

Scoping towards potential harmonisation of electricity transmission tariff structures

CONCLUSIONS AND NEXT STEPS

December 2015

Overview

This document sets out the conclusions of the electricity transmission tariff structures scoping activity, which the Agency for the Cooperation of Energy Regulators (the “Agency”) undertook during 2015 pursuant to Article 8(6) of Regulation (EC) No 714/2009 and following Commission Decision 2014/713/EU. The Agency’s considerations and anticipated way forward have been informed by consultancy findings and recommendations, consulted through stakeholder survey based on a questionnaire and two public stakeholder events, follow up interviews, and in consultation with the European Commission and the European Network of Transmission System Operators for Electricity (ENTSO-E). The Agency concludes that the need for a Framework Guideline and a subsequent Network Code is not evident and that the existing policies, including implementation of the Agency’s Opinion No 09/2014, are sufficient to prevent potential negative effects from any lack of harmonisation in electricity transmission tariff structures. Nevertheless, and in line with the consultant’s advice and stakeholder feedback, in early 2016 the Agency will commence work on establishing a common set of transmission tariff principles in order to build a common understanding and facilitate the sharing of best practices. The conclusions of this work will be fed into the energy market reform considerations. The document sets out further steps to be undertaken during 2016 onwards.

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1 INTRODUCTION AND APPROACH

1.1 Context

Commission Decision 2014/713/EU on the establishment of the annual priority lists for the development of network codes and guidelines for 2015¹ identified rules regarding harmonised transmission tariff structures² as a priority issue for 2015. In this context, Commission Decision 2014/713/EU mentions a scoping by the Agency to prepare a framework guideline, to be finalised during 2015³.

The harmonisation of electricity transmission tariff structures has been the subject of various studies. According to some authors⁴, differences in the electricity transmission tariff structures between Member States could potentially hamper competition and further market integration and should be investigated in an all-inclusive manner. A certain degree of harmonisation has already been created through the Third Package and (on the generator charging side) with Commission Regulation (EU) No 838/2010.

1.2 Legal provisions on network tariffs

Regulation (EC) No 714/2009 on conditions for access to the network for cross-border exchanges in electricity⁵ was adopted as part of the Third Package to facilitate competitive and an integrated energy market across the European Union. It sets out a number of overarching principles for network charges. According to this Regulation, network access charges shall, among other things, promote transparency, take into account network security, reflect actual efficient costs, be non-discriminatory and non-distance related, and provide, where appropriate, locational signals at European Union level⁶. This Regulation also allows for the development of a legally binding network code on rules for harmonised transmission tariff structures⁷ and for the elaboration of a framework guideline setting out principles for such a network code⁸. Furthermore, the European Commission may adopt Guidelines determining appropriate rules leading to a progressive harmonisation of the underlying principles for setting the charges applied to producers and consumers (load) under national tariff systems⁹. Such Guidelines shall provide the minimum degree of harmonisation required to meet the aims of the Regulation and not go beyond what is necessary for that purpose¹⁰.

¹ http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.296.01.0028.01.ENG

² Please note that the focus is on tariff structures rather than tariff levels determined through the regulatory settlement schemes as noted in Commission Decision 2014/713/EU.

³ Article 1.

⁴ Please see the consultant report published alongside this document, in particular the literature review section: http://www.acer.europa.eu/Electricity/FG_and_network_codes/Documents/CEPA%20ACER%20_%20Tx%20charging_final%20report.pdf

⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0015:0035:EN:PDF>

⁶ Article 14 of Regulation (EC) No 714/2009.

⁷ Article 8(6) of Regulation (EC) No 714/2009.

⁸ Article 8(2) of Regulation (EC) No 714/2009.

⁹ Article 18(2) of Regulation (EC) No 714/2009.

¹⁰ Article 18(5) of Regulation (EC) No 714/2009.

Relevant Guidelines have been implemented by Commission Regulation (EU) No 838/2010 laying down guidelines relating to the inter-transmission system operator compensation mechanism and a common regulatory approach to transmission charging¹¹. This act outlines a common regulatory approach to transmission charges, and in particular sets out allowed ranges for charges levied on generators¹². According to this Commission Regulation, the Agency is required to monitor the appropriateness of the ranges of allowable charges and to propose a new range for these charges to be implemented in 2015¹³.

1.3 Background to transmission tariffs

Transmission tariffs enable the transmission operators to recover the allowed revenues which are usually based on the efficient costs for operating the network, including an appropriate return on network investment. In addition, tariffs should also provide economic signals for the efficient operation and location of producers and consumers, where appropriate.

In practice, the allowed revenues are recovered through tariffs applied to generators (G) and load (L). In all countries, the L element of the charge represents the major share of the overall tariff, while a G-charge is implemented in some Member States¹⁴. In addition to the G-charge, generators are usually also levied ancillary services, transmission losses and connection charges, which are excluded from the ranges set out in Commission Regulation No (EU) 838/2010.

¹¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:250:0005:0011:EN:PDF>

¹² ANNEX, Part B of Commission Regulation (EU) No 838/2010.

¹³ Part B (4) and (5) of Commission Regulation (EU) No 838/2010.

¹⁴ Based on Agency's G-charge monitoring activity. Please see Annex A of the Agency's Opinion No 09/2014: http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2009-2014.pdf.

As required by Commission Regulation (EU) No 838/2010, the Agency published an Opinion in April 2014 on the appropriate range of G-charges for the period after 1 January 2015¹⁵. The Opinion¹⁶ concluded that the increasing interconnection and integration of the European electricity market implies an increasing risk that different levels of G-charges could distort competition and investment decisions in the internal market. Consequently, the Agency recommended that energy-based G-charges should not be used to recover infrastructure costs and thus, except for the recovery of losses or ancillary services costs¹⁷, they should be set at 0 €/MWh. The Agency also concluded that different levels of power-based or lump-sum G-charges¹⁸ can be used and that it is not necessary to propose restrictions on such charges as long as they reflect the costs of providing transmission infrastructure services to generators, are properly justified and set in an appropriate and harmonised way¹⁹. The Agency notes that in 2015, the Romanian National Regulatory Authority (NRA) voluntarily implemented Agency's Opinion No 09/2014^{20, 21}.

¹⁵ Opinion of the Agency for the Cooperation of Energy Regulators No 09/2014 of 15 April 2014 on the appropriate range of transmission charges paid by electricity producers:

http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2009-2014.pdf

¹⁶ Based on the monitoring activity and on the economic assessment of charges at national and transnational levels.

¹⁷ As set out in Commission Regulation (EU) No 838/2010, Annex Part B Point 2, G-charge excludes ancillary services, transmission losses and connection charges.

¹⁸ For more detail on the conclusions on the lump-sum G-charge, please see the Agency's Opinion No 09/2014.

¹⁹ In its Opinion, the Agency emphasizes that *“even power-based G-charges may have significant distortive effects on investment decisions if they are not cost-reflective, lack proper justification or are not set in an appropriate and harmonised.”* The Agency therefore recommended that reasonable reporting requirements are defined in the future legislation to support the Agency's monitoring and does not exclude the possibility to propose potential future amendments of the guidelines on transmission charging in Part B of the Annex to Commission Regulation (EU) No 838/2010, should further improvements and further harmonisation of regulatory practices be needed.

²⁰ The implementation will take place in two stages. From July 2015 the G-charge structure is to include only the short-term marginal costs, i.e. grid losses and congestions. The second step is foreseen to be applied from July 2016 when a binomial tariff will be introduced with the aim that the power based component of the transmission charge paid by the producers to recover the operating and infrastructure costs. Please see ANRE Order no 89/15.06.2015 for more information <http://213.177.15.183/PublicLists/Ordin>

²¹ We observe no action from the Commission regarding Commission Regulation (EU) No 838/2010 amendment in order to implement the recommendations in the Agency's Opinion.

1.4 Scoping activity approach

In January 2015, the Agency appointed Cambridge Economic Policy Associates (CEPA, the consultant) to conduct a study on ‘Scoping towards potential harmonisation of electricity transmission tariff structures’. The purpose of the study was to inform the Agency’s considerations in relation to transmission tariff structure harmonisation by assessing whether increased harmonisation across all the Member States and Norway would be beneficial, and if so, by recommending the most appropriate policy options, including retaining the *status quo*, to the Agency. A Steering Committee, comprised of NRA tariff experts, acted as an advisory body throughout the project. Two public stakeholder events²² and a stakeholder survey²³ (followed by interviews with selected stakeholders) were also conducted to gauge stakeholder views. The consultant’s final report is published alongside this document²⁴.

The focus of the consultant study was to analyse the extent to which current tariff structures enable or impede market integration, effective competition and effective functioning of the EU Internal Electricity Market (IEM), and to identify and develop proportionate policy options to address any shortcomings that may be identified²⁵. In analysing the potential impacts, CEPA also gave consideration to whether any problems identified may also be a consequence of possible shortcomings of tariff structures in Member States, rather than an absence of harmonisation.

The consultant considered the impact of the current tariff structure differences on investment and operational decisions of load and generation through case study evidence, stakeholder survey and interviews and public workshops. The consultant supplemented this evidence with a theoretical analysis and literature review of the principles and objectives for transmission access pricing and tariff structure design²⁶.

²² Please consult the event public pages for further information and material presented available at <http://www.acer.europa.eu/Events/ACER-workshop-on-electricity-transmission-tariff-harmonisation/default.aspx> and <http://www.acer.europa.eu/Events/2nd-ACER-workshop-on-electricity-transmission-tariff-harmonisation/default.aspx>

²³ The survey was sent to close to 300 stakeholders in all Member States, representing consumers, generators (vertically integrated and independent), suppliers (including independent), trade bodies and associations (including large industry user and consumer protection, and pan European bodies), TSOs and NRAs. The survey template is available at:

<http://www.acer.europa.eu/Events/ACER-workshop-on-electricity-transmission-tariff-harmonisation/Documents/ACERTariffScopingStudyQuestionnaire.pdf>

²⁴ Please see footnote 4 for the link to the final CEPA report.

²⁵ The charging mechanism for generators and other users connected to the distribution networks was out of the scope of the study initially. Some consideration was given to distribution arrangements following stakeholder feedback.

²⁶ Please note that the focus of the study was on tariff structures rather than tariff levels determined through the regulatory settlement schemes.

The CEPA's study, Frontier Economics' report²⁷ commissioned by Energy Norway in response to CEPA draft report²⁸, considerations within the Agency's working group comprised of NRAs, followed by interactions with ENTSO-E, the European Commission and other stakeholders, form the basis for this document and the anticipated way forward. Two public workshops were organised in order to consult the stakeholders, first on the CEPA preliminary and then on final findings. Follow up stakeholder input to the Agency, through bilateral meetings or written submissions, were also considered.

2 SUMMARY OF CEPA FINDINGS AND RECOMMENDATION

The following sections summarise the main findings and recommendations as set out in the CEPA study. For more details, including assessment criteria or methodological approach, please consult the published document²⁹.

2.1 Findings

CEPA concludes that economic theory and stakeholder feedback indicate potential for distortions in both market participants' investment and operational decisions, particularly generators, caused by absence of harmonised tariff structures.

The consultant found that in theory there may be negative operational impacts which arise from a distorted dispatch of electricity generation, due to differences in non-cost reflective generation tariffs between Member States or bidding zones (in particular in case of energy based generation tariffs³⁰). CEPA concludes that the magnitude of the potential operational inefficiencies is uncertain and that it depends on market conditions under which cross-border competition takes place and on whether tariff differentials are significant enough relative to other commercial influences.

CEPA has not found direct evidence of negative investment impacts arising from the current absence of tariff structure harmonisation. The consultant notes that there are indications that current structures, most likely in combination with other factors, could potentially lead to distortions and inefficient outcomes. It also notes that it is difficult to establish whether, or to what extent, the absence of tariff structure harmonisation and/or other factors (such as national taxation or generation support mechanisms) would lead to inefficient decisions.

²⁷ Frontier Economics' report supports CEPA's findings, however note the recommendations do not capture all the relevant matters. For example, the recommendations did not explore the charges exempt under Commission Regulation (EU) No 838/2010, namely connection charges, ancillary services and transmission losses. Please see the report for further details published at http://www.acer.europa.eu/Electricity/FG_and_network_codes/Documents/T%20tariffs%20final%2009-Jul-2015.pdf

²⁸ Draft CEPA report can be seen at <http://www.acer.europa.eu/Events/2nd-ACER-workshop-on-electricity-transmission-tariff-harmonisation/Documents/CEPA%20Scoping%20Draft%20Final%20Report.pdf>

²⁹ Please see footnote 4 for the link.

³⁰ Please refer to the consultant's document for more detail.

The consultant concludes that the current arrangements are unlikely to be harmful for the IEM today whilst the supporting analysis indicates that these potential distortive effects are more likely to occur in the future, as market integration increases and other elements of IEM arrangements become more aligned. CEPA notes a number of conditions that would need to hold for these effects to apply in practice.

Finally, CEPA observes a lack of consistency in the principles which individual Member States apply in the design of their tariff structures implying absence of agreement on the balance between the common policy objectives for transmission tariffs set out in European legislation³¹. CEPA notes that the challenge in identifying a theoretically “optimal” electricity transmission tariff structure will depend on harmonisation of other elements of current and future electricity market design in Europe. It is noted that the added value of harmonised tariff structures would be dependent on other conditions and harmonisation of other policy factors that influence investment and operational decisions.

2.2 Policy options

Although CEPA has not found evidence of welfare losses directly attributable to the absence of harmonised transmission tariffs, it notes concerns have been raised which may merit some policy response. The consultant grouped a number of policy options for further tariff harmonisation into shorter-term and longer-term regulatory responses to the identified issues.

The benefits of a **shorter-term** regulatory response on harmonisation (e.g. removal of G-charges or greater harmonisation of the G-L split³²) are, in the consultant’s view, unlikely to outweigh potential costs. Given a general lack of evidence and certainty that differences in tariff structures in practice lead to inefficient outcomes, CEPA concludes that the benefits of shorter-term regulatory response would be highly uncertain. Equally, the consultant notes a number of potential risks and unintended consequences associated with such changes, as well as high costs. The consultant notes that the existing policies, in particular the ranges for G-charges set out in Commission Regulation (EU) No 838/2010, should be sufficient to help prevent potential negative effects in the short term. CEPA supports the Agency’s continued monitoring of the ranges of G-charge levels and its stance that energy-based G-charges should not be used to recover infrastructure costs, given conflicts with cost reflectivity principles.

In the **longer term**, CEPA believes that there is a stronger case for further harmonisation, based on the need for greater consistency and application of tariff structures that reflect the costs generated by market participants’ decisions. CEPA proposes that Member States establish a clear and harmonised set of principles based on an agreement on the balance between the policy objectives set out in the Third Package³³. Specifically, the consultant proposes cost reflectivity and cost recovery, as well as transparency and predictability, as key factors to be considered. CEPA highlights various practical issues, such as different voltage classifications between transmission and distribution and adverse effects of change to existing terms of use, and notes the importance of approaching the tariff structures as a longer term consideration.

³¹ Article 14 of Regulation (EC) No 714/2009.

³² For the full list of options considered, please see full CEPA report.

³³ Article 14 of Regulation (EC) No 714/2009.

The consultant notes a significant ongoing programme of regulatory policy change already underway to support the development of the IEM, namely a number of Network Codes being currently developed and imminently coming into force, and the European Commission's recently launched consultation on potential policy measures associated with the Energy Union strategy and future redesign of the IEM³⁴. CEPA concludes that an agreement on the tariff principles, and its potential implementation in the future, could support this longer term IEM vision.

2.3 Recommendation

CEPA recommends that the Agency keeps the issue under review by developing a roadmap for harmonisation, starting with an agreement on a harmonised set of transmission tariff principles, which can facilitate development of a harmonised approach, if needed. The consultant notes that there will be greater clarity on other elements of policy change in European electricity markets towards the end of 2016 and ideally many of the elements under consideration would be addressed ahead of an agreement on tariff principles. CEPA recommends discussion on the principles starts in the second half of 2016.

3 CONCLUSIONS AND WAY FORWARD

After considering CEPA's findings and recommendations and other input, including the Frontier Economics' report, stakeholder feedback and gradual convergence of stakeholder views observed during public stakeholder events and bilateral discussions, and in consultation with the European Commission and ENTSO-E³⁵, the Agency concludes that:

The need for a Framework Guideline and subsequent Network Code is not evident at the moment

The Agency notes a potential for the current absence of harmonised tariff structures to impact negatively on the efficiency of the IEM, potentially distorting the market participants' investment and operational decisions. However, according to CEPA's investigation, the distortions are not evident at the moment and highly uncertain in the future, and the evidence and associated impact are not easily identifiable or are not material. The Agency notes the current ambitious market reform including the Network Codes currently being progressed and the Energy Union Strategy, and considers it reasonable to deliver those first. In that regards, the Agency agrees with CEPA's conclusion that any potential distortions, or benefits of harmonisation, would be more easily appraised in the future, as markets become more integrated and reforms are delivered. Equally, a visible and measurable distortion from the absence of, or a benefit of further harmonisation, should be observable in order to set out clear and objective principles needed for the development of a Network Code. In conclusion, the Agency considers a formal Framework Guidelines process to be a disproportionate response at this stage.

The existing policies and regulations, supported by the amendment to Commission Regulation (EU) No 838/210 in line with Agency's Opinion No 09/2014, are currently sufficient to prevent potential negative effects

³⁴ <https://ec.europa.eu/energy/en/news/new-electricity-market-consumers>

³⁵ Please see the following link for the ENTSO-E key messages: http://www.acer.europa.eu/Electricity/FG_and_network_codes/Documents/150917_Tariff%20meeting%20ENTSOE-ACER-EC_Slides.pdf.

The Agency notes CEPA's recommendation regarding the available policy options, their potential costs and the highly uncertain benefits associated with them. The Agency recalls its Opinion No 09/2014 of 15 April 2014³⁶, which, among other conclusions, noted that energy-based G-charges should not be used to recover infrastructure costs³⁷ and should be set to €0/MWh. The Agency considers that amending the relevant legislation in line with this Opinion and continued G-charge monitoring by the Agency³⁸ are a proportionate response at this stage.

Work on establishing a common set of transmission tariff principles will commence in early 2016 in order to build a common understanding and facilitate the sharing of best practices

The Agency notes CEPA's recommendation to start work on facilitating a common understanding on a harmonised set of principles from the second half of 2016. The Agency notes that there is currently no disagreement on the way the principles are applied among Member States, but rather that there are various ways to implement them. Nevertheless, as the market reforms progress, the commonalities and differences in the way Member States approach tariff structures and design are likely to become more significant as observed by CEPA.

During the course of 2016, the Agency will initiate work on a common set of transmission tariff principles, with an overall goal to establish and adopt a harmonised set of tariff principles for the relevant aspects, allowing an efficient balance between the IEM policy goals. The Agency notes that before progressing with tariff harmonisation, the overall objective of network tariffs needs to be considered in conjunction with the European Commission's new Energy Market Design initiative so that the tariff principles can support the new arrangement and address the underlying challenges and policy objectives.

In the first instance, the Agency will consider the responses to the new Energy Market Design consultation as soon as available, and consider further input in consultation with the European Commission³⁹. Following this and the next steps announced by the European Commission, the Agency will develop an elaborated 'road map' and establish whether and what form of harmonised approach may be needed.

More specifically, the following aspects may be considered in establishing a common set of transmission tariff principles:

- **Cost reflectivity principle.** Consider the role of transmission tariffs in line with the new Energy Market Design and policy objectives and identify the cost categories included in the transmission tariff. The latter would consider the types of costs included in transmission tariffs in combination with future electricity market design, such as the definition of generation charges referred to in Commission Regulation (EU) No 838/2010, and the charging method for each cost category.
- Explore various options behind the **cost recovery principle** to ensure transmission costs are recovered in the least distortionary manner.
- **Transparency and predictability.**

³⁶ Please refer to footnote 15 for the link.

³⁷ Apart from losses and ancillary services cost recovery where cost-reflective energy-based G-charges could provide efficient signals.

³⁸ As set out in Part B of Commission Regulation (EU) No 838/2010.

³⁹ Including the working level meetings with the European Commission already planned for early 2016.

As part of this work, the Agency may consider the definition of generation charges referred to in Commission Regulation (EU) 838/2010, charges exempt under this Regulation (connection charges, ancillary services and transmission losses), matters raised in relation to potential distortions related to distribution and transmission interactions if they become apparent, and any other matters of concern identified prior or during this work.

The conclusions of the Agency's work on a common set of transmission tariff principles will be fed into the new Energy Market Design considerations, in coordination with CEER's work on distribution tariffs

We note the European Commission's consultation on a new Energy Market Design⁴⁰ sets out a vision for a more forward looking climate change policy and electricity market design, including the need for efficient short-term markets and long-term price signals to drive efficient investment and achievement of the climate change targets. Network tariffs can play an important role in integrating market players and accommodating dynamic elements and new trends.

We note the joint ACER-CEER response to the Consultation, setting out European energy Regulators' commitment in ensuring the benefits of market integration for consumers⁴¹. The response also sets out CEER's intention to deliver work on the best practice in Distribution tariff design. The Agency's transmission tariff work, as set out in this document, will be complemented by CEER's work, towards the overall network design best practice and contribution towards the new Energy Market Design challenges.

Furthermore, work on establishing a common set of transmission tariff principles could support the new Energy Market Design vision by:

- helping deliver efficient long-term signals for the use and development of electricity transmission system;
- facilitating more efficient investment and operational decisions by variable renewable and more flexible electricity resources; and
- contributing to holistic regional/European-wide approach to market design and regulatory frameworks.

⁴⁰ http://europa.eu/rapid/press-release_IP-15-5358_en.htm

⁴¹ The response is available at <http://www.acer.europa.eu/Media/News/Pages/CEER-and-ACER-publish-a-joint-response-to-the-European-Commission%E2%80%99s-consultation-on-a-new-energy-market-design.aspx>