

Call for Tender:

Study: How to design network tariffs that are fair for consumers and ready for the energy system of the future

Terms of Reference (ToR)

A. Background

The structure of energy bills is undoubtedly one of the most complex aspects of electricity markets, with consumers often unable to understand what exactly they pay for. As a matter of fact, electricity bills contain different components, ranging from the energy price to taxes and levies imposed by national governments. Another part of the bill is constituted by network tariffs, which refer to the costs consumers pay to distribution and transmission operators for the maintenance and the functioning of the system that should deliver reliable electricity supply.

Recent research shows that on average network tariffs make up 30% of the electricity bill in Europe¹; further breaking down the data it is possible to notice that only 2% goes to Transmission System Operators (TSOs), while the rest 28% is earned by Distribution System Operators (DSOs). Therefore, the bulk of network tariffs finances distribution operators' activities. It is often unclear whether network revenues are simply used to cover the costs Distribution System Operators incur and to what extent they constitute an extra profit. A clear example of this problem can be found in recent study analyzing the level of distribution tariffs in the UK, demonstrating that consumers are overpaying for the services delivered by system operators².

The impact of network tariffs on consumers' bills as well as recommendations for network tariffs that are fair for household consumers require further research. Better understanding of the tariff design is needed not only with regards to what consumers currently pay for networks but also in the view of future changes in the network tariff structure that will be required due to rapid changes in the electricity market.

New technologies such as demand response and smart meters have the potential to empower consumers, increasing energy savings and lowering bills. Also, consumers are getting more interested in cutting their energy bills by producing their own electricity. These developments will inevitably lead to changes in the network tariff structure. We are already witnessing a proliferation of different methodologies to apply network tariffs: time of use and dynamic tariffs, capacity based and volumetric

¹https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202016%20-%20ELECTRICITY%20AND%20GAR%20RETAIL%20MARKETS.pdf

² <https://wearecitizensadvice.org.uk/energy-consumers-missing-billions-875c433fc34c>

dynamics. The advent of new services and new market players is set to radically transform the role consumers play in future markets. Investigating whether the amount consumers pay to DSOs proportionately reflects the usage they make of the network and which type of tariff structure is fair for consumers are therefore the main aspects this research project should address.

The ‘Clean Energy for All Europeans’ package envisages measures to enhance the level of consumers’ protection in electricity markets, but further action is needed to ensure that network tariffs are cost-reflective and do not constitute a burden for household consumers. BEUC has been advocating for network tariffs that better reflect real use of the grid. They should be redesigned to reward flexibility from consumers who engage in self-generation or demand-side flexibility. However, the redesign of network tariffs must not unduly increase the financial burden of households with a low level of electricity consumption or households living in remote areas. In order to develop these principles further, BEUC decided to commission a research which should analyse the fairness of current network tariffs design and provide recommendations on how to redesign these tariffs.

B. Objective

The main objective of this research is to assess what is a fair distribution of the network costs and which network tariffs (ie. distribution and transmission tariffs) align with that fair distribution.

As this research topic is very wide, we have narrowed it down to a key research topic: What is the impact of the most common tariff structures on consumers, and what are their distributional effects? This research should also explore the short-term and long-term impacts and risks, how resilient they are to foreseeable consumer models (through new uses such as electric vehicles, batteries, self-consumption, and smarter homes and appliances) and provide recommendations on how to adapt network tariffs.

C. Methodology

The contractor will map what tariff structures are used across EU Member States. Examples from outside the EU could be included if these provide new information, for example for those tariff structures that are still novelty in the EU.

The contractor will then select countries that can illustrate and provide solid evidence about the impact of each main type of tariff structure on consumers. The evidence will be from a literature review where available, or other trusted sources, both with a critical approach. In the absence of publicly available evidence, the analysis can be based on theoretical approach, and the absence of relevant evidence should be made explicit by the contractor.

The contractor will provide a comparison of the real impact in terms of benefits, costs, risks and opportunities, of different tariff structures on different consumer groups in several EU countries. In order to meet the objective, the analysis should cover time of use and dynamic tariffs, capacity based and volumetric, as well as combinations of these tariffs. For example, for dynamic tariffs, opportunities

should include the ability to reduce costs when installing more flexible equipment (eg batteries), and risks, likelihood of facing higher costs for those not able to respond to price hikes.

Finally, the contractor will look at the distributional impact of the tariff structures to different consumer groups. The exact groups will be discussed with the contractor, but it should de minimis include low income and high electricity need households, self-consumers and residential compared to industrial consumers.

D. Timeline

The project is expected to be finalized within 3 months after the kick-off meeting.

BEUC organizes a kick-off meeting with the contractor	Early April
The contractor presents the interim report to BEUC	May
The contractor presents the draft final report to BEUC	June
The final report is submitted to BEUC	End June

E. Costs

The overall cost for the delivery of the **final report** should not exceed €8,250 (VAT excluded). A full outline of the costs shall be submitted with the proposal giving details of how the costs are to be attributed.

F. Contractor requirements

The successful contractor must be financially viable, have an appropriate track record in this type of research. The contractor should provide information on the experience of the personnel who will manage and undertake the project.

G. Publication and dissemination of the report

The contractor is expected to send the report electronically in pdf and in word version. The copyright of the report is granted to BEUC under a non-exclusive license. The authors are free to use the data collected in the context of the research project for publication in peer reviewed journals provided two conditions:

- Inform BEUC before any publication;

- Indicate clearly that the article does not reflect the position of BEUC or its members.

The interim and final reports will be disseminated to BEUC member organisations. They will also support communication activities of the organisation both at national as well as at European level. Such communications activities could entail publishing parts or the entire report. The outcome of the research project will also form the factual basis of advocacy material such as facts sheets, press releases and position papers.

H. Contact persons:

For any question, please contact:

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Offers should be sent by 18 March 2018 to energy@beuc.eu