

# Polish PV in 2021

According to Agencja Rynku Energii S.A., the total capacity of solar PV plants in Poland reached almost 4 GW at the end of December 2020. Once a black spot on the PV map of Europe, Poland ranked fourth in 2020 among EU countries for PV growth, after Germany, the Netherlands, and Spain. In 2020 alone, the country installed almost 2.7 GW of new PV. But there are grid connection headwinds in sight, writes Piotr Mrowiec from Rödl and Partner.

As in previous years, the development of Poland's solar market in 2020 was stimulated by two support systems for renewables. Firstly, support for small plants up to 50 kWp, and secondly, support in the form of feed-in tariffs (installations up to 500 kWp) and contracts for larger installations.

The small plants scheme sparked remarkable interest in investing in PV systems, especially among homeowners. The well received and uncomplicated support system is responsible for 75% to 80% of the new output. Simply speaking, the support system allows virtual storage of power within the grid. The producer can store the power surplus in the grid and use it within 12 months, with a 20% or 30% deduction, depending on the plant size. The model is simple: Residential PV installations are easy to connect to the grid, the support model can be combined with other domestic or EU subsidies, and electricity prices are going up, while PV plants are getting cheaper. Therefore, it seems that microgeneration is very likely to continue to play a major role in the growth of Polish solar in the future.

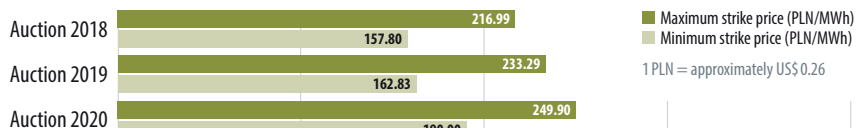
*“Microgeneration is very likely to continue playing a major role in the growth of Polish solar in the future”*

## Large-scale sector

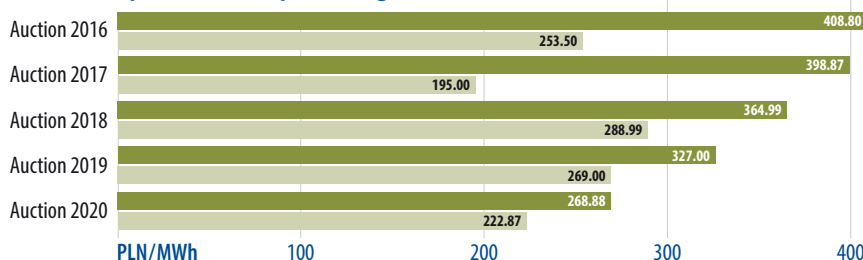
Foreign investors are more interested in large PV plants. Most ongoing, large-scale, free-standing PV projects joined energy auctions in 2020. In the auction for plants up to 1 MW, which were open to both solar PV and wind, only the former participated. Competition was stronger than in earlier auctions, and as a result more than half of the bids were rejected. At the same time, however, auction prices dropped significantly. According to data from the Energy Regulatory Office, the minimum price of the winning auction bids in 2020 was PLN 222.87 (\$60.10)/MWh, and the maximum was PLN 268.88 (\$72.50)/MWh.

In the context of significant drops in strike prices in the energy auctions held between 2016 and 2020, one interesting thing to notice is the exact opposite trend in sales prices of ready-to-build projects which have won the auctions. Average transaction prices for 1 MW plants are increasing considerably. The price per project which won the auction in 2016 and 2017 was €70-90 thousand, the price of a 2018 project ranged from €110-140 thousand, and the prices for winning projects in 2019 and 2020 hovered around €160

### Poland: price development of wind/solar plants larger than 1 MW



### Price development of solar plants larger than 1 MW





*The 65 MW Witnica Solar Farm in western Poland is set for completion in the first half of this year, and will power a nearby cement factory under a 10-year private power purchase agreement.*

thousand. Significantly, transaction prices per project are going up, even though auction prices are going down with each session, and rent per hectare of land has grown from about PLN 6,000–7,000 to more than PLN 10,000.

The situation in auctions for installations larger than 1 MW is completely different. Auction prices obtained have increased in each of the three sessions held between 2018 and 2020. Without the price pressure from wind projects, the maximum price in the auction for large wind and PV projects was last year less than in the 2019 auction.


### Market growth

Looking to 2021, the major stimulus behind market growth will continue to come from the auction support and the system of discounts for small plants. Regarding the auctions planned for 2021, we can expect a further decrease in auction prices for plants up to 1 MWp, but it seems that the decrease will not be as deep as in between the auctions of 2020 and 2019. The further price rise in the auction basket for large photovoltaic and wind farms (above 1 MW) is unlikely to continue. I believe that the growing number of bidders on auctions above 1 MW will put pressure on the bid prices, which will drop in comparison with 2020.

However, if we look at the low auction prices and the high electricity prices in

Poland, we are most likely to see the developing trend of large PV projects planned outside of any support system. We can make a cautious comparison to the German market, where such projects are successfully developed, since solar irradiation in Germany is practically identical to Poland.

In forecasting the development of the PV market in Poland, it is impossible to ignore a growing problem which PV developers are facing – namely, the (un)availability of connection capacities. This is not a new problem, nor one specific to Poland. However, it is impossible to ignore the fact that developers in 2020 were refused connection to the grid several times more often than in previous years.

It is worth pointing out the new trend – that is, the development of projects with an option to build (in the future) energy storage capacity alongside the installation – taking into account the possibility of applying for conditions for a lower connection power, because of the fact that the storage facility will allow stretching the feed-in of the generated energy over a longer time. We can already see that some developers of large-scale PV projects include the energy storage facilities in their applications for environmental decision, and later for the zoning permit. Additionally, they allow for the construction of an energy storage facilities on leased property. 

*Piotr Mrowiec*

### About the author

*Piotr Mrowiec is an associate partner at Rödl & Partner, and is the head of the office in Gdansk and head of the renewable energy team. As a specialist in renewable energy sector regulations, he advises numerous clients and conducts legal due diligence for wind and PV projects. Mrowiec has been involved in studies for dozens of wind and solar projects, with a total capacity of several hundred megawatts.*

