

WHY WILL ENERGY RENOVATION REDUCE AIR POLLUTION FOR EU CITIZENS?

How do buildings contribute to air pollution?



Buildings are responsible for 40% of energy consumption in the EU.



By burning fossil fuels at home or in a centralised manner for heating, cooling, ventilation, electricity and hot water, pollutants like sulphur dioxide, nitrogen dioxide, benzo[a]pyrene and particulate matter are released into the air.



In fact, energy used in buildings is responsible for 36% of CO₂ emissions in the EU, around half of particulate matter and half of carbon monoxide emission.

What impact on health?

In 2013, long-term exposure to air pollution was responsible for about 436,000 premature deaths in the EU-28.



What impact for the economy?

Direct costs to society from air pollution, including lost working days and higher healthcare costs especially for the elderly and children, amounts to €23 billion yearly.



CASE STUDY

In Poland, single family homes contribute heavily to air pollution because of their poor energy performance and the fact of using outdated solid fuel boilers (ca. 3 million) or relying on polluting heat and power stations.

Burning low quality solid fuel (coal, wood, waste) in obsolete house stoves and boilers causes 40% of particular matter PM10 total emission, 78% of carcinogenic benzo[a]pyrene (BaP) total emission and high emissions of CO₂.

Air pollution in some Polish regions is even higher than in New Delhi, one of the most air polluted places in the world.

EU

Poland

(The concentration of BaP in Poland is 5 times above the EU target level)

In 2050 we should aim at a highly energy efficient building stock

There is enormous untapped potential for reducing the energy consumption in buildings and thereby **improving air quality** across the EU.

By renovating the EU building stock using existing technologies, we can reduce the energy demand by 80% by 2050. This is essential to **cut the emission of pollutants** into the air, and to deliver **cleaner, healthier living conditions** for EU citizens.

The revision of the two major EU buildings-related directives, the EPBD and EED, offer a window of opportunity to enshrine a long-term vision of a highly energy efficient building stock (known as **Nearly Zero Energy Building NZEB**) by 2050 for the benefit of all EU citizens.

#NZEB2050