

Joint Letter to Representatives of the European Parliament, Council, and Commission

20 February 2018



Subject: EU Primary Energy Factor for Electricity: Key for Efficient and Renewable Heat in Europe

Dear Representatives of the European Parliament, Council, and Commission,

In view of the trilogue negotiations on the Energy Efficiency Directive (EED) review, the under-signed organisations call on the negotiators in the Council of the EU, European Parliament and Commission to:

- **Set an average EU Primary Energy Factor for electricity (PEF) of no less than 2.3 in EED Annex IV, reflecting the real efficiency of the electricity system**, through a robust and transparent methodology based on the latest available EU statistics and to be reviewed regularly to account for the changes in the average EU energy mix.
- **Ensure the EU PEF adopted in EED remains limited to EED. In EU legislation for heating (e.g. Energy Performance of Buildings Directive, Energy Labelling), appropriate methods and impact assessments should be undertaken to define adequate PEF values reflecting the seasonality of heat demand.**

In the EED, the EU PEF provides Member States with a default value to convert final energy savings into primary energy savings. The 2.0 value proposed in the EED review is based on several assumptions that artificially lower the EU PEF compared to the real efficiency of EU electricity grids. Member States can use their own national default values to more accurately reflect their national energy mixes, and the EU PEF in the EED should not be automatically used in other sectoral EU legislation (e.g. for heating and cooling) without a thorough impact assessment.

In the context of the EED, 2.3 is a more adequate value as

- **It reflects more closely the real efficiency of the electricity system¹, thus incentivising energy savings in line with the “energy efficiency first” principle.** A value of 2.0, however, underestimates the losses in the conversion and transmission of electricity, disadvantaging local solutions and hampering the deployment of efficiency measures by consumers.
- **The EU PEF is a technical instrument and should not be confused with a political one: the PEF aims to assess and provide correct information about the actual efficiency of the energy mix to inform**

¹ Distortions in the EU PEF methodology used by the Commission include: 1. Based on now outdated 2012 PRIMES projections for 2020; 2. Method accounting for electricity from cogeneration in the energy mix unfairly allocates efficiency gains to electricity generated; 3. The arbitrary geographical coverage of Norway in addition to EU-28 countries provides for a further lowering of the PEF.

investment choices. It should not be used to make political choices to promote certain solutions over others. An inadequately low and “forward-looking” EU PEF of 2.0, thus diverging from reality, would likely boost electricity demand, potentially in key sectors like heating or transport. **Depending on the electricity mix in each country, additional electricity demand may not necessarily translate in an equivalent increase in renewable electricity demand but may rather be met by the most polluting and inefficient power generation means.**

- **A realistic PEF of 2.3 promotes consumer empowerment**, by correctly informing consumers on the efficiency gains and energy bill implications of their investment choices. A PEF value of 2.0 does not reflect the reality and would mislead consumers about their energy use, in some cases, making it look more efficient than it actually is. This will likely result in higher energy bills, exacerbating energy poverty.

For heating and cooling legislation, the use of PEF requires proper methods and impact assessments

The European Commission has recently indicated its intention to use the PEF value to be adopted in the EED in other energy efficiency-related legislation (e.g. Energy Performance of Buildings Directive, Energy Labelling for space heaters). While the EU PEF in the EED represents an annual average of the electricity mix, the assessment carried out for it did not look specifically into the implications for heating solutions, ignoring the seasonality of heat demand.

Heating represents half of the energy consumption in Europe and has strategic implications on Member States’ energy security as well as costs for industry and citizens². Member States, industry and citizens should have the choice of how to meet their specific power and heat needs, based on real and transparent energy performance of all technologies, and not be forced to embark in an accelerated electrification of their energy system, which may, furthermore, not necessarily lead to a higher use of renewable energy. Finally, for some industries, relying on electricity to meet their significant heat demand would not be feasible or cost-effective.

A lack of careful consideration and proper impact assessment to define the appropriate EU PEF for the heating sector may:

- **Distort competition on national markets** by increasing the apparent efficiency of the least efficient electric heaters (mainly imported from non-EU countries), allowing them to remain on the market, while the market-driven energy labelling scheme would have phased them out.
- **Jeopardise citizens and investors’ trust in key EU eco-design and energy labelling policies** by pushing them to buy products that will ultimately increase their energy bills.
- **Worsen the carbon footprint of EU Member State**, which will face greater peak electricity demand that will likely not be covered by RES but rather by more polluting and inefficient power generation means.

For transparency reasons and to avoid unintended consequences, the EED EU PEF value should not be automatically copied in sectoral legislation for heating and cooling without thorough impact assessment taking into account the seasonality of heat demand.

² Energy consumption for heating (including space heating, cooling and domestic hot water heating) is more than twice as large as electricity demand.