

THE RENEWABLE ENERGY SOURCES DIRECTIVE REVIEW

EXECUTIVE SUMMARY

EPEE representing the heating, cooling and refrigeration industry in Europe strongly supports the review of the Renewable Energy Sources Directive. In particular, EPEE calls for:

1. The annual increase of the share of renewables in heating and cooling to be made compulsory;
2. Minimum Renewable energy sources levels in buildings to be achieved by highly efficient heating and cooling systems, taking into account Ecodesign and Energy labelling measures;
3. 'Ambient energy' to encompass ambient air in the use of exhaust air, as well as sewage water;
4. 'Renewable cooling' to be treated equally to 'heating';
5. Renewable energy sources self-consumption to include thermal energy.

EPEE's Position:

EPEE representing the heating, cooling and refrigeration industry in Europe welcomes the [review](#) of the Renewable Energy Sources Directive and supports Rapporteur Jose Blanco Lopez's [draft report](#) in this regard as a step in the right direction.

Section 1: Make the annual increase of the share of renewables in heating and cooling compulsory

EPEE welcomes the rapporteur's proposal for a binding 2% target for Member States to increase the share of renewables in heating and cooling on an annual basis.

Section 2: Achieve minimum Renewable energy sources levels in buildings by highly efficient heating and cooling systems, under Ecodesign and Energy labelling measures

EPEE welcomes the rapporteurs' numerous references to Ecodesign and Energy labelling measures in its draft report.

Section 3: More encompassing 'Ambient energy'

'Ambient energy' should encompass ambient air in the use of exhaust air, as well as sewage water. To this end EPEE suggest the below amendments to Article 2:

EC proposal

Proposed amendment

Art 2 RED

Art 2 RED

(a) 'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar **(solar thermal and solar photovoltaic)** and, ~~aerothermal~~, geothermal, ~~energy hydrothermal~~ and, **ambient heat, tide, wave and other** ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases;

(a) 'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar (solar thermal and solar photovoltaic) and, ~~aerothermal~~, geothermal, energy hydrothermal and, **ambient heat-energy**, tide, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases;

EC proposal

Proposed amendment

Art 2 RED

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(b) 'ambient heat' means heat energy at a useful temperature level which is extracted or captured by means of heat pumps that need electricity or other auxiliary energy to function, and which can be stored in the ambient air, beneath the surface of solid earth or in surface water.

(b) 'ambient ~~heat-energy~~' means **thermal heat** energy at a useful temperature level which is extracted or captured by means of heat pumps that need electricity or other auxiliary energy to function, and which can be stored in the ambient air (including **in the use of** exhaust air), beneath the surface of solid earth or in surface water **or sewage water**.

Justification

Heating and cooling are relative terms relating to human perception. Technically, thermal energy at a useful level is extracted from the environment. The temperature level at which ambient energy is used, would still be considered cold from a human perspective. Consequently, it is more precise to use the term 'ambient energy'.

According to the Commission Decision of 1 March 2013 establishing the guidelines for Member States on calculating renewable energy from heat pumps from different heat pump technologies, the aerothermal part of exhaust air is considered as renewable. As the definition of ambient energy is replacing the one of aerothermal, the proposed amendment intends to clarify this issue by recalling the content of the EC decision.

Ambient energy is naturally stored in sewage water. It is a hydrothermal energy source. Equally to biogas that can be produced from the sludge of sewage water and whose renewable character is not disputed, ambient energy originating from sewage water deserves to be considered as renewable energy source.

Section 4: ‘Renewable cooling’ treated equally to ‘heating’

The Commission should set up a thorough methodology for cooling to be treated equally to heating. In a transitional period, the calculation method used for heat pumps and heating should be extended to cooling. To this end, EPEE suggest the below amendment to Annex VII:

EC proposal

ANNEX VII RED – Accounting of energy from heat pumps

The amount of aerothermal, geothermal or hydrothermal energy captured by heat pumps to be considered energy from renewable sources for the purposes of this Directive, ERES, shall be calculated in accordance with the following formula:

$$ERES = Q_{usable} * (1 - 1/SPF)$$

where

– Q_{usable} = the estimated total usable heat delivered by heat pumps fulfilling the criteria referred to in Article 7 5(4), implemented as follows:

Only heat pumps for which $SPF > 1,15 * 1/\eta$ shall be taken into account,

– SPF = the estimated average seasonal performance factor for those heat pumps,

– η is the ratio between total gross production of electricity and the primary energy consumption for electricity production and shall be calculated as an EU average based on Eurostat data.

Proposed amendment

ANNEX VII RED – Accounting of energy from heat pumps

1. For the implementation of Regulation XXX (Energy Union Governance), the Commission shall establish a harmonised method to determine how the amount of renewable energy used for cooling shall be calculated.

2. For a transitional period, the amount of aerothermal, geothermal or hydrothermal energy ambient heat extracted or captured by heat pumps to be considered energy from renewable sources for the purposes of this Directive, ERES, shall be calculated in accordance with the following formulas below.

For heating:

$$ERES_{res(h)} = Q_{usable(h)} * (1 - 1/SPF)$$

where

– $Q_{usable(h)}$ = the estimated total usable heat delivered by heat pumps fulfilling the criteria referred to in Article 7 5(4), implemented as follows:

~~Only heat pumps for which $SPF > 1,15 * 1/\eta$ shall be taken into account,~~

– SPF = the estimated average seasonal performance factor for those heat pumps,

– η is the ratio between total gross production of electricity and the primary energy consumption for electricity production and shall be calculated as an EU average based on

Eurostat data.

For cooling:

$$E_{res(c)} = Q_{usable(c)} * (1 - 1/SPF)$$

where

– $Q_{usable(c)}$ = the estimated total usable energy delivered by heat pumps running in cooling mode,

– SPF = the estimated average seasonal performance factor for those heat pumps.

Justification

Thermal comfort should be a right, whether provided through the heating or through cooling of the initial indoor temperature. Consequently, the recognition of the renewable character of the thermal process should be equally treated and calculated.

Adding cooling to European energy statistics requires a thorough evaluation both of the existing renewable targets and their calculation. This evaluation should be carried out by the Commission.

In a transitional period, the calculation method used for heat pumps and space heating should be extended to space cooling and domestic hot water production. It is important to acknowledge as well that minimum efficiency requirements do not need to be referred to anymore. The implementation of Ecodesign regulations already ensures that only efficient heat pumps are put on the market.

Section 5: Renewable energy sources self-consumption including thermal energy

EPEE believes self-consumption must include thermal energy. To this effect, EPEE suggest the below amendments to Articles 2 and 21:

EC Proposal

Proposed amendment

Article 2 RED – Definitions

Article 2 RED - Definitions

(aa) ‘renewable self-consumer’ means an active customer as defined in Directive [MDI Directive] who consumes and may store and sell renewable electricity which is generated within his or its premises, including a multi-apartment block, a commercial or shared services site or a closed distribution system, provided that, for non-household renewable self-

(aa) ‘renewable self-consumer’ means an active customer as defined in Directive [MDI Directive] who consumes and may store and, **if applicable**, sell renewable ~~electricity~~ **energy** which is generated within his or its premises, including a multi-apartment block, a commercial or shared services site or a closed distribution system, provided that, for non-household renewable

consumers, those activities do not constitute their primary commercial or professional activity;

(bb) 'renewable self-consumption' means the generation and consumption, and, where applicable, storage, of renewable electricity by renewable self-consumers;

self-consumers, those activities do not constitute their primary commercial or professional activity;

(bb) 'renewable self-consumption' means the generation and consumption, and, where applicable, storage, of renewable ~~electricity~~**energy** by renewable self-consumers;

Justification

With better sector connections, the multiplication of mini-thermal grids and new prosumer centred economic models, self-consumption of renewable heating and cooling might spread widely. This should be anticipated in the Directive.

EC Proposal

Proposed amendment

Article 21 RED – Renewable self-consumers

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1. Member States shall ensure that renewable self-consumers, individually or through aggregators:

1. Member States shall ensure that renewable self-consumers, individually or through aggregators:

(a) are entitled to carry out self-consumption and sell, including through power purchase agreements, their excess production of renewable electricity without being subject to disproportionate procedures and charges that are not cost-reflective;

(a) are entitled to carry out self-consumption and sell, including through power purchase agreements, their excess production of renewable electricity without being subject to disproportionate procedures and charges that are not cost-reflective;

(b) maintain their rights as consumers;

(b) maintain their rights as consumers;

(c) are not considered as energy suppliers according to Union or national legislation in relation to the renewable electricity they feed into the grid not exceeding 10 MWh for households and 500 MWh for legal persons on an annual basis; and

(c) are not considered as energy suppliers according to Union or national legislation in relation to the renewable electricity they feed into the grid not exceeding 10 MWh for households and 500 MWh for legal persons on an annual basis; and

(d) receive a remuneration for the self-generated renewable electricity they feed into the grid which reflects the market value of the

(d) receive a remuneration for the self-generated renewable electricity they feed into the grid which reflects the market value of the

electricity fed in.

Member States may set a higher threshold than the one set out in point (c).

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(e) enjoy similar rights, if applicable, when carrying out self-consumption of renewable heating or cooling.

Member States may set a higher threshold than the one set out in point (c).

Justification

With better sector connections, the multiplication of mini-thermal grids and new prosumer centred economic models, self-consumption of renewable heating and cooling might spread widely. This should be anticipated in the Directive

ABOUT EPEE:

The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of 40 member companies, national and international associations.

EPEE member companies realize a turnover of over 30 billion Euros, employ more than 200,000 people in Europe and also create indirect employment through a vast network of small and medium-sized enterprises such as contractors who install, service and maintain equipment.

EPEE member companies have manufacturing sites and research and development facilities across the EU, which innovate for the global market.

As an expert association, EPEE is supporting safe, environmentally and economically viable technologies with the objective of promoting a better understanding of the sector in the EU and contributing to the development of effective European policies. Please see our website (www.epeeglobal.org) for further information.

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