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COMMISSION REGULATION (EU) No .../..

of **XXX**

**implementing Directive 2009/125/EC of the European Parliament and of the Council
with regard to ecodesign requirements for solid fuel boilers**

(Text with EEA relevance)

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products¹, and in particular Article 15(1) thereof,

After consulting the Consultation Forum referred to in Article 18 of Directive 2009/125/EC,

Whereas:

- (1) Directive 2009/125/EC requires the Commission to set ecodesign requirements for energy-related products that represent significant volumes of sales and trade, that have a significant environmental impact and that present significant potential for improvement in terms of their environmental impact without entailing excessive costs.
- (2) Article 16(2) of Directive 2009/125/EC provides that in accordance with the procedure referred to in Article 19(3) and the criteria set out in Article 15(2), and after consulting the Consultation Forum, the Commission should, if appropriate, introduce implementing measures for products offering a high potential for cost-effective reduction of greenhouse gas emissions, such as heating equipment, including solid fuel boilers and packages of a solid fuel boiler, supplementary heaters, temperature controls and solar devices.
- (3) The Commission has carried out a preparatory study to analyse the technical, environmental and economic aspects of the solid fuel boilers typically used in households and for commercial purposes. The study has been carried out with stakeholders and interested parties from the Union and third countries, and the results have been made publicly available.
- (4) The environmental aspects of solid fuel boilers that have been identified as significant for the purposes of this Regulation are energy consumption in the use phase and

¹ OJ L 285, 31.10.2009, p. 10.

emissions of particulate matter (dust), organic gaseous compounds, carbon monoxide and nitrogen oxides in the use phase. The annual energy consumption related to solid fuel boilers is expected to be 530 petajoules ('PJ') (approximately 12.7 million tonnes of oil equivalent 'Mtoe') in 2030 and annual emissions are expected to be 25 kilotonnes ('kt') of particulate matter, 25 kt of organic gaseous compounds and 292 kt of carbon monoxide in 2030. Emissions of nitrogen oxides are expected to increase because of potential new solid fuel boiler designs aiming at higher energy efficiency and lower organic emissions. The preparatory study shows that use-phase energy consumption and emissions by solid fuel boilers can be significantly reduced.

- (5) The preparatory study shows that further requirements regarding ecodesign parameters for products referred to in Part 1 of Annex I to Directive 2009/125/EC are not necessary in the case of solid fuel boilers. In particular, emissions of dioxins and furans are not identified as significant.
- (6) Boilers generating heat exclusively for providing hot drinking or sanitary water, boilers for heating and distributing gaseous heat transfer media and cogeneration boilers with an electrical capacity of 50 kW or more have specific technical characteristics and should therefore be exempted from this Regulation. Non-woody biomass boilers are exempted, because at present there is insufficient European-wide information to determine appropriate levels for the ecodesign requirements for them and they may have further significant environmental impacts, such as furan and dioxin emissions. The appropriateness of setting ecodesign requirements for non-woody boilers will be reassessed when reviewing this Regulation.
- (7) The energy consumption and emissions of solid fuel boilers could be reduced by applying existing non-proprietary technologies without an increase in the combined costs of purchasing and operating these products.
- (8) The combined effect of the ecodesign requirements set out in this Regulation and Commission Delegated Regulation (EU) No ... of ... supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of solid fuel boilers and packages of a solid fuel boiler, supplementary heaters, temperature controls and solar devices² is estimated to result by 2030 in annual energy savings of approximately 18 PJ (approximately 0.4 Mtoe), together with related carbon dioxide ('CO₂') emission reductions of approximately 0.2 Mt, and a reduction of 10 kt in particulate matter, 14 kt in organic gaseous compounds, and 130 kt in carbon monoxide.
- (9) Ecodesign requirements should harmonise energy consumption and emission requirements for solid fuel boilers throughout the Union, for the internal market to operate better and in order to improve the environmental performance of those products.
- (10) The ecodesign requirements should not affect the functionality or affordability of solid fuel boilers from the end-user's perspective and should not negatively affect health, safety or the environment.

² OJ [...] [...], [...], [...].

- (11) The introduction of ecodesign requirements should give manufacturers sufficient time to redesign their products subject to this Regulation. The timing should take into account the impact on manufacturers' costs, in particular for small and medium-sized enterprises, while ensuring timely achievement of the objectives of this Regulation.
- (12) Product parameters should be measured and calculated using reliable, accurate and reproducible methods which take into account recognised state-of-the-art measurement and calculation methods, including, where available, harmonised standards adopted by the European standardisation organisations following a request by the Commission, in accordance with the procedures laid down in Regulation (EU) 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation³.
- (13) In accordance with Article 8 of Directive 2009/125/EC, this Regulation specifies which conformity assessment procedures apply. While it is appropriate to review the appropriateness of third party certification at the same time as required by Commission Regulation (EU) No 813/2013⁴ it is neither desirable nor seems feasible to make changes to the conformity assessment of solid fuel boilers before the entry into force of the ecodesign requirements.
- (14) In order to facilitate compliance checks, manufacturers should provide the information contained in the technical documentation referred to in Annexes IV and V to Directive 2009/125/EC insofar as that information relates to the requirements laid down in this Regulation.
- (15) To further limit the environmental impact of solid fuel boilers, manufacturers should provide information on disassembly, recycling and disposal.
- (16) In addition to the legally binding requirements laid down in this Regulation, indicative benchmarks for best available technologies should be determined to ensure that information on the life-cycle environmental performance of solid fuel boilers is widely available and easily accessible.
- (17) The measures provided for in this Regulation are in accordance with the opinion of the Committee established under Article 19(1) of Directive 2009/125/EC,

HAS ADOPTED THIS REGULATION:

Article 1
Subject matter and scope

1. Without prejudice to Directive 2010/75/EU of the European Parliament and of the Council⁵, this Regulation establishes ecodesign requirements for placing on the market and putting into service solid fuel boilers with a rated heat output of 500 kilowatt ('kW') or less, including those integrated in packages of a solid fuel boiler,

³ OJ L 316, 14.11.2012, p. 12.

⁴ OJ L 239, 6.9.2013, p. 136.

⁵ OJ L 334, 17.12.2010, p. 17.

supplementary heaters, temperature controls and solar devices as defined in Article 2 of Commission Delegated Regulation (EU) No .../....⁶.

2. This Regulation shall not apply to:
- (a) boilers generating heat exclusively for providing hot drinking or sanitary water;
 - (b) boilers for heating and distributing gaseous heat transfer media such as vapour or air;
 - (c) solid fuel cogeneration boilers with a maximum electrical capacity of 50 kW or more;
 - (d) non-woody biomass boilers.

Article 2 **Definitions**

In addition to the definitions set out in Article 2 of Directive 2009/125/EC, the following definitions shall apply for the purposes of this Regulation:

- (1) ‘solid fuel boiler’ means a device equipped with one or more solid fuel heat generators that provides heat to a water-based central heating system in order to reach and maintain at a desired level the indoor temperature of one or more enclosed spaces, with a heat loss to its surrounding environment of not more than 6 % of rated heat output;
- (2) ‘water-based central heating system’ means a system using water as a heat transfer medium to distribute centrally generated heat to heat emitting devices for the heating of enclosed spaces within buildings or parts thereof, including block heating or district heating networks;
- (3) ‘solid fuel heat generator’ means the part of a solid fuel boiler that generates the heat through the combustion of solid fuels;
- (4) ‘rated heat output’ or ‘Pr’ means the declared heat output of a solid fuel boiler when providing heating of enclosed spaces with the preferred fuel, expressed in kW;
- (5) ‘solid fuel’ means a fuel that is solid at normal indoor room temperatures, including solid biomass and solid fossil fuel;
- (6) ‘biomass’ means the biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste;
- (7) ‘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;

⁶ OJ [...] [...], [...], [...].

- (8) ‘non-woody biomass’ means biomass other than woody biomass, including straw, miscanthus, reeds, kernels, grains, olive stones, olive cakes and nut shells;
- (9) ‘fossil fuel’ means fuel other than biomass, including anthracite, brown coal, coke, bituminous coal; for the purposes of this Regulation it also includes peat;
- (10) ‘biomass boiler’ means a solid fuel boiler that uses biomass as the preferred fuel;
- (11) ‘non-woody biomass boiler’ means a biomass boiler that uses non-woody biomass as the preferred fuel and for which woody biomass, fossil fuel or a blend of biomass and fossil fuel are not listed among its other suitable fuels;
- (12) ‘preferred fuel’ means the single solid fuel which is to be preferably used for the boiler according to the manufacturer’s instructions;
- (13) ‘other suitable fuel’ means a solid fuel, other than the preferred fuel, which can be used in the solid fuel boiler according to the manufacturer’s instructions and includes any fuel that is mentioned in the instruction manual for installers and end-users, on free access websites of manufacturers, in technical promotional material and in advertisements;
- (14) ‘solid fuel cogeneration boiler’ means a solid fuel boiler capable of simultaneously generating heat and electricity;
- (15) ‘seasonal space heating energy efficiency’ or ‘ η_s ’ means the ratio between the space heating demand for a designated heating season supplied by a solid fuel boiler and the annual energy consumption required to meet that demand, expressed in %;
- (16) ‘particulate matter’ means particles of various shape, structure and density scattered in the gaseous phase of the flue gas.

For the purposes of Annexes II to V, additional definitions are set out in Annex I.

Article 3 ***Ecodesign requirements and timetable***

1. The ecodesign requirements for solid fuel boilers are set out in Annex II.
2. Solid fuel boilers shall meet the requirements set out in point 1 and 2 of Annex II from 1 January 2020.
3. Compliance with ecodesign requirements shall be measured and calculated in accordance with the methods set out in Annex III.

Article 4 ***Conformity assessment***

1. The conformity assessment procedure referred to in Article 8(2) of Directive 2009/125/EC shall be the internal design control set out in Annex IV to that Directive or the management system set out in Annex V to that Directive.

2. For the purposes of the conformity assessment pursuant to Article 8 of Directive 2009/125/EC, the technical documentation shall contain the information set out in point 2(c) of Annex II to this Regulation.

Article 5

Verification procedure for market surveillance purposes

Member States shall apply the verification procedure set out in Annex IV to this Regulation when performing the market surveillance checks referred to in Article 3(2) of Directive 2009/125/EC to ensure compliance with the requirements set out in Annex II to this Regulation.

Article 6

Indicative benchmarks

The indicative benchmarks for best-performing solid fuel boilers available on the market at the time of entry into force of this Regulation are set out in Annex V.

Article 7

Review

1. The Commission shall review this Regulation in the light of technological progress and present the result of that review to the Consultation Forum no later than 1 January 2022. In particular, the review shall assess whether it is appropriate:
 - (a) to include solid fuel boilers with a rated heat output of up to 1 000 kilowatt;
 - (b) to include non-woody biomass boilers, with ecodesign requirements for their specific types of pollutant emissions;
 - (c) to set stricter ecodesign requirements beyond 2020 for energy efficiency and for emissions of particulate matter, organic gaseous compounds and carbon monoxide; and
 - (d) to vary the verification tolerances.
2. The Commission shall review whether it is appropriate to introduce third party certification for solid fuel boilers and present the result of that review to the Consultation Forum no later than 22 August 2018.

Article 8

Transitional provision

Until 1 January 2020 Member States may allow the placing on the market and putting into service of solid fuel boilers which are in conformity with the national provisions in force regarding seasonal space heating energy efficiency, and emissions of particulate matter, organic gaseous compounds, carbon monoxide and nitrogen oxides.

Article 9
Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the Commission
The President
Jean-Claude JUNCKER