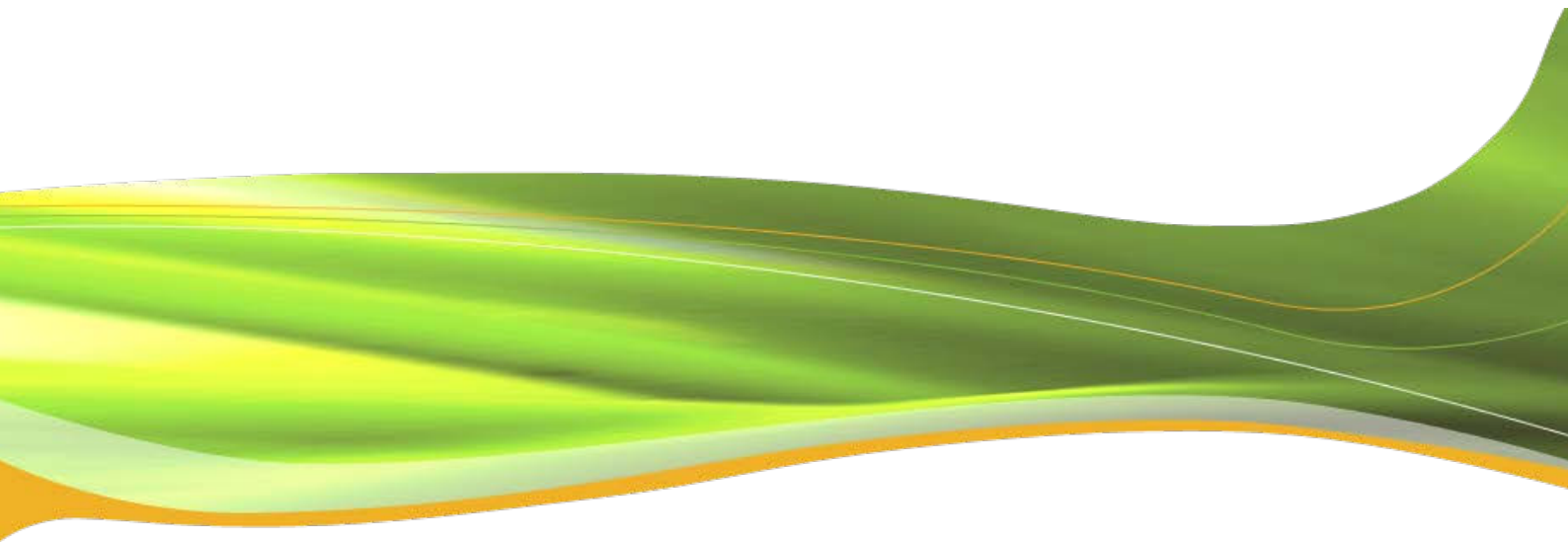


European Distribution System Operators for Smart Grids

Response to Evaluation of the TEN-E regulation

September 2017



Introduction

EDSO welcomes this public consultation on the evaluation of the TEN-E Regulation. It takes place at a decisive time for EU energy policy. The Clean Energy for All Europeans Package, currently under discussion, is a major step in the transition to a low carbon energy system throughout the European Union. The question of the necessary investments in energy infrastructure should therefore be closely related to the developments of the regulatory framework that will reshape the power sector.

The energy system has evolved since 2013

The situation of energy networks and markets in the EU has dramatically changed since the adoption of the TEN-E Regulation, in 2013. Multiple factors have contributed to completely reshape the energy system and the way its future is envisaged:

On the generation side, the rise of renewable energy sources (RES) has been witnessed throughout the EU at a fast pace. As renewable energy generation is mainly distributed, this has also changed the role of distribution networks and increased their importance. On the consumption side, consumers have also started to benefit from new opportunities, gradually becoming prosumers through the use of self-consumption, smart metering, battery storage and demand-side response.

With the leading role of distribution systems in the energy transition, the focus of EU energy policy has shifted from the wholesale market to the distribution level, the consumer and the retail market. Moreover, distribution systems will need large investments in the coming decades, twice larger than in transmission grids¹.

Therefore, the TEN-E framework must be adapted to this new context, these new challenges and these new investment needs in the field of smart grids.

TEN-E framework must evolve too

The TEN-E framework is mainly based on the assumption that transmission networks are the backbone of European energy systems. What may have been true in the past, when energy was flowing from transmission lines to the distribution system in a one-way mode, is now outdated in a system where flows are becoming bi-directional because of the rise of distributed generation, and where the consumer is now at the centre of the new energy system.

The TEN-E framework considers smart grids as a “thematic area” with a marginal place in the program, while priority is given to the “corridors” that involve high-voltage networks and interconnectors. This paradigm should be abandoned in the reform of the TEN-E framework. Smart grids have become a central element in the energy transition and smart distribution grids will be instrumental in placing the consumers at the centre of the future European energy system. This should be reflected in a new TEN-E framework that should be adapted to this paradigm shift.

Moreover, with the ongoing digitalisation of the energy system, the full reliance on physical interconnections is an outdated vision. As energy efficiency has become the fundamental pillar of the

¹ “DSO Declaration”, May 2014, <http://www.edsoforsmartgrids.eu/wp-content/uploads/public/DSO-Declaration-EDSO-CEDEC-Eurelectric-GEOGE-May-22-2014.pdf>

Energy Union, it is urgent to devote larger financial means to network projects that allow flexible solutions.

Proposed adaptations to the TEN-E framework

Enhanced inclusion of cross-border smart grid projects

The TEN-E framework should adapt to the evolution and future needs of the European energy system. As distributed generation will continue to rise and shift the focus of the energy system to local solutions, the TEN-E framework should contribute to the development of cross-border initiatives locally throughout Europe, instead of focusing only on large transmission projects.

Allowing neighbouring DSOs to build together smart grid projects would foster the uptake of smart grid solutions at local level. Moreover, with the ongoing digitalisation of the energy system, TEN-E programs should also support initiatives that bring together local actors throughout the EU but that not necessarily linked through a physical connection.

Furthermore, the TEN-E framework should also consider (cross-)regional cooperation, and smart grid projects should also benefit from support if they cross internal borders, as barriers to innovative projects exist even within Members States.

Procedures for DSOs

As cross-border exchanges represent a real challenge for distribution systems, cooperation among DSOs should also be facilitated by TEN-E programs. Specific support designed for smart grid issues should be provided to DSOs that enter into projects having a real added value for the EU energy system.

This is particularly important as DSOs face strong constraints when engaging in cross-border cooperation. The first one is a duplication of the administrative burden due to the strict regulatory frameworks that apply to DSOs. Another key issue is the question of financing for DSOs, as their remuneration is essentially based on national regulated revenues. TEN-E programs should tackle these issues of regulatory barriers and financial uncertainty by easing processes for cross-border smart grid initiatives.

This would create a level-playing field with transmission projects that are currently supported by the Connecting Europe Facility program, which benefit not only from financing means but also from administrative arrangements facilitated by the European Union. As they are contributing to a significant extent to the fulfilling of current EU energy objectives, smart grid programs should therefore benefit from tailor-made support.

Eligibility criteria

Above all, the most immediate barrier to the development of smart grid project under the TEN-E framework is its eligibility criteria. The criteria laid down in the TEN-E Regulation to define which initiatives can be endorsed are too constraining with regards to the concrete needs of smart grid networks.

The voltage criterion, defined in Annex IV to the TEN-E Regulation, prevents smart projects to concentrate on low-voltage networks, although numerous initiatives taken at voltage levels under

10kV could still have a significant impact for EU energy policy. Among others, they could allow a close involvement of customers, prosumers and local energy communities. This criterion is detrimental to the building of European smart networks and initiatives to support smart distribution grids at low-voltage level should be integrated in the TEN-E framework.

Moreover, the second paragraph of Article 4 of the TEN-E Regulation defines a list of 6 criteria that should apply to projects of common interest in the field of smart grid. While these criteria are relevant as such, this article obliges smart grid projects to address all these use cases and prevent other projects that may carry out a more limited array of activities, but which are very relevant to one cross-border situation.

Removing these barriers to smart grid infrastructure could considerably increase the interest of DSOs in the TEN-E framework. This would realign the rationale of the TEN-E framework with the current debate on the future of the EU energy system and with its needs in terms of financial and administrative support.

Finally, EDSO would like to provide in the upcoming section a few examples of amendments that would allow the Regulation to take on board the comments formulated in this position paper.

Suggested Amendments to the TEN-E Regulation related to the eligibility criteria

Current regulation	Suggested Amendment
<p style="text-align: center;"><i>Article 4</i></p> <p style="text-align: center;"><i>Criteria for projects of common interest</i></p> <p>[...]</p> <p>2. The following specific criteria shall apply to projects of common interest falling within specific energy infrastructure categories:</p> <p>[...]</p> <p>(c) for electricity, smart grid projects falling under the energy infrastructure category set out in Annex II.1(e), the project is to contribute significantly to all of the following specific criteria:</p> <p>(i) integration and involvement of network users with new technical requirements with regard to their electricity supply and demand;</p> <p>(ii) efficiency and interoperability of electricity transmission and distribution in day-to-day network operation;</p> <p>(iii) network security, system control and quality of supply;</p> <p>(iv) optimised planning of future cost-efficient network investments;</p> <p>(v) market functioning and customer services;</p> <p>(vi) involvement of users in the management of their energy usage;</p>	<p style="text-align: center;"><i>Article 4</i></p> <p style="text-align: center;"><i>Criteria for projects of common interest</i></p> <p>[...]</p> <p>2. The following specific criteria shall apply to projects of common interest falling within specific energy infrastructure categories:</p> <p>[...]</p> <p>(c) for electricity smart grid projects falling under the energy infrastructure category set out in Annex II.1(e), the project is to contribute significantly to at least three of the following specific criteria:</p> <p>(i) integration and involvement of network users with new technical requirements with regard to their electricity supply and demand;</p> <p>(ii) efficiency and interoperability of electricity transmission and distribution in day-to-day network operation;</p> <p>(iii) network security, system control and quality of supply;</p> <p>(iv) optimised planning of future cost-efficient network investments;</p> <p>(v) market functioning and customer services;</p> <p>(vi) involvement of users in the management of their energy usage;</p>

Justification: For now, only a limited amount of smart grid projects have applied to the PCI list or to CEF calls. Removing the obligation to fulfill all criteria would allow a higher number of smart grid projects, with a more specific focus, to apply. A larger range of projects tackling more specific issues, that would correspond to the relevant needs on local situations, could certainly bring the same or a larger added value at EU level.

Current regulation	Suggested Amendment
<p style="text-align: center;"><i>ANNEX IV</i></p> <p style="text-align: center;"><i>RULES AND INDICATORS CONCERNING CRITERIA FOR PROJECTS OF COMMON INTEREST</i></p> <p>(1) A project with significant cross-border impact is a project on the territory of a Member State, which fulfils the following conditions: [...]</p> <p>(e) for smart grids, the project is designed for equipments and installations at high-voltage and medium-voltage level designed for a voltage of 10 kV or more. It involves transmission and distribution system operators from at least two Member States, which cover at least 50 000 users that generate or consume electricity or do both in a consumption area of at least 300 Gigawatthours/year, of which at least 20 % originate from renewable resources that are variable in nature.</p>	<p style="text-align: center;"><i>ANNEX IV</i></p> <p style="text-align: center;"><i>RULES AND INDICATORS CONCERNING CRITERIA FOR PROJECTS OF COMMON INTEREST</i></p> <p>(1) A project with significant cross-border impact is a project on the territory of a Member State, which fulfils the following conditions: [...]</p> <p>(e) for smart grids, the project is designed for equipments and installations at high-voltage and medium-voltage, or low-voltage level. It involves transmission and or distribution system operators from at least two Member States, which cover at least 50 000 users that generate or consume electricity or do both in a consumption area of at least 300 Gigawatthours/year, of which at least 20 % originate from renewable resources that are variable in nature.</p>
<p>Justification: As the energy transition strongly relies on technologies that are linked to the low-voltage level of the power system -distributed RES, EVs, demand response, battery storage, digital solutions- the TEN-E framework should be opened to smart grid projects that relate neither to high nor medium voltage networks. These initiatives should have the opportunity to be classified as Projects of Common Interest and supported by the TEN-E framework.</p> <p>In parallel, these projects should be allowed to apply without necessarily bringing together TSOs and DSOs, as projects involving cross-border DSOs would already be subject to substantial constraints despite their potential added value for the European energy system. The obligation to involve high voltage infrastructure adds an unnecessary burden to smart grid projects.</p>	

EDSO's response to the [online consultation](#)

[Identification](#)

1. Are you replying as:

- a private individual
- an organisation or a company
- a public authority or an international organisation

2. Please indicate your name, the name of your company, organisation, or institution for which you respond to this consultation.

EDSO for Smart Grids

3. Is your organisation included in the Transparency Register?

If your organisation is not registered, we invite you to register here, although it is not compulsory to be registered to reply to this consultation. Why a transparency register?

- Yes
- No
- Not applicable

4. Contact email address

info@edsoforsmartgrids.eu

5. Where are you based and/or where do you carry out your activity?

[...]

Belgium

[...]

6. Your contribution,

Note that, whatever option chosen, your answers may be subject to a request for public access to documents under Regulation(EC) N°1049/2001

Can be published with your personal information (I consent the publication of all information in my contribution in whole or in part including my name or my organisation's name, and I declare that nothing within my response is unlawful or would infringe the rights of any third party in a manner that would prevent publication)

can be published provided that you remain anonymous (I consent to the publication of any information in my contribution in whole or in part (which may include quotes or opinions I express) provided that it is done anonymously. I declare that nothing within my response is unlawful or would infringe the rights of any third party in a manner that would prevent the publication.

7. Do you have personal knowledge of the TEN-E Regulation and the PCI framework introduced by the regulation?

Yes

No

8. Do you have any experience in participating in a public consultation process, as part of permit granting, for an energy infrastructure project in your area or elsewhere?

Yes

No

Relevance and coherence

9. Do you know of any national or local policies that conflict with the idea of enhancing trans-European energy infrastructure?

Yes

No

For example, the split between the German-Austrian bidding and price zone will avoid to refurbish and enhance the German as well as the Austrian Transmission and Distribution grids.

Another example comes from Sweden. Although not cross-border, it shares the same characteristics and issues as a TEN-E situation: in May 2017, a decision was taken by a Swedish TSO that they will not invest in a new cable connection to Gotland island in Sweden. As a consequence, it is not possible to connect and export newly installed renewable energy to the Swedish mainland. The new Gotland connection was to facilitate export of additional renewable energy, mainly windpower.

10. Do you think the implementation of the trans-European energy infrastructure which allow for interconnecting of national energy networks improves the energy systems and contributes to keeping energy prices in check?

- Yes, I am aware of greater energy interconnection across the EU which helps to introduce more market competition
- Yes, I am aware that reinforcing our energy networks makes the system more secure
- Yes, I am aware that energy networks are becoming more integrated but I was unaware of the benefits that such integration brings
- No, I was not aware that markets across Europe were becoming better interconnected and more integrated

11. Do you think the implementation of the TEN-E Regulation and development of trans-European energy infrastructure is helping Europe to develop more renewable energy?

- Yes, I am aware of greater energy infrastructure across the EU which facilitates the development of renewable energy
- Yes, I am aware that renewable energy development has increased but was unaware of the connection to trans-European infrastructure
- No, I was not aware of the role for the trans-European energy infrastructure in enabling renewable energy development

12. One of the aims of the TEN-E Regulation is to improve the transparency of the planning and development of energy infrastructure projects. Have you noticed any change in the transparency of the planning and building process since the TEN-E Regulation was implemented in 2013?

- Yes, energy infrastructure planning and building has become more transparent in recent years
- Yes, opportunities for public participation in energy infrastructure development (e.g. public meetings, questionnaires, information notices) have increased in recent years
- No, I have not noticed any changes with regard to transparency of planning and building of energy infrastructure in recent years

13. Do you feel that there are sufficient possibilities in your country to provide input into the planning and building process of energy infrastructure projects?

- Yes, there are many possibilities to get involved in energy infrastructure planning and building (e.g. public meetings, questionnaires, information notices)
- There may be sufficient possibilities to get involved in energy infrastructure planning and building but I am not aware of them
- No, I would like to see more opportunities to participate in energy infrastructure development
- I am not interested in participating in energy infrastructure planning and building

Efficiency and EU added value

14. Do you think it is worthwhile for the EU to try to enhance regional cooperation to develop energy infrastructure?

- Yes, it is important for the EU to enhance regional cooperation on energy infrastructure because there are similar challenges across borders
- Yes, it is important for the EU to enhance regional cooperation on energy infrastructure because national governments do not sufficiently prioritise cross-border links
- No, there is already sufficient level of regional cooperation on energy infrastructure
- No, regional cooperation on energy infrastructure is not necessary

Alternatives

15. Do you have any suggestions on how to improve the PCI framework?

- Alleviating barriers to allow more projects to become Smart Grids PCI would encourage the participation of competing proposals having strong impact on specific criteria.
- Combination of projects having impacts on different criteria would result in a same overall impact at EU level.
- As those distributed generators and flexible sources, which are at the core of the energy transition throughout the EU, will be mainly connected at LV level, the Smart Grids PCI should enlarge its perimeter by including also the LV network.
- In addition, Smart Grids PCI projects can also have a positive impact on trans-European energy infrastructure without necessarily involving both transmission and distribution system operators, provided that they demonstrate the positive impact through an adequate cost-benefits analysis.
- Considering that PCI is targeting large scale integration of renewable energy, large-scale projects should be prioritized.

16. If you wish to add further information - within the scope of this questionnaire - please feel free to do so here.

1000 character(s) maximum

In its current form, the TEN-E framework is based on the assumption that smart grids play a limited role in fulfilling the objectives of the EU in terms of energy policy, and more specifically for a sustainable, secure, competitive and affordable supply. This vision, of smart networks playing a minor role in comparison with massive transmission infrastructure projects, is now outdated as distribution systems are at the centre of the energy transition.

Thus, an overhaul of the TEN-E Regulation and an update of this framework, considering the leading role of smart grids to fulfil the objective of EU energy policy, is necessary. Having only 2% of all PCI projects being smart grid projects does not reflect the reality of the European energy system of the future. Moreover, it puts the TEN-E framework at risk of failing its mission to provide European energy network infrastructure with the necessary investment to deliver a solid and future-proof energy market EU-wide.

17. Please feel free to upload a concise document, such as a position paper.

Please note that the uploaded document will be published alongside your response to the questionnaire which is the essential input to this open public consultation. The document is an optional complement and serves as additional background reading to better understand your position.



EDSO for Smart Grids is a European association gathering leading electricity distribution system operators (DSOs), cooperating to bring smart grids from vision to reality.

www.edsoforsmartgrids.eu