

**Amendment 95**

**Adam Gierek, Krystyna Łybacka, Janusz Zemke, Bogusław Liberadzki, Lidia Joanna Geringer de Oedenberg, Markus Pieper, Czesław Adam Siekierski, Jerzy Buzek, Andrzej Grzyb, Georgios Epitideios, Urszula Krupa, Danuta Jazłowiecka, Julia Pitera, Bogdan Brunon Wenta, Jarosław Kalinowski, Krzysztof Hetman, Agnieszka Kozłowska-Rajewicz, Ryszard Antoni Legutko, Czesław Hoc, Edward Czesak, Bolesław G. Piecha, Jadwiga Wiśniewska, Beata Gosiewska, Mirosław Piotrowski, Valdemar Tomaśevski, Bogdan Andrzej Zdrojewski, Sławomir Kłosowski, Tadeusz Zwiefka, Dariusz Rosati, Marek Jurek, Zdzisław Krasnodębski, Zbigniew Kuźmiuk, Kazimierz Michał Ujazdowski, Jarosław Wałęsa, Elżbieta Katarzyna Łukacijewska, Ryszard Czarnecki, Kosma Złotowski, Stanisław Ożóg, Jan Olbrycht, Marek Plura, Janusz Lewandowski, Michał Boni, Danuta Maria Hübner, Jacek Saryusz-Wolski, Karol Karski, Tomasz Piotr Poręba, Adam Szejnfeld, Anna Elżbieta Fotypa, Boris Zala, Maria Grapini, Monika Smolková**

**Report**

A8-0391/2017

**Miroslav Poche**

Energy efficiency

COM(2016)0761 – C8-0498/2016 – 2016/0376(COD)

**Proposal for a directive****Recital 16***Text proposed by the Commission**Amendment*

**(16) Reflecting technological progress and the growing share of renewable energy sources in the electricity generation sector, the default coefficient for savings in kWh electricity should be reviewed in order to reflect changes in the primary energy factor (PEF) for electricity. Calculations of the PEF for electricity are based on annual average values. The Physical energy content accounting method is used for nuclear electricity and heat generation and the Technical conversion efficiency method is used for electricity and heat generation from fossil fuels and biomass. For non-combustible renewable energy, the method is the direct equivalent based on the Total primary energy approach. To calculate the primary energy share for electricity in CHP the method set out in Annex II of Directive 2012/27/EU is**

*applied. An average market position is used rather than a marginal one.*

*Conversion efficiencies are assumed to be 100 % for non-combustible renewables, 10 % for geothermal power stations and 33 % for nuclear power stations. Total efficiency for cogeneration is calculated based on the most recent data from Eurostat. As for system boundaries the PEF is 1 for all energy sources.*

*Calculations are based on the most recent version of the PRIMES Reference Scenario. The PEF value is based on the projection for 2020. The analysis covers the EU Member States and Norway. The dataset for Norway is based on ENTSO-E data.*

Or. en

#### *Justification*

#### *Justification*

*The reference to Annex II of Directive 2012/27/EU has to be deleted, as there is only a formula to calculate the efficiency of CHP installations. It does not mention any suggestion about the split of electricity and heat. Furthermore, Recital 16 leaves some vagueness concerning the methodology. The value of a PEF factor depends on energy source. These real indicators are required for calculations that are made while moving from useful and final energy to cumulative primary energy defined by the Member States.*

**Amendment 96**

**Adam Gierek, Krystyna Łybacka, Janusz Zemke, Bogusław Liberadzki, Lidia Joanna Geringer de Oedenberg, Markus Pieper, Czesław Adam Siekierski, Jerzy Buzek, Andrzej Grzyb, Georgios Epitideios, Urszula Krupa, Danuta Jazłowiecka, Julia Pitera, Bogdan Brunon Wenta, Jarosław Kalinowski, Krzysztof Hetman, Agnieszka Kozłowska-Rajewicz, Ryszard Antoni Legutko, Czesław Hoc, Edward Czesak, Bolesław G. Piecha, Jadwiga Wiśniewska, Beata Gosiewska, Valdemar Tomaševski, Miroslaw Piotrowski, Bogdan Andrzej Zdrojewski, Sławomir Kłosowski, Tadeusz Zwiefka, Michał Boni, Dariusz Rosati, Marek Jurek, Zdzisław Krasnodębski, Zbigniew Kuźmiuk, Jarosław Wałęsa, Elżbieta Katarzyna Łukacijewska, Ryszard Czarnecki, Kosma Złotowski, Stanisław Ożóg, Jan Olbrycht, Marek Plura, Janusz Lewandowski, Kazimierz Michał Ujazdowski, Danuta Maria Hübner, Jacek Saryusz-Wolski, Karol Karski, Tomasz Piotr Poręba, Adam Szejnfeld, Anna Elżbieta Fotypa, Boris Zala, Maria Grapini, Monika Smolková**

**Report****A8-0391/2017****Miroslav Poche**

Energy efficiency

COM(2016)0761 – C8-0498/2016 – 2016/0376(COD)

**Proposal for a directive****Article 1 – paragraph 1 – point 11 a (new)**

Directive 2012/27/EU

Article 21 a (new)

*Present text**Amendment**(11a) the following article is inserted:**“Article 21a**Primary energy factors*

*The primary energy factors (PEF) set out in Annexes IVa and IVb shall apply. Member States may apply different primary energy factors where justified in view of their national circumstances.”*

Or. en

*Justification*

*The value of the primary energy factors depends on energy source. The real value of these indicators will depend largely on national conditions and average performance indicators for*

*individual energy technologies and their technological levels (old blocks vs. BAT blocks). Their realisation is necessary for the correctly determined cumulation of non-renewable primary energy in the individual EU Member States.*

**Amendment 97**

**Adam Gierek, Krystyna Łybacka, Janusz Zemke, Bogusław Liberadzki, Lidia Joanna Geringer de Oedenberg, Markus Pieper, Czesław Adam Siekierski, Jerzy Buzek, Andrzej Grzyb, Georgios Epitideios, Urszula Krupa, Danuta Jazłowiecka, Julia Pitera, Bogdan Brunon Wenta, Jarosław Kalinowski, Krzysztof Hetman, Agnieszka Kozłowska-Rajewicz, Ryszard Antoni Legutko, Czesław Hoc, Edward Czesak, Bolesław G. Piecha, Jadwiga Wiśniewska, Beata Gosiewska, Valdemar Tomaševski, Miroslaw Piotrowski, Bogdan Andrzej Zdrojewski, Sławomir Kłosowski, Tadeusz Zwiefka, Michał Boni, Dariusz Rosati, Marek Jurek, Zdzisław Krasnodębski, Zbigniew Kuźmiuk, Kazimierz Michał Ujazdowski, Jarosław Walęsa, Elżbieta Katarzyna Łukacijewska, Ryszard Czarnecki, Kosma Złotowski, Stanisław Ozóg, Jan Olbrycht, Marek Plura, Janusz Lewandowski, Danuta Maria Hübner, Jacek Saryusz-Wolski, Karol Karski, Tomasz Piotr Poręba, Adam Szejnfeld, Anna Elżbieta Fotyga, Boris Zala, Maria Grapini, Monika Smolková**

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Energy efficiency

COM(2016)0761 – C8-0498/2016 – 2016/0376(COD)

**Proposal for a directive****Annex I – point 1 a (new)**

Directive 2012/27/EU

Annex IV a (new)

*Text proposed by the Commission**Amendment**(1a) the following annex is inserted:**‘ANNEX IVa*

*Non-renewable primary energy indices (cumulated non-renewable primary energy – PEF) for selected energy carriers in the European Union (all indicators are given in MJ<sub>Epr</sub>/MJ)*

<i>Final energy carrier (electricity)</i>	<i>PEF value</i>	<i>Technical data</i>
<i>Fuels in the European Union (average values)</i>		
<i>Hard coal, at final customers</i>	<i>1,05</i>	<i>Average calorific value = 26,56 MJ/kg</i>

<i>Lignite, at final customers</i>	<i>1,03</i>	<i>Average calorific value = 9,35 MJ/kg</i>
<i>Natural gas, at final customers</i>	<i>1,11</i>	<i>Average calorific value = 45,2 MJ/kg</i>
<i>Biomass, at final customers</i>	<i>0,2</i>	<i>Average calorific value = 17 MJ/kg</i>
<i>Diesel, in the refinery</i>	<i>1,14</i>	<i>Average calorific value = 42,96 MJ/kg With the addition of biocomponents (5,75 %); Sulphur content 10 ppm</i>
<i>petrol, in the refinery</i>	<i>1,17</i>	<i>Average calorific value = 43,9 MJ/kg With the addition of biocomponents (5,75 %); Sulphur content 10 ppm</i>
<i>Light heating oil, in the refinery</i>	<i>1,19</i>	<i>Average calorific value = 42,62 MJ/kg Only from crude oil; Sulphur content 0,1 %</i>
<i>Heavy heating oil, in the refinery</i>	<i>1,08</i>	<i>Average calorific value = 40,44 MJ/kg Only from crude oil; Sulphur content 0,1 %</i>
<i>Electricity in the European Union (average values)</i>		
<i>Electricity, at individual final customers</i>	<i>2,40</i>	<i>Voltage 230 V</i>
<i>Electricity, at low voltage customers</i>	<i>2,36</i>	<i>Voltage &lt; 1 kV</i>
<i>Electricity, at medium voltage customers</i>	<i>2,25</i>	<i>Voltage 1 kV - 60 kV</i>
<i>Electricity, at high voltage customers</i>	<i>2,15</i>	<i>Voltage &gt; 60 kV</i>
<i>Electricity by technology (average values - examples for BAT)</i>		
<i>Electricity, hard coal production, at the manufacturer</i>	<i>3,48</i>	<i>High voltage</i>
<i>Electricity, lignite production, at the manufacturer</i>	<i>3,56</i>	<i>High voltage</i>
<i>Electricity, natural gas production in the gas-steam system, at the manufacturer</i>	<i>2,21</i>	<i>High voltage</i>

<i>Electricity, natural gas production in the gas turbine system, at the manufacturer</i>	3,55	<i>High voltage</i>
<i>Electricity, liquid fuel production, at the manufacturer</i>	3,92	<i>High voltage</i>
<i>Electricity, water power stations production, at the manufacturer</i>	0,014	<i>High voltage, flow water power plant</i>
<i>Electricity, centralised production from PV panels, at the manufacturer</i>	0,415	<i>High voltage, ground solar panels of 570 kW</i>
<i>Electricity, land wind turbine production, at the manufacturer</i>	0,075	<i>High voltage</i>
<i>Electricity, marine wind turbine production, at the manufacturer</i>	0,055	<i>High voltage</i>
<i>Electricity, geothermal power stations production, at the manufacturer</i>	0,283	<i>High voltage, deep geothermal deposits</i>
<i>Electricity, nuclear power stations production, at the manufacturer</i>	3,343	<i>High voltage, PWR reactors</i>

Or. en

#### *Justification*

The values of the primary energy factors given in the table below for individual technologies of electricity production are the sample values for BAT technology. The real value of these indicators will depend largely on national conditions and average performance indicators for individual energy technologies and their technological levels (old blocks vs. BAT blocks). Their realisation is necessary for the correctly determined cumulation of non-renewable primary energy in the individual EU Member States.

**Amendment 98**

**Adam Gierek, Krystyna Łybacka, Janusz Zemke, Bogusław Liberadzki, Lidia Joanna Geringer de Oedenberg, Markus Pieper, Czesław Adam Siekierski, Jerzy Buzek, Andrzej Grzyb, Georgios Epitideios, Urszula Krupa, Danuta Jazłowiecka, Julia Pitera, Bogdan Brunon Wenta, Jarosław Kalinowski, Krzysztof Hetman, Agnieszka Kozłowska-Rajewicz, Ryszard Antoni Legutko, Czesław Hoc, Edward Czesak, Bolesław G. Piecha, Jadwiga Wiśniewska, Beata Gosiewska, Valdemar Tomaševski, Miroslaw Piotrowski, Bogdan Andrzej Zdrojewski, Sławomir Kłosowski, Tadeusz Zwiefka, Michał Boni, Dariusz Rosati, Marek Jurek, Zdzisław Krasnodębski, Zbigniew Kuźmiuk, Kazimierz Michał Ujazdowski, Jarosław Walęsa, Elżbieta Katarzyna Łukacijewska, Ryszard Czarnecki, Kosma Złotowski, Stanisław Ożóg, Jan Olbrycht, Marek Plura, Janusz Lewandowski, Danuta Maria Hübner, Jacek Saryusz-Wolski, Karol Karski, Tomasz Piotr Poręba, Adam Szejnfeld, Anna Elżbieta Fotyga, Boris Zala, Maria Grapini, Monika Smolková**

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Energy efficiency

COM(2016)0761 – C8-0498/2016 – 2016/0376(COD)

**Proposal for a directive****Annex I – point 1 b (new)**

Directive 2012/27/EU

Annex IV b (new)

*Text proposed by the Commission**Amendment***(1b) the following annex is inserted:****‘ANNEX IVb**

**Non-renewable primary energy indices (cumulated non-renewable primary energy – PEF) for selected energy carriers in the European Union (all indicators are given in MJEpn/MJ)**

<i>Final energy carrier</i>	<i>PEF value</i>	<i>Technical data</i>
<i>Fuels (average values for the EU)</i>		
<i>Hard coal, at final customers</i>	<i>1,05</i>	<i>Average calorific value = 26,56 MJ/kg</i>
<i>Lignite, at final customers</i>	<i>1,03</i>	<i>Average calorific value = 9,35 MJ/kg</i>
<i>Natural gas, at final customers</i>	<i>1,11</i>	<i>Average calorific value = 45,2 MJ/kg</i>

<i>Biomass, at final customers</i>	<i>0,2</i>	<i>Average calorific value = 17 MJ/kg</i>
<i>Heat in the European Union (average values)</i>		
<i>Heat, centralised co-generation systems (non-renewable fuels other than natural gas), final customers</i>	<i>1,12</i>	<i>Network heat</i>
<i>Heat, centralised co-generation systems (natural gas), final customers</i>	<i>0,45</i>	<i>Network heat</i>
<i>Heat, centralised heating plant (non-renewable fuels other than natural gas), final customers</i>	<i>1,31</i>	<i>Network heat</i>
<i>Heat, centralised heat stations (natural gas), final customers</i>	<i>1,23</i>	<i>Network heat</i>
<i>Heat, centralised sources, renewable fuels, final customers</i>	<i>0,15</i>	<i>Network heat; Renewable energy sources - mainly biomass and biogas</i>
<i>Electricity and heat (average values for the EU)</i>		
<i>Electricity, PV panel production, at individual final customers</i>	<i>0,40</i>	<i>Roof solar panels of 3 kW each</i>
<i>Heat, solar collectors, at individual final customers</i>	<i>0,10</i>	<i>Roof solar collectors</i>
<i>Heat, ground heat pump, at individual final customers</i>	<i>0,31</i>	<i>Ground heat pump up to 30 kW</i>
<i>Heat, air heat pump, at individual final customers</i>	<i>0,59</i>	<i>Air heat pump up to 10 kW</i>
<i>Heat, wood fireplaces, at individual final customers</i>	<i>0,25</i>	<i>Individual fireplace heat; Burning wood; up to 30 kW</i>

Or. en

#### *Justification*

*PEF coefficients for individual non-renewable fuel boilers should be determined according to the efficiency of these boilers.*

**Amendment 99**

**Adam Gierek, Krystyna Łybacka, Janusz Zemke, Bogusław Liberadzki, Lidia Joanna Geringer de Oedenberg, Markus Pieper, Czesław Adam Siekierski, Jerzy Buzek, Andrzej Grzyb, Georgios Epitideios, Urszula Krupa, Danuta Jazłowiecka, Julia Pitera, Bogdan Brunon Wenta, Jarosław Kalinowski, Krzysztof Hetman, Agnieszka Kozłowska-Rajewicz, Ryszard Antoni Legutko, Czesław Hoc, Edward Czesak, Bolesław G. Piecha, Jadwiga Wiśniewska, Beata Gosiewska, Valdemar Tomaševski, Miroslaw Piotrowski, Bogdan Andrzej Zdrojewski, Sławomir Kłosowski, Tadeusz Zwiefka, Michał Boni, Dariusz Rosati, Marek Jurek, Zdzisław Krasnodębski, Zbigniew Kuźmiuk, Kazimierz Michał Ujazdowski, Jarosław Walęsa, Elżbieta Katarzyna Łukacijewska, Ryszard Czarnecki, Kosma Złotowski, Stanisław Ożóg, Jan Olbrycht, Marek Plura, Janusz Lewandowski, Danuta Maria Hübner, Jacek Saryusz-Wolski, Karol Karski, Tomasz Piotr Poręba, Adam Szejnfeld, Anna Elżbieta Fotyga, Boris Zala, Maria Grapini, Monika Smolková**

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Energy efficiency

COM(2016)0761 – C8-0498/2016 – 2016/0376(COD)

**Proposal for a directive****Annex I – point 1 – point a**

Directive 2012/27/EU

Annex IV – footnote 3

*Commission text**Amendment*

*(a) in Annex IV, footnote 3 is replaced by the following: '(3) Applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption. For savings in kWh electricity Member States may apply a default coefficient of 2,0. Member States may apply a different coefficient provided they can justify it.'*

*(a) in Annex IV, footnote 3 is deleted.*

Or. en

*Justification*

*Since according to the AM 2 Member States may apply different primary energy factors if those can be justified in view of their national circumstances, this reference is redundant and should be deleted.*

