct one for national regulators developing a framework for facilitating flexibility use by DSOs at distribution level?

Yes, a principles-based approach should offer the right framework while leaving sufficient room to take account of local specificities and innovation.

20. Are the principles outlined appropriate? Are there any fundamental principles that you think are missing in order to deliver maximum benefit to customers?

SEDC agrees with the outlined principles. On the DSO access to flexibility, it should be clear in the principles that this flexibility is generally operated by market actors, while DSOs are in charge of ensuring the safe and high-quality grid operation. It is essential to avoid even the perception that the DSO might be competing with market parties to procure flexibility from customers – even by a notionally "ring-fenced" subsidiary of the DSO. This is critical with a view to customer perception, as well as neutral treatment.