

**UNECE**

# **Code of good practice for wood-burning and small combustion installations**



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[www.unece.org/env/lrtap/welcome.html](http://www.unece.org/env/lrtap/welcome.html)

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# I.

## Introduction



1. The Executive Body at its thirty-seventh session (Geneva, 11–14 December 2017) adopted the 2018–2019 workplan for the implementation of the Convention (ECE/EB.AIR/140/Add.1), which included item 2.3.8, assigning to the Task Force on Techno-economic Issues the task of developing a code of good practice for solid-fuel burning and small combustion installations. This item was included in line with the respective recommendation of the ad hoc policy review group of experts (policy review group) (ECE/EB.AIR/WG.5/2017/3 and Corr.1, para. 25 (b)) on the 2016 scientific assessment of the Convention.<sup>1</sup>
2. The initial document was developed by experts of the Italian National Agency for New Technologies, Energy and Sustainable Economic Development and the environmental authorities of the Italian regions of Lombardy, Friuli-Venezia-Giulia and Veneto and further elaborated and finalized by the technical secretariat of the Task Force on Techno-economic Issues,<sup>2</sup> in cooperation with an expert from Belgium and with a contribution from other members of the Task Force led by France and Italy.
3. At its thirty-ninth session (Geneva, 9–13 December 2019), the Executive Body adopted the code of good practice for wood-burning and small combustion installations contained in document ECE/EB.AIR/2019/5 by decision 2019/3 (ECE/EB.AIR/144/Add.1).

# *II.*

## Subject matter and scope



4. Item 2.3.8 of the 2018–2019 workplan, on the development of a code of good practice for solid-fuel burning and small combustion installations based on best available techniques, was included in line with the respective recommendation of the policy review group. The policy review group provided a rationale for such a recommendation to the Working Group on Strategies and Review at its fifty-fifth session (Geneva, 31 May–2 June 2017) (see informal document No. 6).
5. In line with the task included in workplan item 2.3.8 and the rationale presented by the policy review group, the present document covers the following deliverables:
  - a) Good practices for domestic wood heating installations;
  - b) Best available techniques for domestic wood heating installations.
6. The current document focuses on wood biomass only. It provides an overview of guidance documents, codes of good practice and communication materials with respect to domestic wood heating in several countries of the United Nations Economic Commission for Europe (ECE) region. In the future, depending on the information made available on solid fuels other than wood biomass, the present code of good practice could be further expanded, or a new separate code could be developed on domestic coal burning.
7. The present code of good practice can be applied to small wood fuel combustion installations for benzo[a]pyrene (B(a)P), in the ECE region, resulting in poor local air quality conditions and significant negative effects on human health. The present document responds to the need to inform the general public of:
  - a) Available best practices for domestic wood heating in order to minimize emissions and increase efficiency, reducing expenditure due to decreased storage needs and the use of wood, while reducing the negative impact on the environment and human health;
  - b) The best heating devices currently available on the market;
  - c) The proper origin and characteristics of wood biomass and the need to burn dry, clean wood and thus to avoid use of composite, treated and/or contaminated wood.
9. In particular, old models of stoves and fireplaces are inefficient and can release high levels of emissions. Nevertheless, incorrect use of new, high performance domestic heating devices with low emissions and high efficiency with non-optimal combustion can still cause high levels of emissions and reduce energy efficiency. Besides the type of combustion device, the crucial factors for minimizing real-life emissions are the proper sizing, installation and use of the device, including optimal combustion operation, proper start-up, no smouldering, maintenance and use of dry and clean firewood.

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