

Commission Discussion Paper for the review of the default Primary Energy Factor of 19/05/2016

EURELECTRIC comments

July 2016

EURELECTRIC is the voice of the electricity industry in Europe.

We speak for more than 3,500 companies in power generation, distribution, and supply.

We Stand For:

Carbon-neutral electricity by 2050

We have committed to making Europe's electricity cleaner. To deliver, we need to make use of **all low-carbon technologies**: more renewables, but also clean coal and gas, and nuclear. Efficient electric technologies in **transport and buildings**, combined with the development of smart grids and a major push in **energy efficiency** play a key role in reducing fossil fuel consumption and making our electricity more sustainable.

Competitive electricity for our customers

We support well-functioning, distortion-free **energy and carbon markets** as the best way to produce electricity and reduce emissions cost-efficiently. Integrated EU-wide electricity and gas markets are also crucial to offer our customers the **full benefits of liberalisation**: they ensure the best use of generation resources, improve **security of supply**, allow full EU-wide competition, and increase **customer choice**.

Continent-wide electricity through a coherent European approach

Europe's energy and climate challenges can only be solved by **European – or even global – policies**, not incoherent national measures. Such policies should complement, not contradict each other: coherent and integrated approaches reduce costs. This will encourage **effective investment** to ensure a sustainable and reliable electricity supply for Europe's businesses and consumers.

EURELECTRIC. Electricity for Europe.

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EURELECTRIC comments on the Commission Discussion Paper for the review of the default Primary Energy Factor (PEF) Version 19/05/2016 - European Commission, DG Energy

EURELECTRIC strongly welcomes the European Commission's decision to review the methodology for the calculation of a Primary Energy Factor (PEF) in the context of the preparations of the upcoming legislative proposals on the 2030 Climate and Energy Framework. The European power industry has repeatedly called for an in depth analysis and an improved approach to this important policy instrument.

In light of the Discussion Forum on the future methodology of PEF calculation which took place on 17 June, EURELECTRIC highlights the following key messages:

1. The Primary Energy Factor (PEF) has proved itself to be an instrument that has a major impact on technology competitiveness and the energy carrier choice of final customers. The Commission's recognition that decarbonised electricity will have a growing role to play in decarbonising the energy demand side sectors of the European economy must be appropriately recognised and taken into account in the PEF review process. It is crucial to avoid a fossil fuel lock-in effect by not adequately recognising the impact of the PEF on the achievement of the EU's climate change targets. We believe that this would not only hinder the decarbonisation agenda, but would also prolong the EU's import dependence on fossil fuels.
2. As is the case under the current legislation, EURELECTRIC underlines the importance to maintain the flexibility granted to Member States to apply a different coefficient, provided that they can justify such application in the context of electrification, energy savings under the Energy Efficiency Directive (EED) and when applying a PEF in buildings (such as under the EPBD). EURELECTRIC strongly supports the Commission's stance to maintain this flexibility as any other option would be unacceptable for EU Member States in the context of applying a single value across the EU.
3. The four calculation methods selected for examination by the Commission differ with respect to options "system boundaries", "accounting method for RES" and "accounting method for CHP". Method 4 is advocated by the Commission, however:
 - a. Applying the PEF value of '1' to renewable energy sources does not seem appropriate. According to the Commission, "*The role of RES for sustainable and climate policies is already recognised by the assumption of full conversion efficiency (100%).*"¹
In a policy environment which seeks to move away from using fossil fuels, we believe that it is not appropriate to assume virtually the same value (1 vs 1.1) for direct fossil fuel use versus energy from renewable sources. We therefore strongly advocate a methodology which applies the 'Zero equivalent' method as this would also recognise the unique characteristic of renewable energies in that they are not a constrained resource (unlike

¹ Quote from the Commission proposal presented on 17 June.

fossil fuels) and they are also produced domestically. Finally, a '0' value for renewables would better meet the evaluation criteria identified by the Commission in its proposal.

- b. The Commission proposal recommends the value of 2.2 for the default coefficient in the EED for electricity production (on the basis of the PRIMES 2012 Reference Scenario). This value corresponds to a mid-way PEF calculated using method 4 for the years 2017 and 2018. We believe that this is a short-term vision that is not consistent with the time horizon of consumer decisions and the lifetime of equipment in the field of energy efficiency. Therefore, it would be much more relevant to choose a longer-term value (at least 2020) for guiding current and future choices.
4. We recognise the Commission's proposal to apply the PEF as a calculated value and for it to be revised regularly. We are convinced that it is necessary for the future PEF methodology to adequately reflect the strong decarbonisation of the European power sector and the increasing share of renewable energy in the power generation mix. It should also provide an incentive to invest in energy using products based on carbon neutral electricity rather than continued reliance on fossil fuels. Regular reviews to reflect the fast changes in the power mixes are a necessity. In order to ensure long term consistency, the reviews should be aligned with the process agreed at under the Paris Agreement on climate change.

Furthermore, the determination of the PEF has to date been based on the PRIMES 2012 Reference Scenario. According to the study, the share of RES in the electricity generation mix of the EU28+Norway was 24 % in 2015. However, developments have shown that the share of RES in EU28+Norway exceeded 30% in 2015. Historically, the penetration of RES in electricity generation has exceeded the most optimistic predictions. Since the PEF should be amended, the relevant calculations should take into account the larger share of RES in the European generation mix. Electricity as an energy carrier should not be punished for becoming renewable and sustainable faster than had been anticipated. In this context, we believe that, in view of the fact that the PEF influences purchasing decisions for products with lifetimes of several decades, a more forward looking approach should be adopted.

5. We fully support the analyses by Fraunhofer ISI as well as the Commission to apply annual average values for time of use of energy in order to main transparency and objectivity. We are also in agreement with the Commission's proposal to apply the average market position. In the EED, the purpose of conversion factors is the comparison of energy savings and conversion to a comparable unit. The PEF for electricity is used to convert the final electricity consumption into primary energy consumption, without making a distinction between different electricity uses. Yet, as stated in the Fraunhofer report, a PEF based on a marginal market position could be estimated only for a given electricity use or appliance because the marginal PEF depends on time of electricity use and on the generating fleet management at that specific point in time. Therefore, the selection of the option "marginal" in category "market position" for the calculation of the PEF electricity is not relevant. For needs other than the EED the complexity and transparency needed in order to achieve an impartial and accurate calculation make the marginal approach unrealistic and inadequate.

6. PEFs are required to obtain comparable information on different fuels that can be used for the same service or product. It is therefore necessary to apply PEFs calculation methods that guarantee a fair level playing field between energy sources, in particular as regards system boundaries. The current Commission proposal continues to calculate final energy consumption to be equivalent to the primary energy consumption for energy carriers other than electricity. We believe that it is not adequate to take into account the life cycle efficiency for one energy carrier but not for another. The lack of data here could be addressed via default values. Otherwise, only the primary energy used within the conversion and distribution process should be considered for all energy carriers, including electricity.

7. Finally we note the Commission's decision to apply the physical energy content method defined as "the first energy (downstream) for which multiple uses are possible". EURELECTRIC reiterates that there are virtually no other (civil) uses of nuclear energy other than electricity generation. Therefore, a PEF for electricity from nuclear equal to '1' should be envisaged. This would furthermore reflect that electricity generation from nuclear sources does not cause GHG emissions.

EURELECTRIC pursues in all its activities the application of the following sustainable development values:

Economic Development

▶ Growth, added-value, efficiency

Environmental Leadership

▶ Commitment, innovation, pro-activeness

Social Responsibility

▶ Transparency, ethics, accountability



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