

The proposed EU DSO entity: what is it and what's at stake?

Introduction

In its proposed Recast Electricity Regulation,¹ the Commission aims to create a new EU-level entity for distribution system operators (DSOs) to enhance cooperation between themselves and with transmission system operators (TSOs) on planning and operation of their power networks. As proposed, this new 'DSO entity' would have a significant impact - positive or negative - on further deployment and integration of renewables, growth of demand response, decisions on grid tariffs and connection charges for prosumers, and customer data protection and privacy.

Below, we pose questions and answers on the proposal, why people should care about it, and the potential issues and risks of creating a DSO entity along the lines of the proposal. We conclude with recommendations for how the proposal must be improved if the new DSO entity is to contribute towards a smarter, flexible energy system capable of integrating more renewables.

1. What are DSOs?

There are approximately 2,750 DSOs across the EU. DSOs operate and manage energy (for the purpose of this Q&A, electricity) distribution networks, which transport small amounts of energy over short distances and (mostly) at low and medium voltage levels to households and local businesses. DSOs are different from TSOs in that TSOs operate and manage bigger transmission networks, which transport larger amounts of energy at high voltage levels over long distances. Together, transmission and distribution systems have historically provided one-way flows of energy from large centralised power plants to final consumers.

2. What is the EU-DSO entity?

The DSO entity would be a membership-based body composed of DSOs from across the EU. It would bring DSOs together at EU level to work on issues that affect distribution networks. It would have legislatively defined tasks and areas of work.

3. How would the DSO entity differ from the European Network of Transmission System Operators for Electricity (ENTSO-E)?

The DSO entity would be composed of DSOs, whereas ENTSO-E, which is also a membership based body, is composed of TSOs. ENTSO-E also has more broadly defined and prominent legislative tasks, which primarily relate to cross-border energy markets and infrastructure.

¹ Proposal for a Regulation of the European Parliament and of the Council on the internal market for electricity (recast), Brussels 30.11.2016, COM(2016)861 final.

² Network Codes that have been or are under development include: capacity allocation & congestion management; requirements for generators; electricity

4. What are the potential benefits of a new DSO entity, and why is the Commission proposing one?

To enhance cooperation between TSOs and DSOs and to coordinate DSO input at EU level.

DSOs have traditionally been passive, leaving TSOs to ensure balance between demand and supply within their zone of coverage. However, as the amount of variable renewable energy (particularly produced by consumers), smart meters, storage and electrical vehicles at distribution level increases, DSOs will need to take on more tasks to make their grids smarter, more flexible and efficient. This includes being able to manage reverse power flows from customers and exporting to transmission networks.

As DSOs take on new roles, their impacts on transmission networks increase. As power markets also become more regionalised, networks are more interconnected. Hence, more cooperation between DSOs and TSOs is required in how they operate and plan their networks, including EU level infrastructure planning (e.g. the EU Ten Year Network Development Plan).

There is also a need to ensure DSOs can provide expert input into technical rules that impact distribution networks. Experience with the development of EU Network Codes under the Third Energy Package² shows that despite the major impact of the Codes on distribution networks, DSOs have experienced difficulty in formally engaging in their development. This has not been helped by the fact that at EU level there are four different groups that represent DSOs across Europe.³

The DSO entity could also ensure a consistent direction of travel as the energy market moves towards decentralisation, more renewables and other clean technologies, digitalisation, and flexibility through:

- Cross-learning and development of best practices on how to integrate renewables, demand response, storage, electric vehicles, etc at distribution level; and
- Promoting transparency in how grid fees for consumers and producers are designed.

5. What tasks would this new EU DSO entity perform?

The Commission has proposed several tasks for the DSO entity, including:

- Responsibility for developing and proposing EU Network Codes that the Commission determines are mainly related to distribution networks;
- Participate in 'drafting committees' of all Network Codes drafted at EU level;
- Monitor and implement Network Codes for distribution networks and coordination between distribution and transmission networks, along with ENTSO-E;
- Adopt best practices on coordinated distribution and transmission network operation and planning, including data exchange and coordination of distributed energy resources;
- Identify best practices on areas of its work (as seen below in point 10); and
- Adopt an annual work programme and an annual report.

² Network Codes that have been or are under development include: capacity allocation & congestion management; requirements for generators; electricity balancing; forward capacity allocation; demand connection; operational security, planning and scheduling; high voltage direct current connections; and emergency and restoration.

³ EDSO, GEODE, CEDEC and Eurelectric.

6. The DSO entity would develop Network Codes. What are Network Codes?

Network Codes are instruments that contain legally binding measures that are intended to supplement general rules or principles contained in EU legislation. They are usually quite technical and detailed in nature, although they may have some political implications. They are adopted by the Commission as delegated acts under power conferred to it under the Lisbon Treaty (Article 290). Network Codes developed by the DSO entity would govern the conduct of the DSOs themselves, as well as other market participants such as generators, suppliers, consumers and aggregators.

7. How would the Network Codes be developed for which the DSO entity would be responsible?

First, the Commission identifies specific Network Codes it wants to prioritise. Then the Agency for the Cooperation of Energy Regulators (ACER), which brings national energy regulators together to work at EU level, would issue non-binding framework guidelines. The guidelines would ensure certain principles (such as non-discrimination) and conditions are adhered to.

Second, the Commission would ask either ENTSO-E or the DSO entity to develop and submit a proposal for a specific Network Code to ACER. If requested to, the DSO entity would convene a drafting committee to help it develop the Network Code. The drafting committee would include representatives from ENTSO-E, ACER, the DSO entity, nominated electricity market operators, and "a limited number of the main affected stakeholders."

8. Who would have the final say on the Network Codes proposed by the DSO entity?

After developing the Network Code, the DSO entity would submit it to ACER, who would then have the power to make revisions. ACER would then submit a finalised proposal to the Commission. The Commission would then consult with Member State experts in accordance with the Interinstitutional Agreement on Better Law-Making of 13 April 2016. Finally, the Commission would submit the proposal for scrutiny by the Council and the European Parliament, after which it would be adopted.

9. Who would monitor the Network Codes developed by the DSO Entity?

This is highly unclear, which is troubling. Different provisions contained in the Commission's legislative proposals ascribe various roles - sometimes overlapping - to different actors.

In the proposed Recast Electricity Directive,⁴ national energy regulators have the power to implement, but also ensure compliance with the Network Codes. In the proposed Recast Electricity Directive, however, the DSO entity is given the task of cooperating with ENTSO-E on the monitoring and implementation of relevant network codes.⁵ The proposal for a recast ACER Regulation⁶ makes things even less clear, with ACER being tasked to monitor and analyse the implementation of Network Codes, but with reference to Codes developed by the Commission on its own initiative. These different roles need to be clarified.

⁴ Proposal for a Directive of the European Parliament and of the Council on common rules for the internal market in electricity (recast), Article 59(b) and (d). Brussels, 30.11.2016, COM(2016) 864.

⁵ Proposal for a recast Electricity Directive, supra note 1, at Article 51(2)(a)

⁶ Proposal for a Regulation of the European Parliament and of the Council establishing a European Union Agency for the Cooperation of Energy Regulators (recast), Article 66(1)(e). Brussels, 30.11.2016, COM (2016) 863 final.

10. What kind of issues would be impacted by the new EU DSO entity's work?

The EU DSO entity would have primary responsibility for issues such as:

- Coordinated operation and planning of transmission and distribution networks;
- The pace and extent of integration of renewables and storage;
- Deployment of smart grids including digitalisation and intelligent smart metering systems;
- How demand response gets developed; and
- Rules around how consumer data is managed and protected, as well as cyber security.

As mentioned in point 5, however, the EU DSO entity could work on more issues through the Network Codes process if they relate more to distribution than transmission networks. This could mean that the EU DSO entity also works on, among other things:

- Harmonised rules for how the DSOs themselves impose distribution tariffs and connection charges;
- Rules for how DSOs would curtail distributed renewables, demand response and storage;
- Rules on how different market actors can provide non-frequency ancillary services;
- Rules on making more transparent network charges that DSOs impose; and
- How DSOs themselves use energy efficiency in their networks.

11. How would the new EU DSO entity be structured?

The proposal says very little about how the EU DSO entity must be structured. The recitals state that the entity should ensure representativeness among the DSOs, but the actual provisions only require the DSOs to submit 1) draft statutes, 2) a list of registered members, 3) draft rules of procedure, and 4) financing rules of the EU DSO entity. There are also no conditions or criteria for participation of individual DSOs in drafting committees to support the Network Code development process. The proposal does not mention any managing body or structure.

12. What level of independence would the DSO entity need to have?

There are no independence requirements for the DSO entity or its members. From the proposal, it appears that any DSO can become a member as long as it complies with applicable EU unbundling rules (i.e. proper independence/separation from supply and generation aspects of a single energy company of which they are also a part). This is, however, little more than a restatement of the need for DSOs to comply with existing legal obligations.

13. Would there be any safeguards to ensure smaller or independent DSOs are adequately represented?

In theory such safeguards could be included in the DSO entity's statutes. However, there are no requirements in the proposed legislation that would require this.

14. Are measures proposed to ensure stakeholders impacted by the DSO's activities can have their say?

To support the development of Network Codes, drafting committees must include "a limited number of the main affected stakeholders." However, this is vague and somewhat narrowly-tailored language, which could overly limit participation. This should be clarified to ensure that all relevant stakeholders, particularly smaller less-resourced ones, can participate.

Aside from the drafting committees, there are a number of requirements for the public to be consulted, including:

- On the DSO entity's draft statutes, list of registered members, rules of procedure and financing rules;
- When the Commission is prioritising which Network Codes it wants to develop;
- When ACER is developing its non-binding framework guidelines;
- During the Network Code development process, the DSO entity must consult extensively;
- Revisions to the proposed network code by ACER, before the final version is submitted to the Commission.

The DSO entity would also be required to explain how it takes comments provided into account, as well as make all documents and minutes from meetings related to consultations public.

15. What level of regulatory oversight is envisioned for the EU DSO entity?

There is no proposed formal regulatory oversight of the EU DSO entity, although ACER and the Commission would have some role in checking its activities.

When establishing the entity, the DSOs must submit the required documents listed in point 11 above to ACER. ACER provides an opinion to the Commission, which then provides its own opinion. Under the Lisbon Treaty (Article 288), however, opinions are non-binding.

In drafting Network Codes, the DSO entity will need to follow the non-binding framework guidelines, plus certain 'conditions' that may be imposed by the Commission. However, it is unclear what these conditions would be related to or what implications they would have. ACER must also be represented in drafting committees to support the Network Code development process. Furthermore, ACER will amend the Network Code before it submits the final version to the Commission to ensure consistency with the framework guidelines.

16. What are the potential risks of creating an EU DSO entity in line with the Commission's proposal?

There are several substantial risks of creating an EU DSO entity along the lines of what the Commission has proposed, including:

- **Conflicts of interest in the drafting of Network Codes** - Without any independence requirements, the DSO entity would be able to simultaneously lobby for its own interests while taking a leading role in drafting regulations that will affect its members. Given that it would convene drafting committees of the Network Codes, the DSO entity and its members would also hold a privileged position in drafting these rules.
- **Rules that impose barriers on competition to DSOs** - Because of its privileged position in the drafting of Network Codes, the EU DSO entity would be in a position to set the tone for rules or best practice that will significantly impact deployment of renewables and demand response - which not all DSOs are fond of. For instance, the entity would likely draft rules on grid tariffs, which they could use to disincentivise self-consumption. Many DSOs are also connected to energy suppliers, and members of the DSO entity could try to undermine safeguards to prevent improper use of consumer data. Similarly, DSOs could try to use the entity to dominate markets for aggregation, storage and EV charging infrastructure. This is exacerbated by the fact that DSOs have quite flexible unbundling rules, which allows them to maintain connections to their utility counterparts.

- **Taking away the voice of smaller and independent DSOs** - Of the 2,750 DSOs across the EU there is a wide diversity in size and type, with at least $\frac{3}{4}$ of DSOs in Europe being considered 'small'. Some DSOs are also owned by local communities, for instance through cooperatives. There is a risk that without any criteria for how the DSO entity takes decisions that the larger DSOs will exercise excessive influence and the voices of smaller independent DSOs will be shut out.
- **Insufficient regulatory oversight** - the lack of formal oversight by ACER in the development and implementation of the Network Codes exacerbate the likelihood of discriminatory treatment by DSOs.

18. How should the Commission's proposal be improved to minimise risks and maximise benefits?

- Rather than forming an official DSO entity, the Recast Electricity Regulation should provide for formal expert groups of DSOs to participate in specific instances, for instance to coordinate necessary planning and operation tasks with TSOs, and to participate along with other stakeholders in developing specific codes/guidance in a more open and transparent process.
- Instead of entrusting the DSO entity or ENTSO-E with drafting and proposing Network Codes, including convene drafting committees, ACER should convene the process. In line with this approach, the DSO entity should have a formal consultative role as a provider of expert input.
- The Electricity Regulation should require the DSO entity to act independently when carrying out legislated tasks, and contain individual independence requirements for participating DSOs through specific regulations and/or enhanced unbundling rules.
- The Electricity Regulation should require the DSO entity to develop criteria in its governing statutes on maintaining independence, and conformity with unbundling rules.
- The Electricity Regulation should require the DSO entity to ensure diverse representation of different DSOs in decision making based on geography, size and ownership.
- Criteria for participation of other stakeholders in Network Code drafting committees should be clarified to ensure adequate representation, particularly from smaller market actors.
- It should be clarified that ACER and/or national regulators should monitor implementation of Network Codes, not the DSO entity together with ENTSO-E.
- ACER should be provided with explicit power to monitor the DSO entity as it carries out its tasks, particularly to ensure it complies with criteria contained in its governing statutes, and to ensure independence of participants in the DSO entity.

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