



How Warsaw combines air quality and climate action with tackling energy poverty

Jacek Kisiel

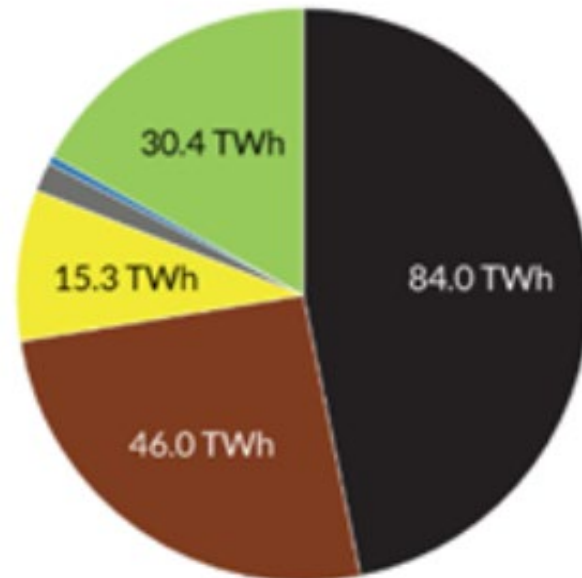
*Deputy Director at the Office of Air Protection
and Climate Policy, City of Warsaw*

Warsaw, January, 2023

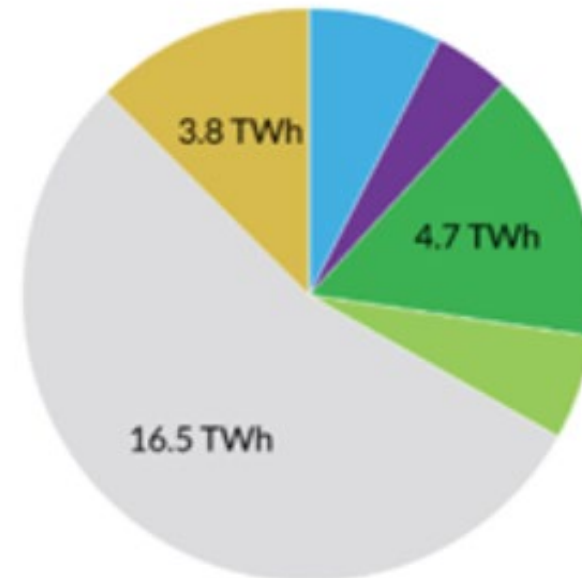


Warsaw

Electricity production in Poland



General



RES



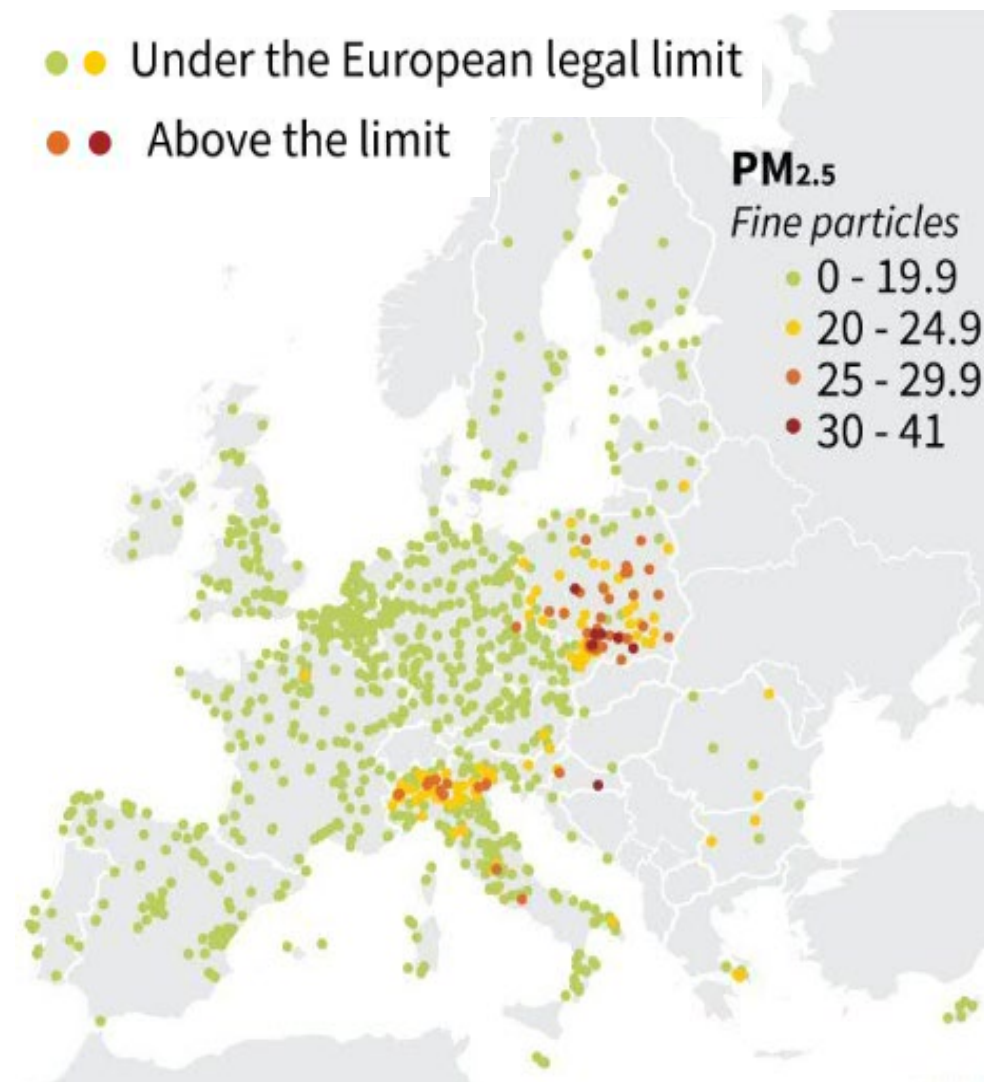
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Air pollution



● ● Under the European legal limit

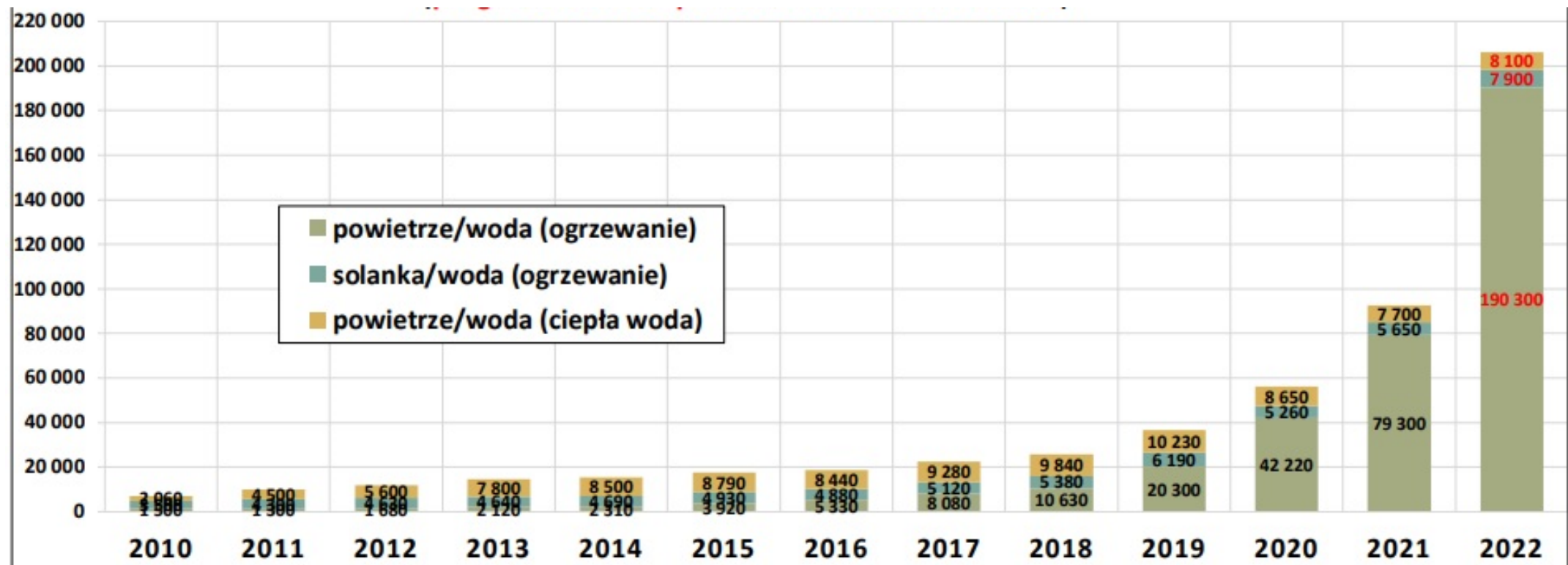
● ● Above the limit





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Sales of heat pumps in Poland





Warsaw Anti-smog Programme

In 2017, Warsaw introduced its own subsidy scheme for the replacement of inefficient boilers. In 2019 we introduced priority subsidies for heat pumps together with pv.

In 2017, there were 15,000 inefficient coal and wood boilers in Warsaw.



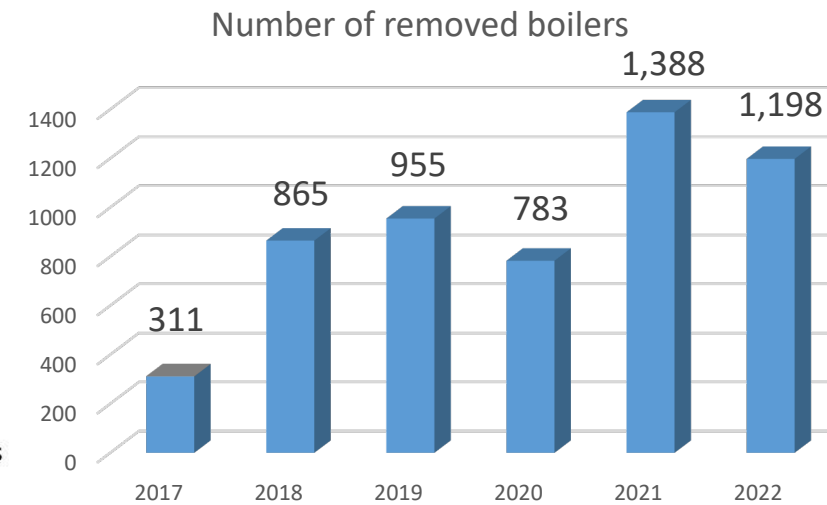
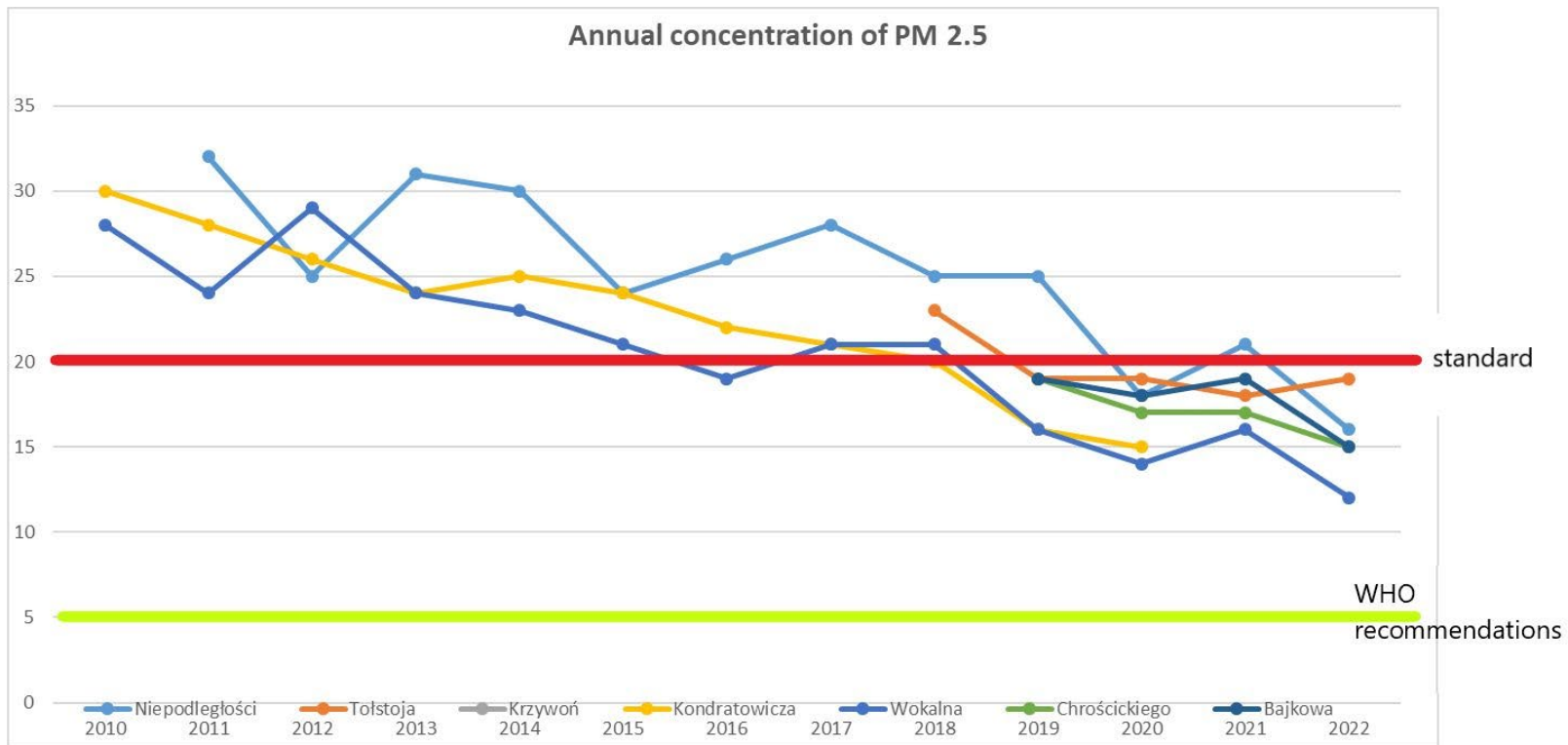
Between 2017 and 2022, 5,500 solid fuel boilers were replaced thanks to municipal subsidies, and the number of boilers fell from 15,000 to 5,000.

In 2017, the regional authorities banned the use of inefficient solid fuel boilers in Warsaw from 1 January 2023.



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Warsaw air quality





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Energy Poverty

Heating device	Fuel/ source of heating	Cost per unit	Annual consumption	Annual cost (euro)
Coal stoves	coal	1500 PLN/t	7,5 t	2 387
Heat pump	electricity	0,81 PLN/kWh	10 041 kWh	1 727
Heat pump + pv	electricity	0,81 PLN/kWh	5 020 kWh	863
Heat pump + retrofitting	electricity	0,81 PLN/kWh	4 683 kWh	805
Heat pump + retrofitting + pv	electricity	0,81 PLN/kWh	2 342 kWh	403



Warsaw

Stop Smog Programme

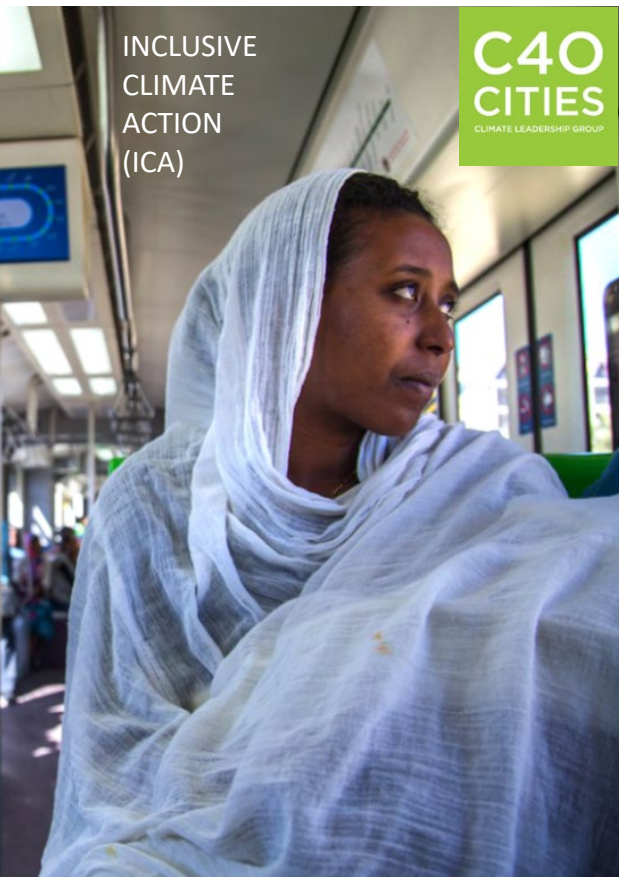
Dedicated to low-income residents

Heaters exchange combined with retrofitting

Co-financed by the government and local government

Reduction of heat energy demand by at least 30%

the maximum grant amount is EUR 12,000



An aerial photograph of Warsaw, Poland, featuring a prominent glass-roofed building in the foreground and a dense urban landscape with various buildings and trees in the background. The entire image is overlaid with a semi-transparent green filter.

Thank you

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