



” The Central Register of Buildings Emission – a tool to improve air quality in Poland

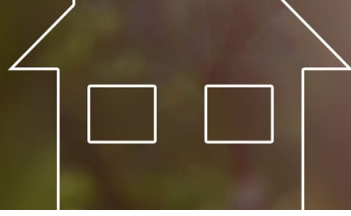
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AMRON CENTRE ANALYSIS

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Nowadays, both citizens and state authorities are increasingly paying attention to the ecological aspects of their activities and attempting to reduce the negative impact of urbanization on the natural environment. One of the disadvantageous phenomena that we as a society have an impact on is the deterioration of air quality. It is mostly caused by the use of outdated heat sources as a method of heating buildings. Pollution from heating sources goes directly to people's areas and can cause contamination concentrations at a level dangerous for health. The biggest emission of pollution is observed during the heating season, when each of us use some source of heating in our houses. The problem intensifies in large cities, where we are dealing with the high intensity of buildings and according to this, with many heat sources causing emissions. Kraków is the leading example of the city that deals with very bad air quality. However, the problem is also not bypassed by suburbs with lower intensity or small towns. Those areas are very often build-up with old buildings, where simple heating sources were installed, causing the highest air pollution in the heating season. First step to improve the air quality in Poland is to identify heat sources occurring in our country. Then it is possible to introduce appropriate mechanisms to facilitate the modernization of outdated installations. For this purpose, in accordance with the Act of 28 October 2020 amending the Act on supporting thermomodernisation and renovation and some other acts (Journal of Laws item 2127), the Central Construction Supervision Office (pol. Główny Urząd Nadzoru Budowlanego) created the Central Register of Buildings Emission (pol. Centralna Ewidencja Emisyjności Budynków).

What is The Central Register of Buildings Emission?

The Central Register of Buildings Emission is a system kept by the Central Construction Supervision Office, which contains comprehensive information about the sources of building heating in Poland. The launch of the database took place on July 1, 2021. Its main goal is to improve air quality by fighting smog and to help in the process of exchanging outdated heating sources. Creation of the system had a direct impact on inhabitants of Poland, because it is mandatory to submit a declaration into the system by each owner or manager of a residential or non-residential building, in which there is any heat source with a power not exceeding 1MW. For facilities, where the sources of heat and fuel burning were launched before July 1, 2021, the declaration had to be submitted mandatory by June 30, 2022. In case of new heat sources (launched after July 1, 2021), the declaration should be submitted within 14 days from the date of its launch. It can be submitted in two ways: electronically or in paper form at the Commune/City Office. It is important that if the declaration is not submitted within the time limit, a fine may be imposed on the owner of the property or building manager. Failure to submit a declaration is also associated with the loss of the possibility to receive 'coal additives' (financial support) or add-ons to other heat sources.

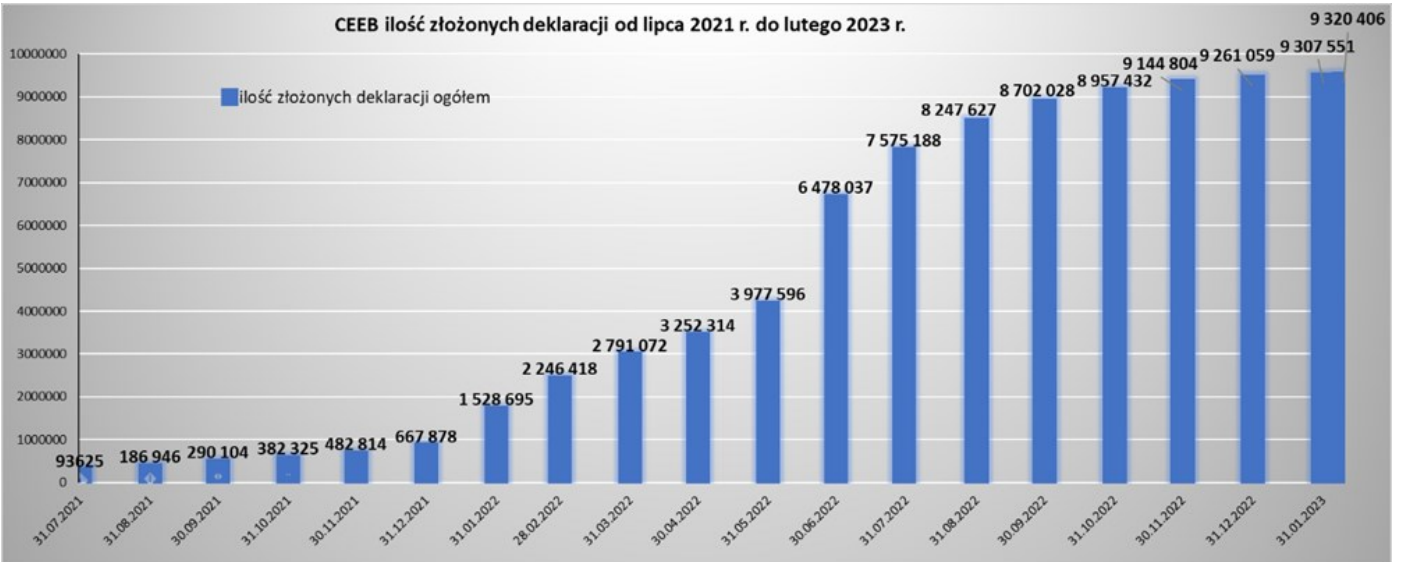
Data collected in The Central Register of Buildings Emission – what is it showing us so far?

The Central Construction Supervision Office specifies that as for February 9, 2023 the database included 9 320 406 declarations. According to Central Statistical Office data, at the end of 2020 there were over 15 million apartments in Poland and over 6 million single-family houses, and in 2021 almost 235 000 new houses and apartments were put into use. Therefore, it can be estimated that the sys-



tem should contain over 20 million declarations. This means that about half of the data has been entered so far. The graphic below presents the increase of data in the system from its launch.

PICTURE 1. NUMBER OF DECLARATIONS SUBMITTED INTO THE CENTRAL REGISTER OF BUILDINGS EMISSION FROM JULY 2021 TO FEBRUARY 2023

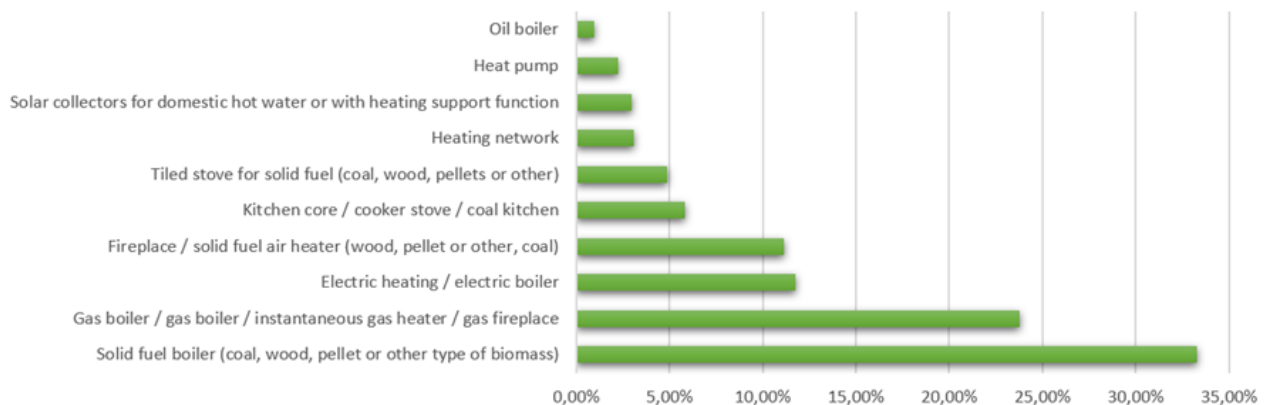


Source: <https://www.gunb.gov.pl/strona/statystyki> (access: 09.02.2023 r.)

Only 667 878 declarations were introduced by the end of 2021. The largest increase of data in the system was observed between May and June 2022. Certainly, it is the result of the deadline for introducing the declarations for heat sources that have been launched before July 1, 2021 (the deadline was June 30, 2022). That occasion almost doubled the data in the system. In 2022, a total of over 8,5 million data was introduced to the database.

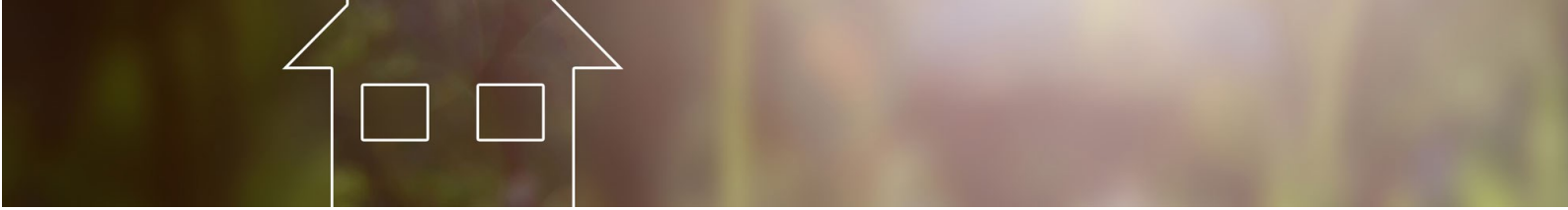
On the basis of the data entered so far, it is possible to carry out a fairly wide analysis of the structure of heat sources due to their type. The following structure results from the collected data.

PICTURE 2. THE STRUCTURE OF HEAT SOURCES IN POLAND DUE TO THEIR TYPE



Source: own study based on <https://www.gunb.gov.pl/strona/statystyki> (access: 09.02.2023 r.)

¹<https://murator-dom.pl/instalacje/instalacja-grzewcza/ruszyl-spis-zrodel-ciepla-ceeb-aa-7qqm-1x23-EDsB.html> (access: 13.02.2023 r.)



It is estimated that over 1/3 of heat sources in Poland are solid fuel boilers. Gas heating is also quite popular. Modern heating sources, such as a heat pump, are still treated as an innovative solution, requiring a lot of financial effort and specialist knowledge. Therefore, they are still not very popular (they constitute less than 5% of all heat sources currently used in the country). The current pro-ecological trends and the search for savings in a wider time horizon, prompts an increasing number of people to install heat pumps in their houses. The use of this heat source requires a lot of investment at the first stage of the installation, but later operating costs are much lower (especially with additional use of photovoltaic panels).

The Central Register of Buildings Emission – and what’s next?

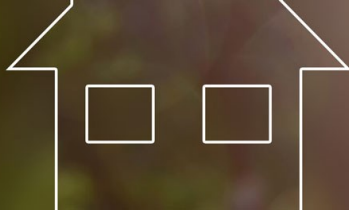
The main goal emerging on the structure of heat sources in Poland is to replace outdated heat sources (i.e. all coal or wood boilers, which do not meet the requirements of at least class 3). Voivodeship authorities in Poland are currently introducing anti-smog acts. They specify the deadline that such installations must be replaced with other, less invasive for the environment. After this date, the use of such outdated heat sources will be prohibited and may result in the imposition of a fine. The graphic below presents the deadlines for each voivodships to replace outdated installations (the names of the voivodships are in polish).



Source: <https://vosti.pl/pompy-ciepła/do-kiedy-musisz-wymienić-kopciucha-poznaj-terminy-dla-swojego-województwa/> (access: 13.03.2023 r.)

In order to speed up the furnace replacement process, local governments offer subsidies for residents. A popular support programme for citizens regarding the exchange of heating sources is the “Clean Air” (pol. “Czyste powietrze”) program implemented by the National Fund for Environmental Protection and Water Management (pol. Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej). Many local governments at lower levels are also conducting information campaigns for the local community and offer their own financial support tools for their residents.

Over 30% of all heating sources in Poland are solid fuel boilers. Certainly many of them are devices with a class 3 or worse. The replacement of these installations with more innovative and “clean” can largely reduce smog in low emission areas. In 2025, in most Polish voivodships it will no longer be possible to use this type of installations, so then we should expect the largest, positive change in the quality of our air.



The universality and comprehensiveness of The Central Register of Buildings Emission is to positively affect the efficiency of low-emission policy management by municipalities. Based on the data collected in the system, local governments are able to obtain a number of facilitations in the grant obtaining process. In 2023, The Central Construction Supervision Office plans to implement new tools for users of heat sources, such as the possibility of ordering chimneys sweep reviews or inventory of buildings. It will also be possible to check the possibility to obtain a financial support for real estate thermomodernisation. The system will contain a list of applicable support programmes for this kind of operations.



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AMRON Centre

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