

Energy Management and Gas Supply System in 2021

15.09.2022


0.4 %

An increase in the household consumption of electricity

In Poland in 2021 household consumption of electricity increased by 0.4 %, and the number of consumers by 1.2 %.

Electricity

In 2021, household consumption of electricity in Poland increased by 0.4 % compared to 2020 and amounted to 31,647.1 GWh, with simultaneous increase in the number of consumers (households) of 1.2 %.

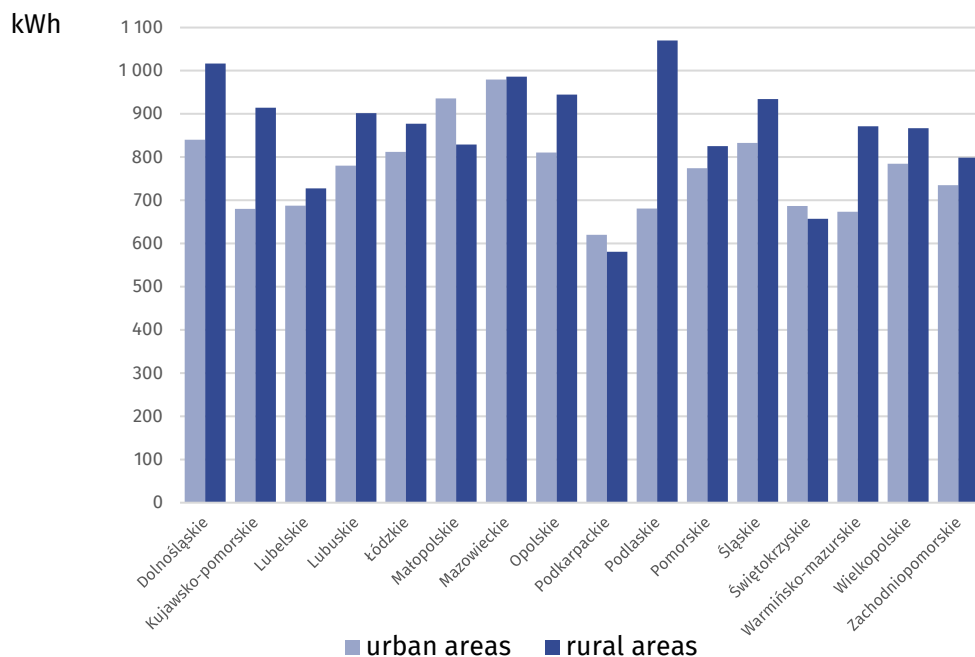
In 2021, compared to the previous year, consumption of electricity per consumer (household) in Poland decreased by 0.8 % and amounted to 1,979.9 kWh, whereas in urban areas amounted to 1,741.8 kWh (a decrease of 0.6 %), and in rural areas – 2,452.9 kWh (a decrease of 1.3 %).

Compared to 2020, household consumption of electricity increased by 0.4 %, and amounted to 31,647.1 GWh

Table 1. Consumers and household consumption of electricity

Specification	2020	2019 = 100	2021	2020 = 100
Consumption of electricity in GWh (during the year)	31,534.8	103.0	31,647.1	100.4
urban areas	18,499.0	103.1	18,516.4	100.1
rural areas	13,035.8	102.8	13,130.7	100.7
Consumers of electricity in thousands (as of 31 December)	15,799	101.4	15,984	101.2
urban areas	10,556	101.5	10,961	100.7
rural areas	5,243	101.1	5,353	102.1
Consumption of electricity per consumer in kWh (during the year)	1,996.0	101.6	1,979.9	99.2
urban areas	1,752.5	101.6	1,741.8	99.4
rural areas	2,486.2	101.7	2,452.9	98.7
Consumption of electricity per capita in kWh (during the year)	822.2	103.1	829.3	100.9
urban areas	804.3	103.4	811.0	100.8
rural areas	849.1	102.7	856.6	100.9

Chart 1. Household consumption of electricity per capita in 2021



Heat energy

As of the end of 2021, the length of heat supply network amounted to 25,238.7 km, of which 95.8 % was located in urban areas.

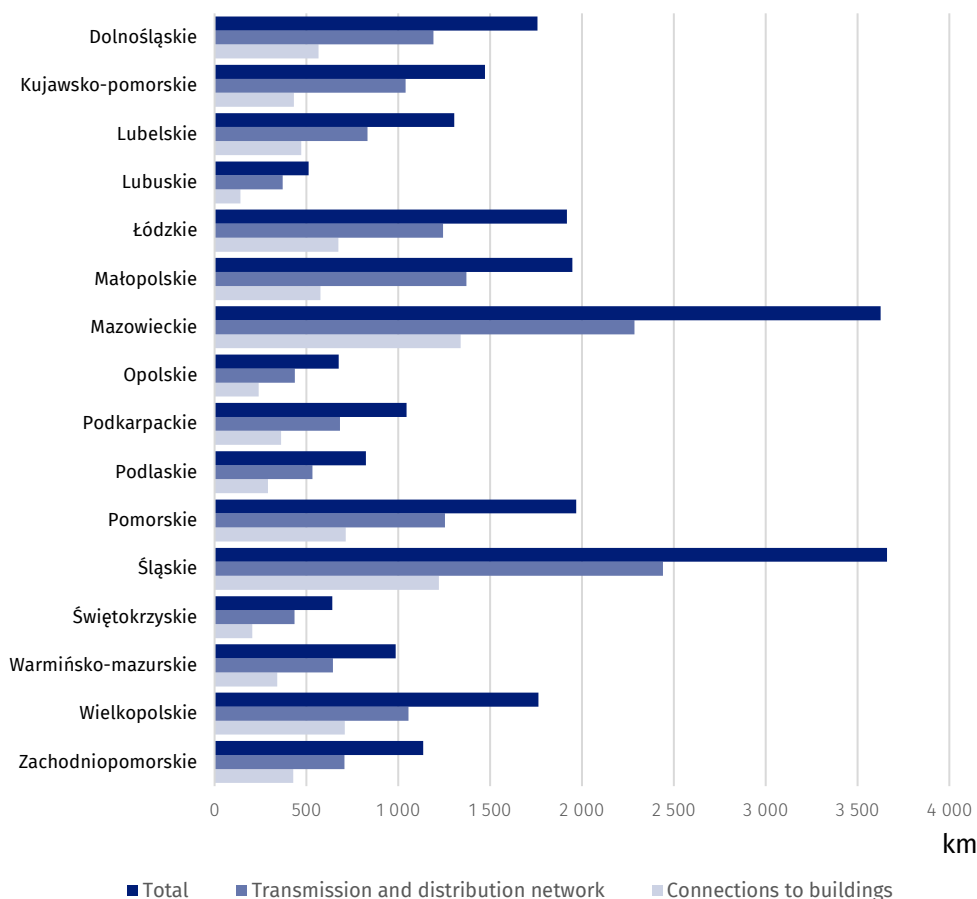
The highest density of heat supply network was observed in the areas of voivodships: Śląskie (19.8 km per 100 km²), Małopolskie (9.0 km per 100 km²), Pomorskie and Łódzkie (6.8 km per 100 km², each), and Mazowieckie (6.4 km per 100 km²), while the lowest – in voivodships: Podlaskie (2.6 km per 100 km²), Lubuskie and Warmińsko-mazurskie (2.7 km per 100 km², each), and Zachodniopomorskie (3.1 km per 100 km²).

As of the end of 2021, almost 96 % of the length of heat supply network was located in urban areas

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

Specification	2020	2019 = 100	2021	2020 = 100
Heat supply network (total) in km (as of 31 December)	25,325.8	100.3	25,238.7	99.7
urban areas	24,224.6	100.4	24,167.7	99.8
rural areas	1,101.2	97.3	1,071.0	97.3
Heat supply network (transmission and distribution) in km (as of 31 December)	16,573.4	101.2	16,524.8	99.7
urban areas	15,861.7	101.4	15,839.7	99.9
rural areas	711.7	97.2	685.1	96.3
Connections to buildings in km (as of 31 December)	8,752.4	98.7	8,713.9	99.6
urban areas	8,362.9	98.7	8,328.0	99.6
rural areas	389.5	97.4	385.9	99.1
Sale of heat energy in thousand TJ (during the year)	183.7	96.1	211.7	115.2
urban areas	181.0	96.1	208.7	115.3
rural areas	2.7	98.8	3.0	110.1
Sale of heat energy for residential buildings in thousand TJ (during the year)	145.3	97.8	166.5	114.6
urban areas	143.6	97.8	164.6	114.6
rural areas	1.7	98.3	1.9	109.0

Chart 2. The length of heat supply network – as of 31.12.2021



In 2021, about 211.7 thousand TJ of heat energy was sold, of which 166.5 thousand TJ (78.6 %) for heating purposes in residential buildings. About 208.7 thousand TJ (98.6 %) of heat energy was sold to inhabitants of urban areas, of which approximately 164.6 thousand TJ for heating purposes in residential buildings.

In 2021, in the structure of fuels used for production of heat energy for heating purposes the largest share constituted solid fuels (61.9 %), and gaseous fuels (36.1 %), whereas the least heat energy for heating purposes was produced using oil fuels (2.0 %).

Gas supply system

As of the end of 2021, gas supply network in Poland reached the length of 165.7 thousand km, the number of connections to buildings amounted to about 3,285 thousand pcs. Compared to the previous year the length of gas supply network increased by about 3.6 thousand km (2.2 %), whereas the number of connections to buildings by about 126 thousand pcs (4.0 %).

The household consumption of gas from gas supply system in Poland in 2021, compared to 2020, increased by 18.2 %, with a simultaneous increase in the number of consumers of 2.6 %. In urban areas there was a 13.0 % increase in gas consumption, together with a rise in the number of consumers of 1.8 %. In rural areas there was noted an increase in gas consumption – of 32.5 %, whereas the number of consumers increased by 7.2 %.

Compared to 2020, household consumption of gas from gas supply system increased by 9,138.2 GWh and amounted to 6,945.4 kWh per consumer; in urban areas it was 5,842.0 kWh per consumer, and in rural areas – 12,662.7 kWh per consumer.

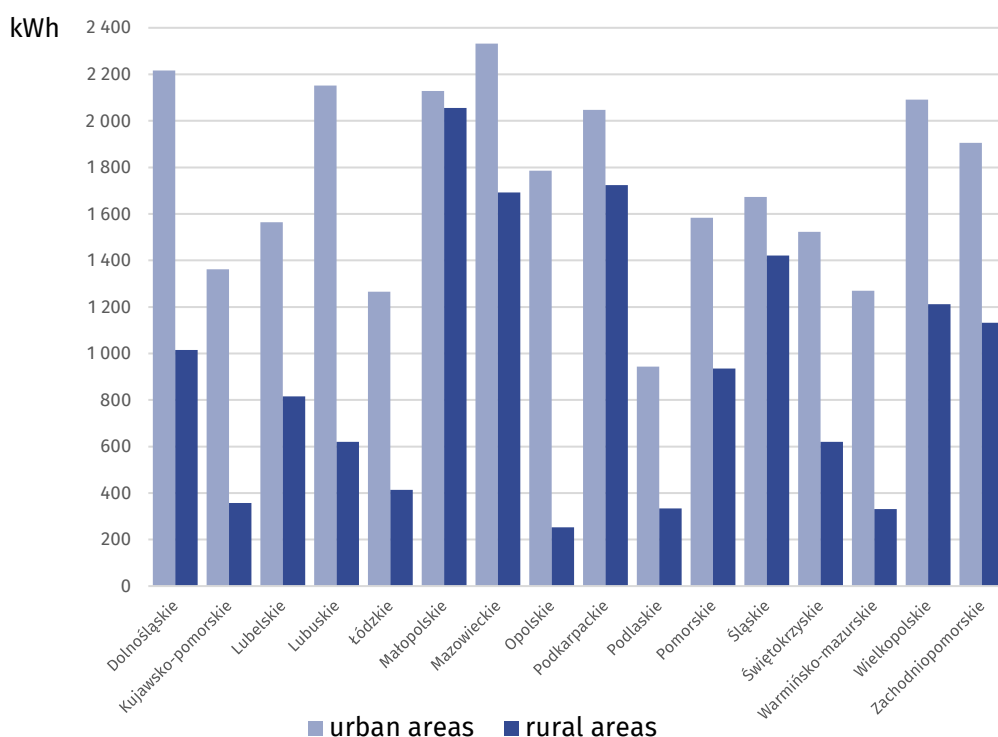
In 2021, about 166.5 thousand TJ of heat energy was sold for heating purposes in residential buildings, of which almost 99 % to inhabitants of urban areas

As of the end of 2021, gas supply network in Poland reached the length of about 165.7 thousand km, by 2.2 % more than a year before

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

Specification	2020	2019 = 100	2021	2020 = 100
Gas supply network in km (as of 31 December)	162,089	102.7	165,733	102.2
urban areas	67,244	102.6	68,749	102.2
rural areas	94,845	102.7	96,983	102.3
Connections leading to residential and non-residential buildings in thousand pcs (as of 31 December)	3,159.4	103.7	3,285.3	104.0
urban areas	1,850.4	103.2	1,909.3	103.2
rural areas	1,309.1	104.4	1,376.0	105.1
Consumers of gas from gas supply system in thousands (as of 31 December)	8,340	104.8	8,557	102.6
urban areas	7,048	103.7	7,173	101.8
rural areas	1,292	111.6	1,384	107.2
Consumption of gas from gas supply system in GWh (during the year)	50,293.3	105.1	59,431.5	118.2
urban areas	37,067.3	103.3	41,903.6	113.0
rural areas	13,226.0	110.6	17,527.9	132.5
Consumption of gas from gas supply system per capita in kWh (during the year)	1,311.3	105.2	1,557.3	118.8
urban areas	1,611.5	103.5	1,835.2	113.9
rural areas	861.5	110.5	1,143.5	132.7
Consumption of gas from gas supply system per consumer in kWh (during the year)	6,030.6	100.3	6,945.4	115.2
urban areas	5,259.4	99.6	5,842.0	111.1
rural areas	10,238.6	99.1	12,662.7	123.7

Chart 3. Household consumption of gas from gas supply system per capita in 2021



In case of quoting Statistics Poland data, please provide information: "Source of data: Statistics Poland", and in case of publishing calculations made on data published by Statistics Poland, please include the following disclaimer: "Own study based on figures from Statistics Poland".







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Related information

[Municipal Infrastructure in 2020](#)

[Housing Economy and Municipal Infrastructure in 2020](#)

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](#)