Annexes

To the

Commission Regulation (EU)

supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to the energy labelling of solid fuel boilers and packages of a solid fuel boiler, suplementary heaters, temperature controls and solar devices and repealing Commission Delegated Regulation (EU) 2015/1187

Version of 12 of February 2024

ANNEX I
Definitions applicable to the Annexes

For the purposes of Annexes II to VIII the following definitions shall apply:

(1) 'model identifier' means the code, usually alphanumeric, which distinguishes a specific product model from other models with the same trade mark or the same manufacturer's, importer's or authorised representative's name;

(2) 'seasonal space heating energy efficiency' (η_s) means the ratio between the space heating demand supplied by a solid fuel boiler and the annual energy consumption required to meet this demand, expressed in %;

(3) 'seasonal space heating energy efficiency in active mode' (η_{son}) means

(a) for automatically stoked solid fuel boilers, a weighted average of the useful efficiency at rated heat output and the useful efficiency at 30 % of the rated heat output, expressed in %;

(b) for manually stoked solid fuel boilers that can be operated at 50% of the rated heat output in continuous mode, a weighted average of the useful efficiency at rated heat output and the useful efficiency at 50 % of the rated heat output, expressed in %;

(c) for manually stoked solid fuel boilers that cannot be operated at 50% or less of the rated heat ouput in continuous mode, the useful efficiency at rated heat output, expressed in %;

(d) for solid fuel cogeneration boilers, the useful efficiency at rated heat output, expressed in %;

(4) 'active mode' means a condition in which the equipment is connected to the mains power source and at least one of the main functions has been activated;

(5) ‘main function’ means a function delivering the main service(s) for which the equipment is designed, tested and marketed, and which corresponds to the intended use of the equipment;

(6) ‘useful efficiency’ at either the rated heat output (η_n) or part load (η_p) means:

(a) for solid fuel boilers, the ratio of the useful heat output and the total energy input in kW in terms of the GCV of the fuel;

(b) for solid fuel cogeneration boilers, the ratio between the sum of the useful heat output and of the electric output multiplied by the electricity conversion factor of 2,65 in kW, and the total energy input in kW in terms of the GCV of the fuel;

(7) ‘useful heat output’ (*P*) means the heat output of a solid fuel boiler transmitted to the heat carrier, expressed in kW;

(8) ‘gross calorific value’ (*GCV*) means the total amount of heat released by a unit quantity of fuel containing the appropriate moisture content, when it is burned completely with oxygen, and when the products of combustion are returned to ambient temperature; this quantity includes the condensation heat of the water vapour formed by the combustion of any hydrogen contained in the fuel;

(9) conversion coefficient’ (CC) means the primary energy factor for electricity conversion coefficient of 1.9 set under Directive (EU) 2023/1791[5] “ ‘

(10) ‘moisture content’ means the mass of water in the fuel in relation to the total mass of the fuel as used in solid fuel boilers;

(11) ‘electrical efficiency’ (η_{el}) means the ratio of the electricity output and the total energy input of a solid fuel cogeneration boiler, whereby the total energy input is expressed in terms of *GCV* or in terms of final energy multiplied by *CC*, expressed in %;

(12)

(13)

(14)

(15)

(16) ‘auxiliary electricity consumption at rated heat output’ (el_{max}) means the electric power consumption of the solid fuel boiler while providing the rated heat output, excluding electricity consumption from a back-up heater and from incorporated secondary emission abatement equipment, expressed in kW;

(17) ‘back-up heater’ means a Joule-effect electric resistance element that generates heat only to prevent the solid fuel boiler or the water based central heating system from freezing or when the external heat source supply is disrupted (including during maintenance periods) or out of order;

(18) ‘auxiliary electricity consumption at minimum heat output’ (el_{min}) means the electric power consumption of the solid fuel boiler while providing the applicable part load, excluding electricity consumption from a back-up heater and from incorporated secondary emission abatement equipment expressed in kW;

(19) ‘part load’ means for automaticaly stoked solid fuel boilers, operation at 30% of rated heat output, and for manually stoked solid fuel boilers that can be operated at 50% of rated heat output, operation at 50% of rated heat output;

(20) ‘gross calorific value moisture free’ (GCV_{mf}) means the total amount of heat released by a unit quantity of fuel dried of inherent moisture, when it is burned completely with oxygen, and when the products of combustion are returned to ambient temperature; this quantity includes the condensation heat of the water vapour formed by the combustion of any hydrogen contained in the fuel;

(21) ‘standby mode’ means a condition where the product is connected to the mains power source and provides only one or more of the following functions, which may persist for an indefinite time:

(c) reactivation function, or reactivation function and only an indication of enabled reactivation function;

(d) reactivation function through a connection to a network (‘networked standby’);

(e) information or status display;

(22) ‘reactivation function’ means a function that via a remote switch, a remote control, an internal sensor or timer provides a switch from standby mode to another mode, including active mode, providing additional functions;

(23) ‘information or status display’ means a continuous function providing information or indicating the status of the equipment on a display, including clocks. A simple light indicator is not considered a status display;

(24) ‘network’ means a communication infrastructure with a topology of links, an architecture, including the physical components, organisational principles, communication procedures and formats (protocols);

(25) ‘off mode’ means a condition in which the equipment is connected to the mains power source and is not providing any function, or it is in a condition providing only:

(a) an indication of off mode condition;

(b) functionalities intended to ensure electromagnetic compatibility under Directive 2014/30/EU of the European Parliament and of the Council;

(26) ‘idle mode’ means a condition in which the product is connected to the mains power source and is able to automatically provide heat to the room according to the setpoint temperature;

(27) ‘condensing boiler’ means a solid fuel boiler in which, under normal operating conditions and at given operating water temperatures, the water vapour in the combustion products is partially condensed, in order to make use of the latent heat of this water vapour for heating purposes;

(28) ‘woody biomass’ means biomass originating from trees, bushes and shrubs, including log wood, chipped wood, compressed wood in the form of pellets, compressed wood in the form of briquettes, and sawdust;

(29) ‘other woody biomass’ means woody biomass other than: log wood with a moisture content of 25% or less, chipped wood with a moisture content of 15% or higher, compressed wood in the form of pellets or briquettes, or sawdust with a moisture content equal or less than 50%;

(30) ‘non-woody biomass’ means biomass other than woody biomass, including straw, miscanthus, reeds, kernels, grains, olive stones, olive cakes and nut shells;

(31) ‘other fossil fuel’ means fossil fuel other than bituminous coal, brown coal (including briquettes), coke, anthracite or blended fossil fuel briquettes;

(32) ‘equivalent model’ means a model placed on the market with the same technical parameters set out in Table 4 of point 1 of Annex V, as another model placed on the market by the same manufacturer;

(33) .

ANNEX II

Energy efficiency class and pollutant emissions class to be displayed in the label referred to in Articles 3 and 4

1. ENERGY EFFICIENCY CLASS

(1) The energy efficiency class of a solid fuel boiler and packages of a solid fuel boiler, supplementary heaters, temperature controls and solar devices shall be determined on the basis of its energy efficiency index ('EEI') as set out in Table 1. The EEI of a solid fuel boiler shall be determined in accordance with point 1 of Annex IV.

Table 1

Energy efficiency class of solid fuel boilers

Energy efficiency class	**Energy efficiency index (*EEI*)**
A	$EEI \geq 300$
B	$235 \leq EEI < 300$
C	$185 \leq EEI < 235$
D	$145 \leq EEI < 185$
E	$115 \leq EEI < 145$
F	$90 \leq EEI < 115$
G	$EEI < 90$

(2) The energy efficiency class of a package of a solid fuel boiler, supplementary heaters, temperature controls and solar devices shall be determined on the basis of the energy efficiency index ('EEI') of the package as set out in Table 1. The EEI of a package of a solid fuel boilers, supplementary heaters, temperature controls and solar devices shall be determined in accordance with point 7 of Annex IV.

2. POLLUTANT EMISSIONS CLASS

The pollutant emissions class of a solid fuel boiler shall be determined on the basis of the seasonal space heating PM emissions as set out in Table 2. The seasonal space heating pollutant emissions of a solid fuel boiler shall be determined in accordance with point 6 of Annex IV.

Table 2

Pollutant emissions class

Acoustic airborne noise emission class	**PM (mg/m^3)**
A	PM ≤
B	< PM ≤
C	< PM ≤

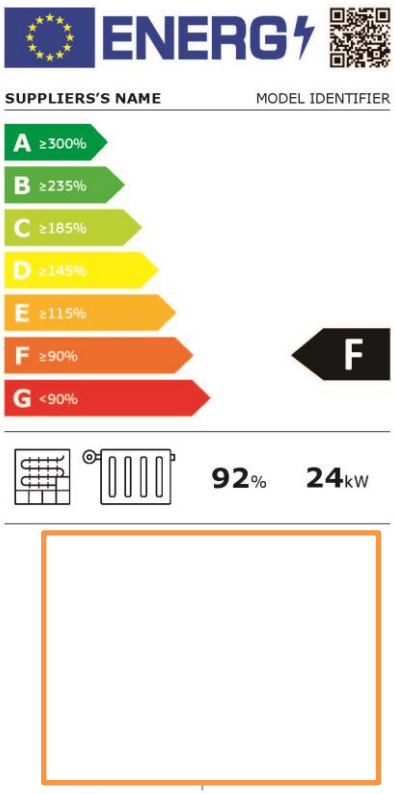
D	PM >

ANNEX III
Label referred to in Articles 3 and 4

A. Label for solid fuel boilers

1. LABEL

Figure 1 (dummy label, needs to be adapted to solid fuel boilers)



The following information shall be included in the label:

(I) a QR code;

(II) the trademark;

(III) the model identifier;

(V) the scale of energy efficiency classes from A to G;

(VI) the energy efficiency class determined in accordance with Annex II;

(VII) the rated heat output in kW, rounded to the nearest integer and calculated in accordance with Annex IV;

(VIII) the pollutant emissions class, rounded to the nearest integer and calculated in accordance with Annex IV;

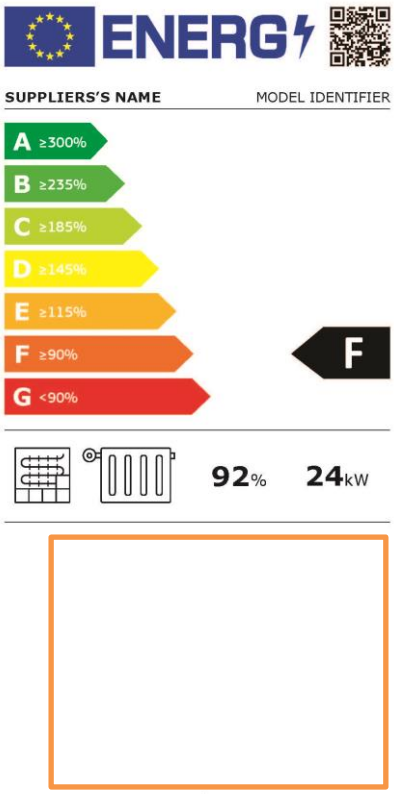
(IX) for combination boilers, the additional water heating function;

(X) for solid fuel cogeneration boilers, the additional electricity generation function.

2. LABEL DESIGN FOR SOLID FUEL BOILERS

The design of the label for solid fuel boilers shall be as in Figure 2.

Figure 2 (dummy label, needs to be adapted to solid fuel boilers)



Whereby:

(a) the label must be at least 96 mm wide and 192 mm high. Where the label is printed in a larger format, its content must nevertheless remain proportionate to the specifications in Figure 2;

(b) the background of the label shall be 100% white;

(c) the typeface shall be Verdana;

(d) the dimensions and specifications of the elements constituting the label shall be as indicated in Figure 2;

(e) colours shall be CMYK — cyan, magenta, yellow and black following this example: 0,70,100,0: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black;

(f) the label shall fulfil all the following requirements (numbers refer to Figure 2).

❶ the colours of the EU logo shall be as follows:

(a) the background: 100,80,0,0;

(b) the stars: 0,0,100,0;

❷ the colour of the energy logo shall be: 100,80,0,0;

❸ the QR code shall be 100 % black;

❹ the trademark shall be 100 % black and in Bold 9 pt;

❺ the model identifier shall be 100 % black and in Regular 9 pt;

❻ the A to G scale shall be as follows:

(a) the letters of the energy efficiency scale shall be 100 % white and in Bold 11 pt, the letters shall be centred on an axis at 4 mm from the left side of the arrows;

(b) the colours of the A to G scale arrows shall be as follows:

(i) A-class: 100,0,100,0;

(ii) B-class: 70,0,100,0;

(iii) C-class: 30,0,100,0;

(iv) D-class: 0,0,100,0;

(v) E-class: 0,30,100,0;

(vi) F-class: 0,70,100,0;

(vii) G-class: 0,100,100,0;

❼ the internal dividers shall have a weight of 0,5 pt and the colour shall be 100 % black;

❽ the letter of the energy efficiency class shall be 100% white and in bold 20 pt. The energy efficiency class arrow and the corresponding arrow in the A to G scale shall be positioned in such a way that their tips are aligned. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow which shall be 100% black;

❾ the value of the rated heat output shall be in Bold 20 pt; 'kW' shall be in Regular 13 pt. The text shall be centred and 100 % black;

❿ the pictograms shall be as shown in the label design and as follows:

(a) the lines of the pictograms shall have a weight of 1 pt and shall be 100% black;

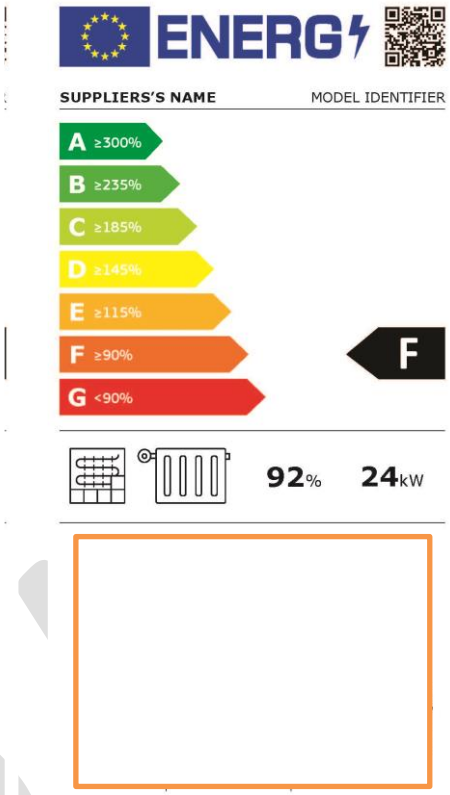
(b) the A to D scale of the pollutant emissions pictogram shall be aligned on a vertical axis on the left side of the icon, with the letter of the applicable pollutant emissions class in Bold 12 pt and the other letters of the pollutant emissions classes in Regular 8 pt;

⓫ the number of the Regulation shall be 100 % black and in Regular 5 pt.

B. Label for packages of a solid fuel boiler, supplementary heaters, temperature controls and solar devices

1. LABEL

Figure 3 (dummy label, needs to be adapted to solid fuel boilers)



The following information shall be included in the label:

(I) a QR code;

(II) the trademark;

(III) the model identifier;

(V) the energy efficiency class of the solid fuel boiler determined in accordance with Annex II;

(VI) indication of whether a solar collector, hot water storage tank, temperature control and/or supplementary heater is included in the package of solid fuel boiler, supplementary heater, temperature control and solar device;

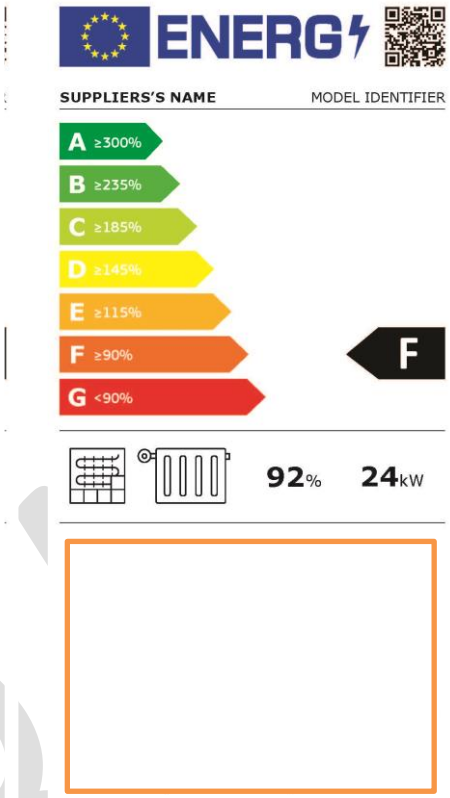
(VII) the scale of energy efficiency classes from A to G;

(VIII) the energy efficiency class of the package of solid fuel boiler, supplementary heater, temperature control and solar device, determined in accordance with Annex II;

2. LABEL DESIGN FOR PACKAGES OF A SOLID FUEL BOILER, SUPPLEMENTARY HEATERS, TEMPERATURE CONTROLS AND SOLAR DEVICES

The design of the label for packages of a solid fuel boiler, supplementary heaters, temperature controls and solar devices shall be as in Figure 4:

Figure 4 (dummy label, needs to be adapted to solid fuel boilers)



Whereby:

(a) the label must be at least 96 mm wide and 192 mm high. Where the label is printed in a larger format, its content must nevertheless remain proportionate to the specifications in Figure 4;

(b) the background of the label shall be 100% white;

(c) the typeface shall be Verdana;

(d) the dimensions and specifications of the elements in the label shall be as indicated in Figure 4;

(e) colours shall be CMYK — cyan, magenta, yellow and black following this example: 0,70,100,0: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black;

(f) The label shall fulfil all of the following requirements (numbers refer to Figure 4):

❶ the colours of the EU logo shall be as follows:

(a) the background: 100,80,0,0;

(b) the stars: 0,0,100,0;

❷ the colour of the energy logo shall be: 100,80,0,0;

❸ the QR code shall be 100 % black;

❹ the trademark shall be 100 % black and in Bold 9 pt;

❺ the model identifier shall be 100 % black and in Regular 9 pt;

❻ the A to G scale shall be as follows:

(a) the letters of the energy efficiency scale shall be 100 % white and in Bold 16 pt; the letters shall be centred on an axis at 4,5 mm from the left side of the arrows;

(b) the colours of the A to G scale arrows shall be as follows:

(i) A-class: 100,0,100,0;

(ii) B-class: 70,0,100,0;

(iii) C-class: 30,0,100,0;

(iv) D-class: 0,0,100,0;

(v) E-class: 0,30,100,0;

(vi) F-class: 0,70,100,0;

(viii) G-class: 0,100,100,0;

❼ the internal dividers shall have a weight of 0,5 pt and the colour shall be 100 % black;

❽ the letter of the energy efficiency class shall be 100 % white and in Bold 20 pt. The energy efficiency class arrow and the corresponding arrow in the A to G scale shall be positioned in such a way that their tips are aligned. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow which shall be 100 % black;

❾ the lines of the pictograms shall have a weight of 1 pt and shall be 100% black;

❿ the number of the Regulation shall be 100 % black and in Regular 5 pt.

ANNEX IV

Measurements and calculation methods referred to in Article 5

For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards the reference numbers of which have been published for this purpose in the *Official Journal of the European Union* or using other reliable, accurate and reproducible methods, which take into account the generally recognised state-of-the-art methods and are in line with the provisions set out below.

Where a parameter is declared pursuant to Article 3(3) of Regulation (EU) 2017/1369 and in accordance with Table 4of Annex VI to this Regulation, its declared value shall be used by the supplier for the calculations in this Annex.

1. GENERAL CONDITIONS FOR MEASUREMENTS AND CALCULATIONS

(1) Solid fuel boilers shall be tested for the preferred fuel.

(2) Declared values for rated and part load and for seasonal space heating energy efficiency shall be rounded to the nearest one decimal place.

(3) Declared values for seasonal space heating emissions shall be rounded to the nearest integer.

2. CALCULATION OF THE ENERGY EFFICIENCY INDEX

The Energy Efficiency Index (EEI) of solid fuel boilers is:

$$EEI = \eta_s$$

3. GENERAL CONDITIONS FOR THE SEASONAL SPACE HEATING ENERGY EFFICIENCY OF SOLID FUEL BOILERS

(1) The useful efficiency values η_n, η_p and the useful heat output values P_n, P_p shall be measured, as appropriate. For solid fuel cogeneration boilers the electrical efficiency value $\eta_{el,n}$ shall also be measured.

(2) The seasonal space heating energy efficiency η_s shall be calculated as the seasonal space heating energy efficiency in active mode η_{son}, corrected by contributions accounting for temperature controls, auxiliary electricity consumption, and, for solid fuel cogeneration boilers, by adding the electrical efficiency multiplied by 2,65.

(3) The consumption of electricity shall be multiplied by the conversion coefficient (*CC*).

4. SPECIFIC CONDITIONS FOR THE SEASONAL SPACE HEATING ENERGY EFFICIENCY OF SOLID FUEL BOILERS

(1) The seasonal space heating energy efficiency of solid fuel boilers η_s, except solid fuel cogeneration boilers, is defined as:

$$\eta_s = \eta_{son} \times \left(1 - F(1) - F(2)\right)$$

where:

(a) η_{son} is the seasonal space heating energy efficiency in active mode expressed in %;

(b) *F(1)* is a correction accounting for a negative contribution to the seasonal space heating energy efficiency due to adjusted contributions of temperature controls. *F(1)* = 0,03;

(c) *F(2)* is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by auxiliary electricity consumption;

(2) The seasonal space heating energy efficiency of solid fuel cogeneration boilers η_s, is defined as:

$$\eta_s = (\eta_{son} + 2{,}65 \times \eta_{el,n}) \times \big(1 - F(1) - F(2)\big)$$

(3) The seasonal space heating energy efficiency in active mode, η_{son}, shall be calculated as follows:

(a) for manually stoked solid fuel boilers that can be operated at 50% of the rated heat ouput in continuous mode, and for automatically stoked solid fuel boilers:

$$\eta_{son} = 0{,}85 \times \eta_p + 0{,}15 \times \eta_n$$

where

– η_n is the useful efficiency at nominal heat output;

– η_p is the useful efficiency at 30% of the nominal heat output for automatically stoked solid fuel boilers or the useful efficiency at 50% of the nominal heat output for manually stoked solid fuel boilers;

(b) for manually stoked solid fuel boilers that cannot be operated at 50% or less of the rated heat output in continuous mode, and for solid fuel cogeneration boilers:

$$\eta_{son} = \eta_n$$

(4) *F(2)* shall be calculated as follows:

(a) for manually stoked solid fuel boilers that can be operated at 50% of the rated heat output in continuous mode, and for automatically stoked solid fuel boilers:

$$F(2) = \frac{CC \times (0{,}15 \times el_{max} + 0{,}85 \times el_{min})}{0{,}15 \times P_n + 0{,}85 \times P_p}$$

(b) for manually stoked solid fuel boilers that cannot be operated at 50% or less of the rated heat output in continuous mode, and for solid fuel cogeneration boilers:

$$F(2) = \frac{CC \times el_{max}}{P_n}$$

5. CALCULATION OF GROSS CALORIFIC VALUE

The gross calorific value (*GCV*) shall be obtained from the gross calorific value moisture free (GCV_{mf}) by applying the following conversion:

$$CGV = CGV_{mf} \times (1 - M)$$

where:

– *GCV* and GCV_{mf} are expressed in megajoules per kilogram;

– *M* is moisture content of the fuel, expressed as a proportion.

6. SEASONAL SPACE HEATING POLLUTANT EMISSIONS

(1) PM measurement shall be based on sampling a partial dry flue gas sample over a heated filter.

(2) The seasonal space heating emissions E_s of PM shall be calculated as follows:

(a) for manually stoked solid fuel boilers that can be operated at 50% of the rated heat output in continuous mode, and for automatically stoked solid fuel boilers:

$$E_s = 0{,}85 \times E_{s,p} + 0{,}15 \times E_{s,n}$$

(b) for manually stoked solid fuel boilers that cannot be operated at 50% or less of the rated heat output in continuous mode, and for solid fuel cogeneration boilers:

$$E_s = E_{s,n}$$

where:

(a) $E_{s,p}$ are the emissions of PM measured at 30% or 50% of rated heat output, as applicable;

(b) $E_{s,r}$ are the emissions of PM at rated heat output;

7. SPECIFIC CONDITIONS FOR THE SEASONAL SPACE HEATING ENERGY EFFICIENCY OF A PACKAGE OF A SOLID FUEL BOILER, SUPPLEMENTARY HEATERS, TEMPERATURE CONTROLS AND SOLAR DEVICES

The seasonal space heating efficiency of a package of a solid fuel boiler, supplementary heaters, solar devices and temperature controls $\eta_{s,pack}$ shall be calculated as laid down in point 13 of Annex VIII to Regulation (EU) *[OP – please insert Regulation number of the Energy labelling Regulation for space heaters]*, with $f_{tank} = 1$.

ANNEX V
Product information sheet referred to in Article 3

Pursuant to Article 3(1), point (b) and Article 3(2), point (b), the supplier shall enter into the product database the information as set out in Table 3 for the preferred fuel.

Where the product is a package of solid fuel boilers, supplementary heaters, solar devices and temperature controls, the appropriate additional information as laid down in Annex IV to *[OP – please insert Regulation number of the Energy labelling Regulation for space heaters]* will also be entered into the public part of the product database.

The user manual or other literature provided with the product shall clearly indicate the link to the model in the product database as a human-readable Uniform Resource Locator (URL) or as a QR code or by providing the product registration number.

Table 3

Product information sheet

Trade mark ([a]) ([c])				
Model identifier ([a]) ([c])				
Combination heater	[y/n] if yes then fill in the product information sheet for water heating of combination heaters, in Annex IV to *[OP – please insert Regulation number of the Energy labelling Regulation for space heaters]*			
Cogeneration boiler	[y/n]			
Preferred fuel	[Log wood, moisture content ≤ 25%/Chipped wood, moisture content 15-35%/ Chipped wood, moisture content > 35%/ Compressed wood/ Sawdust, moisture content ≤ 50%/ Other woody biomass/Non-woody biomass/Bituminous coal/Brown coal/Coke/Anthracite/Other fossil fuel]			
Package	[No/Yes] [if Yes, then specify: with solar-device/ temperature control/ other space heater(s)/cascade of x of the same heaters]			
Rated heat output (kW) ([b])	x,x			
Energy efficiency class ([b]) ([d])	[A/B/C/D/E/F/G]			
Seasonal space heating energy efficiency ([b])	x,x			
Pollutant emission class ([b]) ([d])	[A/B/C/D]			
Seasonal space heating pollutant emissions (mg/m^3) ([b])	PM	OGC	CO	NOx
	x	x	x	x
Cogeneration electric power output (kW) ([b]) ([f])	x,x			
Weblink to information on spare parts availability for professional repairers and end users ([a]) ([c]) ([g])	https://xxx			
Weblink to repair instructions for end-users ([a]) ([c]) ([h])	https://xxx			
Weblink to indicative pre-tax prices ([a]) ([c]) ([i])	https://xxx			
Minimum duration of the guarantee offered by the supplier ([a]) ([c])				
Specific information on assembly, installation,	[in separate text section]			

maintenance as well as disassembly, recycling and/or disposal at end-of-life ([a]) ([c])	

Supplier's address ([a]) ([c]) ([d])

Additional information ([a]) ([c])

Link to the supplier's website, where the information in point 6 of Annex II to Regulation *[OP – please insert Regulation number of accompanying Ecodesign Regulation]* ([c]) [2]is found:

([a]) This item shall not be considered relevant for the purpose of Article 2(6) of Regulation (EU) 2017/1369.
([b]) For the preferred fuel.
([c]) Changes to those items shall not be considered relevant for the purpose of Article 4(4) of Regulation (EU) 2017/1369.
([d]) If the product database automatically generates the definitive content of that cell the supplier shall not enter those data.
([e]) If applicable.
([f]) Only for solid fuel cogeneration boilers.
([g]) The suppliers' obligation is to include the weblink to the website where the relevant information will be available. Effective access to the website is nevertheless to be granted in accordance with the timeline and provisions laid down in Annex II, point 5(1)(b) of Regulation (EU) 2023/XXX *[OP – please insert the number of accompanying Ecodesign Regulation]*.
([h]) The suppliers' obligation is to include the weblink to the website where the relevant information will be available. Effective access to the website is nevertheless to be granted in accordance with the timeline and provisions laid down in Annex II, point 5(1)(d) of Regulation (EU) 2023/XXX *[OP – please insert the number of accompanying Ecodesign Regulation]*.
([i]) The suppliers' obligation is to include the weblink to the website where the relevant information will be available. Effective access to the website is nevertheless to be granted in accordance with the timeline and provisions laid down in Annex II, point 5(1)(f) of Regulation (EU) xx/yy [*[OP – please insert the number of accompanying Ecodesign Regulation]*.

[2] *[OP – please insert complete name and OJ of accompanying Ecodesign Regulation]*.

ANNEX VI
Technical documentation referred to in Article 3

1. The technical documentation referred to in Article 3(1), point (d), shall include:

(a) a general description of the model allowing it to be unequivocally and easily identified;

(b) references to the harmonised standards applied or other measurement standards used;

(c) specific precautions to be taken when the model is assembled, installed, maintained or tested;

(d) the values for the technical parameters set out in Table 4. Those values are considered as the declared values for the purpose of the verification procedure in Annex IX;

(e) the details and the results of calculations performed in accordance with Annex IV;

(f) measurement or testing conditions if not described sufficiently in point (b);

(g) a list of all equivalent models including the model identifier.

The information provided pursuant to points (a) to (g) shall also constitute the mandatory specific parts of the technical documentation that the supplier shall enter into the database, pursuant to Article 12(5) of Regulation (EU) 2017/1369.

Table 4

Technical parameters of the model of solid fuel boiler model and their declared values

Stoking mode: [Manual/Automatic]	UNIT	VALUE
Condensing boiler: [yes/no]		
Solid fuel cogeneration boiler: [yes/no]		
Combination boiler: [yes/no]		
Preferred fuel ([1]): [Log wood, moisture content ≤ 25%/Chipped wood, moisture content 15-35%/ Chipped wood, moisture content > 35%/ Compressed wood/ Sawdust, moisture content ≤ 50%/ Other woody biomass/Non-woody biomass/Bituminous coal/Brown coal/Coke/Anthracite/Other fossil fuel]		
Other suitable fuel(s) ([2]): [Log wood, moisture content ≤ 25%/Chipped wood, moisture content 15-35%/ Chipped wood, moisture content > 35%/ Compressed wood/ Sawdust, moisture content ≤ 50%/ Other woody biomass/Non-woody biomass/Bituminous coal/Brown coal/Coke/Anthracite/Other fossil fuel]		
Rated heat output (P_n)	kW	x,x
Part load (P_p)	kW	x,x
Useful energy efficiency at rated heat output (η_n) ([3])	%	x,x
Useful energy efficiency at part load (η_p) ([3])	%	x,x
Seasonal space heating energy efficiency (η_s) ([3])	%	x,x
Seasonal space heating particulate matter (PM) emissions ([3])	(mg/m^3)	x
Seasonal space heating organic gaseous compounds (OGC) emissions ([3])	(mg/m^3)	x
Seasonal space heating carbon monoxide (CO) emissions ([3])	(mg/m^3)	x
Seasonal space heating nitrogen oxydes (NOx) emissions ([3])	(mg/m^3)	x
Auxiliary electricity consumption at rated heat output (el_{max})	kW	x,x
Auxiliary electricity consumption at part load (el_{min})	kW	x,x
Electrical efficiency ($\eta_{el,n}$)	kW	x,x

([1]) Only one fuel possible
([2]) Several fuels possible
([3]) For the preferred fuel and other suitable fuels

2. For packages of a solid fuel boiler, supplementary heaters, temperature controls and solar devices, the technical documentation referred to Article 3(2), point (d), shall include:

(a) a general description of the model comprising the package of a solid fuel boiler, supplementary heaters, temperature controls and solar devices, allowing it to be unequivocally and easily identified;

(b) references to the harmonised standards applied or other measurement standards used;

(c) specific precautions to be taken when the package of a solid fuel boiler, supplementary heaters, temperature controls and solar devices is assembled, installed, maintained or tested;

(d) the information listed in paragraph 1, points (b) to (g) of this Annex for the solid fuel boiler;

(e) the details and the results of calculations performed in accordance with Annex IV;

(f) measurement or testing conditions if not described sufficiently in point (b);

(g) the energy efficiency index of the model of the package of a solid fuel boiler, supplementary heaters, temperature controls and solar devices;

The information provided pursuant to points (a) to (g) shall also constitute the mandatory specific parts of the technical documentation that the supplier shall enter into the database, pursuant to Article 12(5) of Regulation (EU) 2017/1369.

ANNEX VII

Information to be provided in visual advertisements, in technical promotional material and in distance selling, printed and over the Internet

1. In visual advertisements, in technical promotional material and in paper-based distance selling and telemarketing, for the purposes of ensuring conformity with the requirements laid down in Article 3 and in Article 4, the model efficiency class and the range of efficiency classes shall be shown as indicated in Figure 5, in accordance with the following specifications:

   (a) a "class arrow" shall be used, containing the letter of the energy efficiency positioned in the centre of the rectangular part of the arrow;

   (b) the class arrow shall have a border and the internal background colour shall match the colour of the energy efficiency class in the full label;

   (c) the typeface of the "class letter" shall be Verdana, Bold, 100 % White, with an outline in 100 % black and in a size equivalent to that of the price, if the price is shown;

   (d) the range of available energy efficiency classes shall be in Verdana 100 % black on a white background;

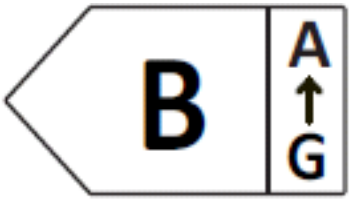
Figure5: Coloured class arrow, with range of energy efficiency classes

2. By way of derogation, if the visual advertisement, technical promotional material or paper-based distance selling is printed in monochrome, the energy efficiency class and the range of energy efficiency classes can be shown, as indicated in Figure 6, and letter (c) and (d) of point 1 are replaced by the following:

   (a) the class arrow shall have a border and the internal background shall be uncoloured, matching the colour of the background support;

   (b) the typeface of the "class letter" shall be Verdana, Bold, 100 % Black and in a size equivalent to that of the price, if the price is shown;

Figure 6: Monochrome class arrow, with range of energy efficiency classes



3. The class-arrow image shall be shown in proximity to the price of the product.

4. For all the situations mentioned in point 1 above, the customer shall be given access to the full product information via a link to the product registration in the product database EPREL (as URL or printed QR code).

5. In visual advertisements, in technical promotional material and in paper-based distance selling and telemarketing on the internet, for the purposes of ensuring conformity with the requirements laid down in Article 3 and in Article 4, the model efficiency class and the range of efficiency classes shall be shown as indicated in Figure 5, in accordance with the following additional specifications:

   (a) the class-arrow image shall be the nested display of the full label set out in Annex III and shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the image;

   (b) the full label shall be displayed by pop up, new tab, new page or inset screen display;

   (c) for magnification of the label on tactile screens, the device conventions for tactile magnification shall apply;

   (d) the label shall cease to be displayed by means of a close option or other standard closing mechanism;

   (e) the alternative text for the image shall be the energy efficiency class of the product model;

   (f) a text indicating "Product information sheet", in proximity to the class arrow, shall give direct access to the Product Information Sheet as available from EPREL, or to the product model page in EPREL.

ANNEX VIII

Verification procedure for market surveillance purposes

1. The verification tolerances defined in this Annex relate only to the verification by Member State authorities of the declared values and shall not be used by the supplier as an allowed tolerance to establish the values in the technical documentation or in interpreting those values with a view to achieving compliance or to communicate better performance by any means.

2. The values and classes published on the label or in the product information sheet shall not be more favourable for the supplier than the values declared in the technical documentation.

3. Where a model has been designed to be able to detect that it is being tested (e.g. by recognising the test conditions or test cycle), and to react specifically by automatically altering its performance during the test with the objective of reaching a more favourable level for any of the parameters specified in this Regulation or included in the technical documentation or included in any of the documentation provided, the model and all equivalent models shall be considered not compliant.

4. As part of verifying the compliance of a product model with the requirements laid down in this Regulation, the authorities of the Member States shall apply the following procedure:

   (a) The Member State authorities shall verify one single unit of the model pursuant to points 2(a), (b) and (c).

   (b) The model and all equivalent models shall be considered to comply with the applicable requirements if:

(i) the declared values given in the technical documentation pursuant to Article 3(3) of Regulation (EU) 2017/1369, and, where applicable, the values used to calculate such declared values, are not more favourable for the supplier than the corresponding values given in the test reports;

(ii) the values published on the label and in the product information sheet are not more favourable for the supplier than the declared values, and the indicated energy efficiency class and the pollutant emissions class are not more favourable for the supplier than the class determined by the declared values;

(iii) the determined values, that is to say the values of the relevant parameters as measured in testing and the values calculated from these measurements comply with:

(a) the validity criteria set out in Table 5;

(b) the respective verification tolerances set out in Table 5.

5. Where the results referred to in paragraph 4(b), points (i) or (ii) are not achieved, the model and all equivalent models shall be considered not in compliance with this Regulation.

6. Where the result referred to in paragraph 4(b), point (iii) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more equivalent models.

7. The model and all equivalent models shall be considered to comply with the applicable requirements where for the three units referred to in point 6, the arithmetical mean of the determined values complies with the respective verification tolerances set out in Table 5.

8. Where the result referred to in point 7 is not achieved, the model and all equivalent models shall be considered not in compliance with this Regulation.

9. The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay after a decision is taken on the non-compliance of the model pursuant paragraphs 2, 3, 5 or 8.

10. The Member State authorities shall use the measurement and calculation methods set out in Annex IV.

11. The Member State authorities shall only apply the verification tolerances that are set out in Table 5 and shall only use the procedure described in points 1 to 8 for the requirements referred to in this Annex. For the parameters set out in Table 5 no other verification tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

Table 5
Verification tolerances and validity criteria

Parameter	**Verification tolerances**
EEI	The determined value* shall not be lower than the declared value by more than 6 %.
Seasonal space heating PM emissions	The determined value* shall not be lower than the declared value by more than 6 %.
Seasonal space heating	The determined value* shall not be lower than the declared value

CO emissions	by more than 6 %.
Seasonal space heating NOx emissions	The determined value* shall not be lower than the declared value by more than 6 %.
Seasonal space heating OGC emissions	The determined value* shall not be lower than the declared value by more than 6 %.

* Where three additional units are tested in accordance with point 6, the determined value means the arithmetical mean of the values determined for those three additional units.