

Wind farms in Serbia - a billion euro business

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Wind farm projects

Serbia got its first 9.9 MW windfarm, in February 2016 in the vicinity of Kula. The planned annual generation of three Vestas wind turbines is 24 GWh, while the value of the Fintel Energija's investment amounted to EUR 15 million.

Among the projects of this company is the La Piccopina wind farm, with the capacity of 6,6 MW, located in the vicinity of Vrsac, commissioned in July 2016. The annual generation is 15.5 GWh, while the investment value was EUR 10 million.

In June 2017, Fintel Energija commissioned its largest wind farm so far, Kosava, also in the vicinity of Vrsac, with the capacity of 69 MW, and an annual generation of 200 GWh. EUR 120 million was invested in the construction.

In addition, Fintel has several projects in different development stages - Kosava, Phase II, 79.8 MW, followed by Kula 2, Kosava 2, Ram, Danube 1 and Danube 3, with total installed capacity of 9.9 MW. The biggest future project of the company is the Torak wind farm, in the municipality of Zitiste, with the capacity of 138 MW, and an annual generation of 401.7 GWh.

After wind farms in Kula and Vrsac, October 2017, Serbia received the Malibunar wind farm, with the capacity of 8 MW, in Alibunar. This was an investment of a Belgian company Elicio, worth EUR 14 million, while its expected generation is 15 GWh per year.

At the same time, a new 42 MW wind farm, Alibunar, was built, worth EUR 80 million, which was commissioned in September 2018.

Kovacica wind farm, 104.5 MW, by the Israeli company Enlight Renewable Energy, started its trial operation in January 2019. The investment value is EUR 89 million.

The largest wind farm in Serbia, Cibuk, 158 MW, built in Dolovo by Tesla Wind, should be completed in the first half of 2019. The investment value is EUR 300 million.

In addition, MET Renewables and NIS, majority-owned by Russian Gazprom, have commenced joint activities on the Plandiste wind farm project in Serbia.

This will be the first wind farm for both partners, as well as the first renewable energy investment of the Swiss MET Group outside the European Union. A 102 MW wind farm will consist of 34 wind turbines and be built in Plandiste municipality in Serbia. NIS has previously announced that the project is worth around EUR 160 million.

Construction is planned for 2019. It is therefore expected that the wind farm would be fully

operational in 2021.

When these data are added up, it is clear that in the next three years, 186 wind turbines should be built in Banat, with an investment value of close to one billion euros.

Furthermore, Elektroprivreda Srbije has received an energy permit for the wind farm in Kostolac, with the capacity of 66 MW, and it is expected that the construction will start in the third quarter of 2019. This is an investment at the level of EUR 97 million, out of which EUR 80 million is secured from a loan extended by the German Development Bank - KfW, while the rest are grant funds. Generation should commence in 2020.

Feed-in tariffs

In Serbia, by late 2018, an additional 200 MW of wind energy was connected to the grid, and another 200 MW is expected by late 2019, which will complete the target of 500 MW of wind energy subsidized during the guaranteed period of 12 years.

At the same time, thanks to these investments, the country will significantly approach the goal of a 27% share of renewable energy in total consumption by 2020. The largest share in the new green capacities is precisely that of the wind power plants.

Namely, Serbia has undertaken to increase the share of renewable energy in total final consumption to 27% by 2020, compared to 21.9% in 2009. In 2014, according to EUROSTAT, Serbia had a share of renewable energy of 23.1%.

The Energy Law sets the main framework for renewable resources and partially transposes the EU directive on the promotion of the use of energy from renewable sources, including provisions related to the transport sector (the 10% target for renewable energy in the transport sector).

The subsidy for electricity generation in wind farms, as well as in other RES power plants, is secured by acquiring the status of a privileged producer.

In June 2016, the Serbian Government adopted three regulations on renewable energy sources. The Regulation on privileged power producers prescribes the conditions and procedures for obtaining the status of a privileged producer. The Regulation on incentive measures for the production of electricity and heat from renewable sources determines the level of feed-in tariffs. The third regulation is the Regulation establishing standard power purchase agreement models.

The transmission and distribution networks connection pricing methodology entered into force in 2015.

Incentives to renewable energy producers are paid in the form of a feed-in tariff, i.e. guaranteed purchase prices, which is a model applied by most European countries. It envisages long-term investments in generation facilities, with the payment of a premium to encourage RES generation.

The wind energy tariff is 9.2 Euro per kilowatt-hour. Electricity from privileged power producers is purchased by a guaranteed supplier, EPS Supply.

Feed-in tariffs are subsidized by all electricity consumers through their monthly bills. This means that the money for the purchase of electricity from these producers is secured by the end customers, by paying the fee that is specifically indicated on and paid with the monthly electricity bill. The level of the said fee is annually established on the basis of the Government Regulation.

This fee in 2019 remained at the same level of the previous years and amounted to 0.093 dinars per kilowatt-hour.

After acquiring the status of a privileged power producer, according to the Energy Law, the electricity producer is entitled to sign a contract for the purchase of the total amount of electricity generated (popular PPA - Power Purchase Agreement) under a privileged price with a guaranteed supplier. The contract also covers the period of trial operation of the power plant.

Market balancing

One of the biggest problems with wind energy, in addition to the high price compared to conventional energy sources, is the instability and unpredictability of generation, which is why it is necessary to provide back-up capacities to facilitate uninterrupted power system operation. The volatile capacity of the wind power plant during operation requires efforts and incurs power system balancing costs.

The guaranteed supplier, on the basis of a power purchase agreement, also assumes balancing responsibility. Balancing responsibility is an obligation of the market participants, ensuring the balance among the generation, consumption and agreed sales of electricity.

This is precisely the problem in the so-called balancing electricity market, i.e. the part regulating electricity off-take, fully borne by EPS. For example, party producing electricity from the wind does not need to announce to EPS how much green kilowatts it will deliver in the next few days, thus allowing this public company to plan its generation.

This means that all electricity produced from the wind must be purchased at a double price of about 92 euros per megawatt and to stop or reduce (or increase if necessary) electricity generation from coal or water, whose exchange price is some 48 euros.

An additional problem is that even in Europe balancing energy exchange has not been developed.

As announced by relevant authorities, it is envisaged that in the future, the balancing will go to the producer's side.

Namely, privileged power producers do not pay balancing costs during the feed-in tariff period, while after 12 years they will be obliged to behave like all other market participants,

meaning that they will have to pay balancing costs or purchase the missing quantities by themselves on the market.