

# Municipal infrastructure - energy and gas in 2022

14.09.2023


**5.0%**

Decrease in the household consumption of electricity in 2022 in comparison to 2021

In Poland in 2022 household consumption of electricity decreased by 5.0%, and the number of consumers increased by 1.8%.

## Electricity

In 2022, household consumption of electricity in Poland decreased by 5.0% compared to 2021 and amounted to 30,062.0 GWh, with an increase in the number of consumers (households) of 1.8%.

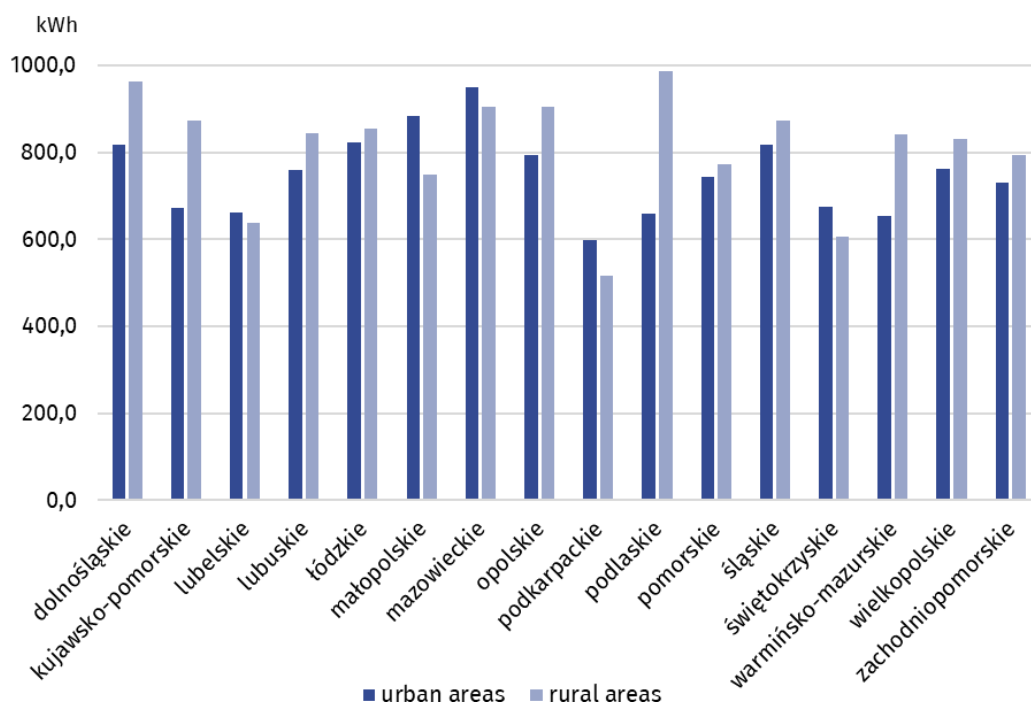
In 2022, compared to the previous year, consumption of electricity per consumer (household) in Poland decreased by 6.7% and amounted to 1,847.7 kWh, whereas in urban areas amounted to 1,649.1 kWh (decrease of 2.4%), and in rural areas - 2,242.8 kWh (decrease by 8.6%).

In 2022, household consumption of electricity amounted to 30,062.0 GWh

**Table 1. Consumers and household consumption of electricity**

Specification	2021	2020 = 100	2022	2021 = 100
Consumption of electricity in GWh (during the year)	31,647.1	100.4	30,062.0	95.0
urban areas	18,516.4	100.1	17,855.9	96.4
rural areas	13,130.7	100.7	12,206.1	93.0
Consumers of electricity in thousands (as of 31 December)	15,984	101.2	16,270	101.8
urban areas	10,961	103.8	10,823	98.7
rural areas	5,353	102.1	5,442	101.7
Consumption of electricity per consumer in kWh (during the year)	1,979.9	99.2	1,847.7	93.3
urban areas	1,689.3	96.4	1,649.1	97.6
rural areas	2,453.0	98.7	2,242.8	91.4
Consumption of electricity per capita in kWh (during the year)	829.3	100.9	794.7	95.8
urban areas	810.9	100.8	791.3	97.6
rural areas	856.6	100.9	799.7	93.4

**Chart 1. Household consumption of electricity per capita in 2022**



**Heat energy**

At the end of 2022, the length of the heat supply network in Poland amounted to 25,469.9 km, of which 96.0% was located in urban areas.

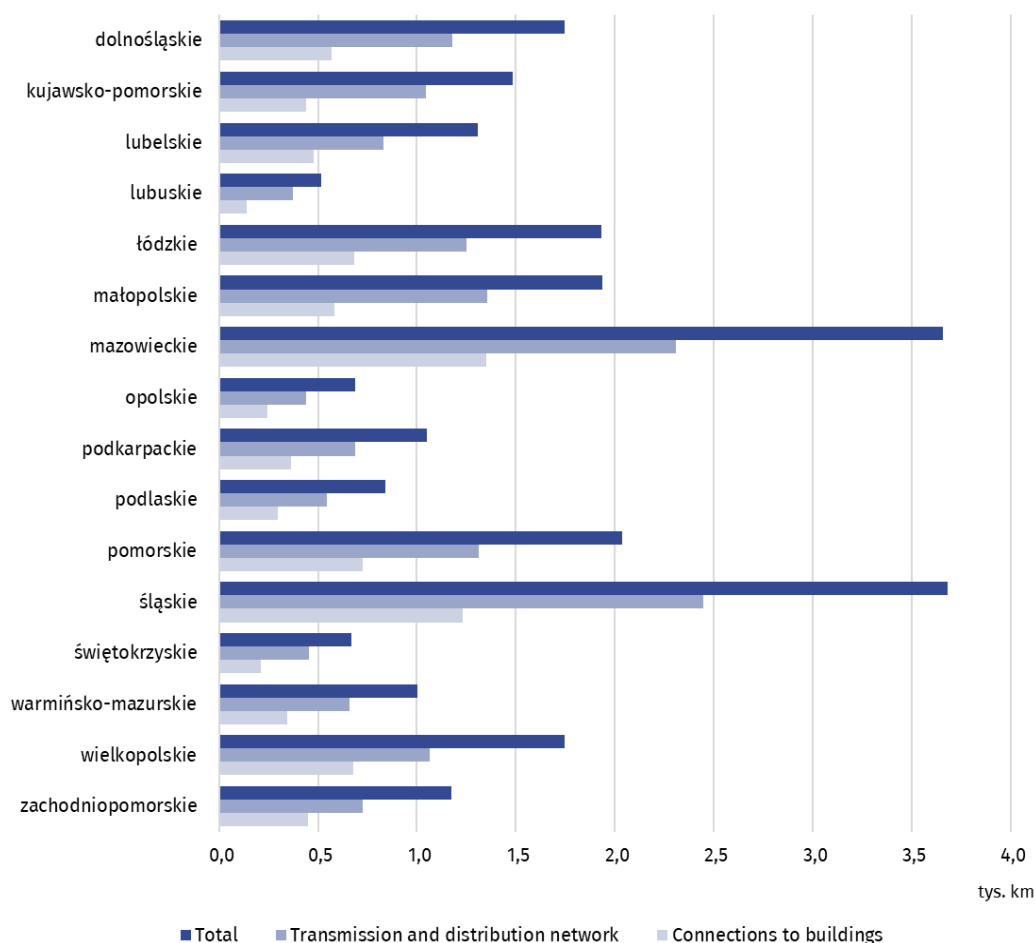
The highest density of heat supply network was observed in the following voivodships: Śląskie (19.9 km per 100 km<sup>2</sup>), followed by Małopolskie (8.9 km per 100 km<sup>2</sup>), Pomorskie (7.2 km per 100 km<sup>2</sup>), Łódzkie (6.9 km per 100 km<sup>2</sup>) and Mazowieckie (6.5 km per 100 km<sup>2</sup>), while the lowest density - in the following voivodships: Podlaskie, Lubuskie and Warmińsko-Mazurskie (2.7 km per 100 km<sup>2</sup>) and Zachodniopomorskie (3.2 km per 100 km<sup>2</sup>).

96% of the length of the heating network located in urban areas at the end of 2022

**Table 2. Heat supply system infrastructure and sale of heat energy**

Specification	2021	2020 = 100	2022	2021 = 100
Heat supply network (total) in km (as of 31 December)	25,238.7	99.7	25,469.9	100.9
urban areas	24,167.7	99.8	24,441.5	101.1
rural areas	1,071.0	97.3	1,028.4	96.0
Heat supply network (transmission and distribution) in km (as of 31 December)	16,524.8	99.7	16,679.3	100.9
urban areas	15,839.7	99.9	16,017.3	101.1
rural areas	685.1	96.3	662.0	96.6
Connections to buildings in km (as of 31 December)	8,713.9	99.6	8,790.6	100.9
urban areas	8,328.0	99.6	8,424.2	101.2
rural areas	385.9	99.1	366.4	94.9
Sale of heat energy in thousand TJ (during the year)	211.7	115.2	194.0	91.6
urban areas	208.7	115.3	191.3	91.7
rural areas	3.0	110.1	2.7	90.0
Sale of heat energy for residential buildings in thousand TJ (during the year)	166.5	114.6	151.7	91.1
urban areas	164.6	114.6	150.1	91.2
rural areas	1.9	109.0	1.6	85.0

**Chart 2. The length of heat supply network – as of 31.12.2022**



In 2022, 194.0 thousand TJ of heat energy was sold, of which 151.7 thousand TJ (i.e. 72.2%) for heating purposes in residential buildings. About 191.3 thousand TJ (98.6%) of heat energy was sold to inhabitants of urban areas, of which approximately 150.1 thousand TJ for heating purposes in residential buildings.

In 2022, in the structure of fuels used for production of heat energy for heating purposes, the largest share constituted solid fuels (i.e. 60.0%), followed by gaseous fuels (i.e. 37.0%), whereas the least heat energy for heating purposes was produced using oil fuels (i.e. 3.0%).

### Gas supply system

As of the end of 2022, gas supply network in Poland reached the length of 171.2 thousand km, the number of connections to buildings amounted to 3,398.8 thousand pcs. Compared to the previous year, the length of gas supply network increased by 5.4 thous. km (3.3%), whereas the number of connections to buildings - by 113.5 thous. pcs. (3.5%).

The household consumption of gas from gas supply system in Poland in 2022 compared to 2021 decreased by 5.1%, while the number of customers increased by 2.2%. In urban areas, gas consumption decreased by 4.6%, while the number of customers increased by 1.6%. In rural areas, gas consumption decreased by 6.2%, while the number of recipients increased by 4.9%.

In relation to 2021, households consumption of gas from gas supply system in decreased by 3,017.1 GWh and amounted to 6,458.4 kWh per customer, with 5,488.4 kWh per customer in urban areas and in rural areas 11,326 kWh per consumer.

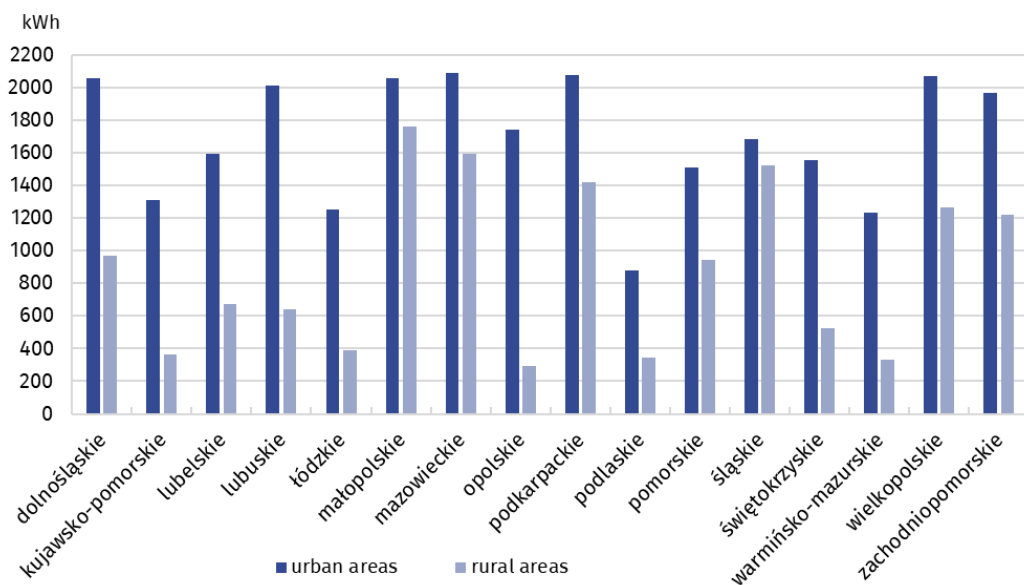
In 2022, about 151.7 thousand TJ of heat energy was sold for heating purposes in residential buildings, of which almost 99% to inhabitants of urban areas

As of the end of 2022, gas supply network in Poland reached the length of about 171.2 thousand km, by 3.3% more than a year before

**Table 3. Gas supply network, consumers, and consumption of gas from gas supply system in households**

Specification	2021	2020 = 100	2022	2021 = 100
Gas supply network in km (as of 31 December)	165,733	102.2	171,179	103.3
urban areas	68,749	102.2	70,909	103.1
rural areas	96,983	102.3	100,270	103.4
Connections leading to residential and non-residential buildings in thousand pcs (as of 31 December)	3,285.3	104.0	3,398.8	103.5
urban areas	1,909.3	103.2	1,966.1	103.0
rural areas	1,376.0	105.1	1,432.6	104.1
Consumers of gas from gas supply system in thousands (as of 31 December)	8,549	102.5	8,735.1	102.2
urban areas	7,166	101.7	7,283.8	101.6
rural areas	1,383	107.1	1,451.2	104.9
Consumption of gas from gas supply system in GWh (during the year)	59,431.5	118.2	56,414.4	94.9
urban areas	41,903.8	113.0	39,976.9	95.4
rural areas	17,527.7	132.5	16,437.5	93.8
Consumption of gas from gas supply system per capita in kWh (during the year)	1,564.4	118.8	1,491.4	95.3
urban areas	1,845.5	113.9	1,771.7	96.0
rural areas	1,146.8	132.7	1,077.0	93.9
Consumption of gas from gas supply system per consumer in kWh (during the year)	6,951.7	115.3	6,458.4	92.9
urban areas	5,847.6	111.2	5,488.4	93.9
rural areas	12,672.0	123.8	11,326.7	89.4

**Chart 3. Household consumption of gas from gas supply system per capita in 2022**



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**Related information**

[Energy management and gas supply system in Poland in 2021](#)

[Housing Economy and Municipal Infrastructure in 2021](#)

**Data available in databases**

[Local Data Base](#)

[Knowledge Databases Municipal and Dwelling Infrastructure](#)

**Terms used in official statistics**

[Energy consumption](#)

[Consumers of electric energy in households](#)

[Distribution heat network](#)

[Transmission heat network](#)

[Gas supply network](#)

[Gas supply connection](#)

[Consumer of gas from gas supply system](#)

[Consumption of gas in households](#)