RES: according to the latest URE report, electricity production from microgeneration units in our country doubled last year

Prosumers and photovoltaics invariably prevail in the segment of power producers from micro RES units.

With the growing awareness about climate change among Poles and more proactive search for ways to curb electricity bills, consumers have become increasingly interested in producing energy from own green sources. Domestic installations produce power for own use while the surplus is exported to distribution networks. The growth of microgeneration, especially the prosumer segment, did not slow down during the pandemic. The latest report prepared by the Energy Regulatory Office providing aggregated information on electricity generated from RES microgeneration units (including those owned by prosumers) and supplied to the distribution grid in 2022[1] shows an over twofold increase (compared to 2021) in the volume of electricity supplied to the grid from microgeneration units.

At the end of 2022, there were more than 1.2 million microgeneration units connected to the electricity grid with a total installed capacity exceeding 9.3 GW, and with solar PV accounting for 99 per cent of this figure. In terms of the number of microgeneration units, the bulk of them are used by prosumers. Prosumer installations also account for 96 per cent of the total installed capacity of the microgeneration units. In 2022, the volume of electricity supplied to the distribution grid by microgeneration units reached nearly 5.8 TWh, i.e. was larger by 109 per cent than in 2021.

> *- The figures presented in our latest report clearly show that power generation from green microgeneration units has been growing at a tremendous rate for several years. The importance of such distributed generation sources in our country will continue to grow, especially in the context of energy transition and creation of a new energy market architecture which promotes local generation and consumption. However, the integration of such microgeneration capacity with the power system requires urgent adaptation of the grid infrastructure* - says Rafał Gawin, President of URE.

Fig. 1. Increase in the number of microgeneration units between 2018 and 2022, breakdown by prosumer and non-prosumer-owned units

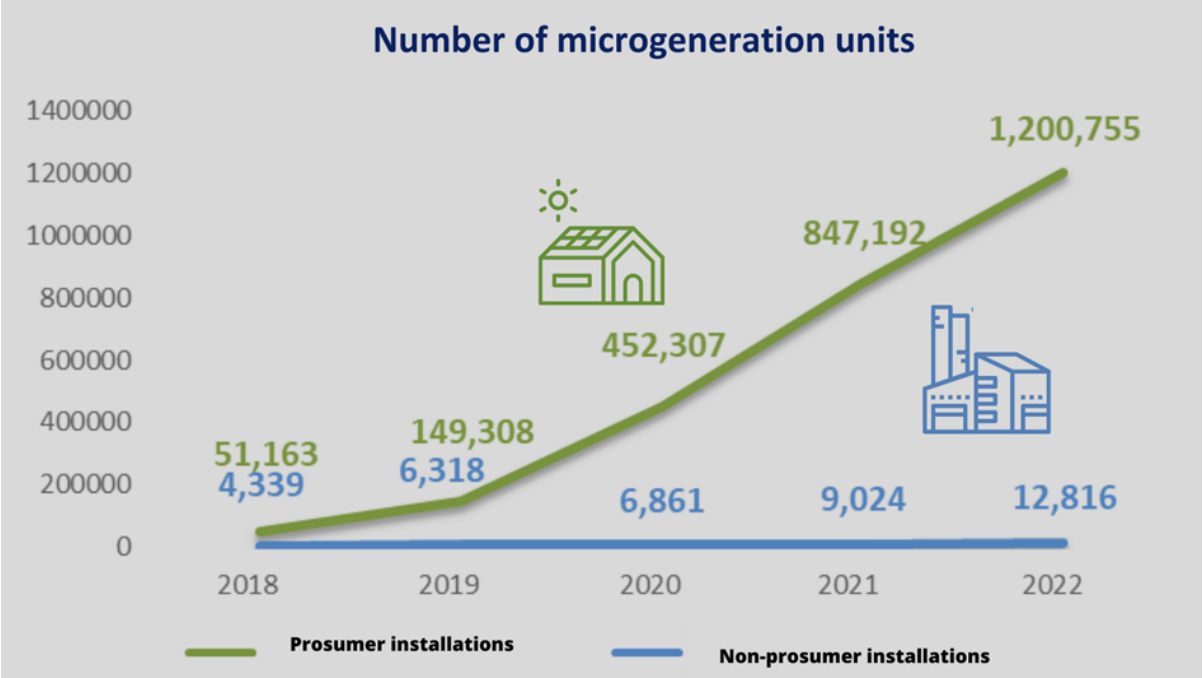
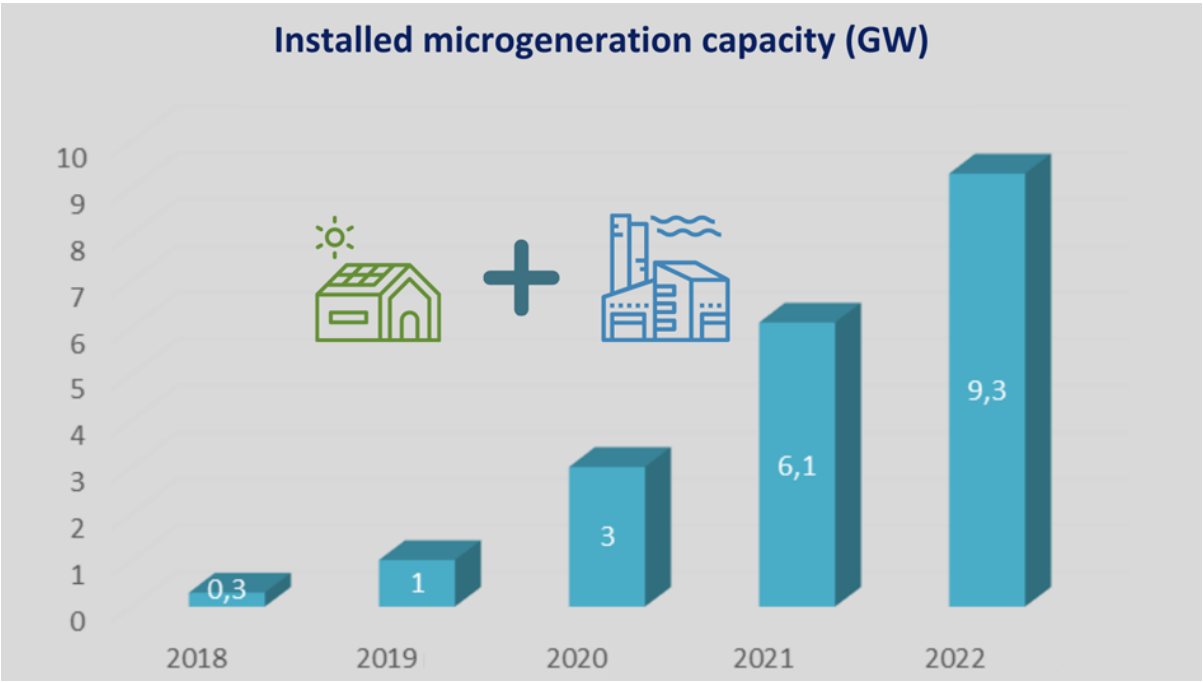


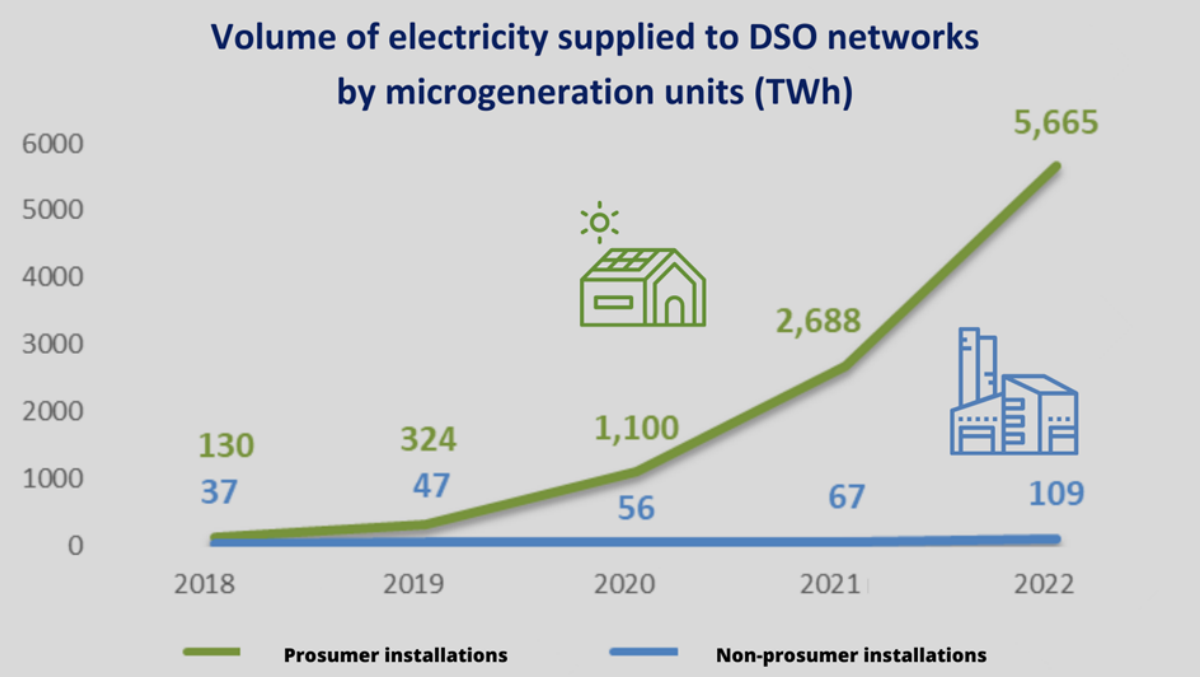
Fig. 2. Total increase in installed capacity in RES microgeneration units in the years 2018-2022 (in GW)



In 2019, the installed capacity of RES microgeneration units exceeded 1 GW. Since then, i.e. over the last four years, installed capacity has increased ninefold to 9.3 GW. Along with the growth in installed capacity, the volume of generated electricity is also going up. In 2022, micro power generators supplied nearly 5.8 TWh of electricity to distribution

networks. This is more than the double of the 2021 figure.

Fig. 3. Volume of electricity supplied into distribution networks by microgeneration units between 2018 and 2022, breakdown by prosumer and non-prosumer-owned units (TWh)



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- Microgeneration units – a category covering the smallest RES installations up to 50 kW. According to the legal definition, these are renewable energy sources with a total installed electrical capacity of up to 50 kW, connected to a power supply network with a rated voltage of less than 110 kV, or with cogeneration heat output of up to 150 kW where the total installed electrical capacity does not exceed 50 kW[2].
- Micro and small RES units benefit from preferences such as simplified formalities (e.g. easier connection to the grid, no need to obtain a licence, just an entry in the relevant register of generators operating small-scale units; exemption of small units from the costs of commercial balancing) or special support mechanisms for the sale of electricity (so-called obliged supplier designated in a given area, which is obliged to buy electricity from such a generator).
- In addition, favourable settlement terms in respect of the generated electricity have been put in place for prosumers. It is either the so-called discount system[3]or the net-billing system[4].

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[1] Report prepared in accordance with Article 6a(2)(1) of the Act on Renewable Energy Sources of 20

February 2015 (Dz.U.2020.261, as amended).

[2] Article 2(19) of the RES Act.

[3] For ‘old’ installations, i.e. those connected to the grid by the end of March 2022, it provides for preferential settlement terms in respect of electricity supplied to the grid by the prosumer and taken from the grid (when the prosumer’s facility does not produce electricity or does not cover its energy needs in full). A prosumer with a unit up to 10 kWp may take from the grid 0.8 kWh for each 1 kWh supplied to the grid.

[4] Applies to prosumers that connected their microgeneration units to the grid after 1 April 2022 or decided to switch to the new settlement model. The power surplus supplied to the grid to be compensated for at the average market price of electricity in the previous month (according to the RCEm index). The compensation for the electricity exported to the grid is transferred to an individual deposit account of the prosumer, used to offset the bills for electricity purchased from the grid.

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