

Grid access threatens Poland's PV prosperity

Solar dominated the Polish renewable energy sector in 2021. PV was responsible for the largest increase in nominal capacity last year, but until recently, it was only a niche market in the country. Rising electricity prices were the main contributor to Poland's record year for PV, as they ensured profitability for solar installations, in combination with stable, flexible support via an energy auction system. Piotr Mrowiec, associate partner at Rödl & Partner, offers an update on PV in Poland.

Poland held two rounds of energy auctions in 2021 for the first time since the auction system began operating in December 2016. The energy auctions for photovoltaics, which each time compete with wind power in separate baskets for installations up to 1MW and above 1MW, were held in June and December.

As the Energy Regulatory Office (URE) indicated with respect to the December auction, only 14 out of 375 total winning bids were for technologies other than solar. The auction for PV and wind installations not exceeding 1MW (designated as AZ/11/2021) attracted the most interest. In all, 182 generators attended the auction, contributing 401 bids. All bids were submitted by entrepreneurs investing in photovoltaic installations.

The reference price in this basket was PLN 340 (\$85.97)/MWh. The minimum price at which energy was sold was PLN 219 (\$55.03)/MWh. The maximum price at which energy was sold was PLN 278.9 (\$70.11)/MWh. The auction facilitated around 300MW of solar capacity.

The second auction, designated for PV and wind installations larger than 1MW (marked as AZ/12/2021) was participated in by 66 producers, who placed 89 bids in total. The reference price in that basket was PLN 320 (\$80.49)/MWh for solar power plants, but the average price was PLN 227.79 (\$57.27)/MWh. The latter auction could result in the development of a total of 570MW of new solar projects across Poland.

Going back further, Poland held an even larger energy auction in June 2021. According to the URE, the outcome of the auction for wind and solar above 1MW could lead to the construction of more than 1.2GW of new PV installations. The average price in this basket was PLN 229.2 (\$57.65)/MWh and was slightly higher than in 2020. The auction for installations up to 1MW, also completely dominated by PV, attracted a lot of interest. It is worth noting that the obtained auction prices in this basket were approximately 10% lower than in 2020.

PPA proliferation

Comparing these auction prices with energy market prices, one might ask whether there is still any sense in taking part in energy auctions. In fact, some investors did not take part, deciding instead to build their PV installations and secure financing by concluding PPAs for periods of seven to 10 years, where the energy price is usually significantly higher than the auction prices – more than PLN 300 (\$75.45)/MWh. Moreover, some investors that acquire PV projects with winning auctions decide to forego support, agreeing to forfeit their deposits of PLN 60 (\$15.10) per kilowatt of nominal capacity – which, apart from the exclusion from participation in auctions by the company owning the PV project, is the only consequence.

In the Polish auction system, the participant has free choice as to the amount of energy it will sell within the framework of the auction – both during the entire period of support and in individual years. It has therefore become popular to offer symbolic amounts of energy subject to the differential contract regime – for example, 1 MWh during the first four to five years – and to sell the rest on the market or under a PPA. Full entry into the system will then occur after a period of four or five years, where the offered auction price will be indexed for inflation at the current level in Poland, which is about 8% per year. This method allows bidders

This 70MW solar project – built at a former lignite mine – was connected to Poland's grid in October.



Photo: Esoleo

to take advantage of high market prices of energy applicable at present and in the foreseeable time horizon, with simultaneous protection in the form of auction support in the longer time frame.

Legislative changes

Among a number of changes made last year to the law concerning the PV industry, one is particularly worth a closer look. A change was introduced in the mechanism for settling the difference between the auction price and the average market price of energy sales in a situation where the auction price exceeds the market price – the so-called “positive balance.”

Previously, the difference could not be offset against the future “negative balance” (that is, the difference between the higher auction price and the lower market price of energy), so the surplus was to be returned after the 15-year support period. With the new change, the “positive balance” will be settled in three-year intervals. The change will apply not only to installations that participated in auctions held after the amendment went into force, but also to installations already covered by auction support, with some exceptions due to intertemporal provisions. It must be stressed that for the majority of photovoltaic installations, the amendment will not have a significant impact, due to the fact that their construction was financed by bank loans. This generally meant that the amount corresponding to the “positive balance” would be deposited each time in a special bank account, where these funds were blocked.

Development forecast


The dominance of projects of up to 1MW in size, the popularity of which arose solely from the adopted division into capacity baskets in the auction system, is slowly coming to an end. Due to the clear trend of abandoning the support system – and also due to small price differences between “large installations” and installations up to 1MW – it is more beneficial to develop larger installations, as they are cheaper to build due to economies of scale. This trend will deepen in 2022. In Poland, however, it will be increasingly difficult to achieve the nominal capacity increases of previous years, despite the fact that a record number of new projects are currently in development and several large PV projects are expected to be connected this year.



The Zagórze wind farm in Poland is an example of how the country is now exploring shared grid connections for solar and wind projects as a solution to the lack of connection capacity for PV installations.

The key problem is the lack of available grid connection capacity. This is particularly acute in the case of the development of large projects, which must apply for connection to the high-voltage grid, due to the reservation of power for offshore wind farms to be built in the future.

“The dominance of projects of up to 1MW in size ... is slowly coming to an end”

Plans for significant grid expansion are in place to remedy this. It has also been suggested that financial support should be shifted from supporting generation sources, which are, in fact, perfectly capable of coping with market conditions, to increasing connection capacities. Another solution that requires legislative changes is the idea of so-called “cable pooling,” which in the case of Poland would mean PV installations sharing existing connections already in use by wind farms. Due to the completely different generation profiles of these two sources, they are compatible most of the time, which means that they could be combined without major capacity limitations.  *Piotr Mrowiec*

About the author



Piotr Mrowiec is an associate partner at Rödl & Partner, and is the head of the office in Gdansk and the head of the renewables 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.