



At the beginning of December last year Serbian parliament adopted the Strategy of energy development of the Republic of Serbia until 2025, which is supposed to trace the "long term desired way of energy development" of Serbia.

The goal is, as stated, a reliable, safe, efficient and quality energy supply with sustainable development of energy sector. Also while providing competitiveness and customer protection, it is desired to have a larger share of energy from renewable energy sources, as well as better environment protection.

As strategic priorities of energy development, this document lists providing energy safety, energy market development and altogether transition to sustainable energy. It stresses the significance of renewable energy sources on this transition road.

Renewable energy sources potential of the Republic of Serbia is significant and it is estimated to 5.65 million tons of oil equivalent per year. Out of this quantity 60% is biomass, while available technical hydro potential participates with 30% in the total potential of RES. Other renewable energy sources – wind, solar energy and geothermal water – carry a significantly smaller potential and they are almost completely unutilized.

So, even though Serbia is in the zone of favorable geothermal potentials and resources, using geothermal energy for heating and other energy purposes is still in the initial phase and very modest compared to the potential and resources.

The total production of thermal energy which could be obtained by utilizing all existing sources of thermal water is around 180 thousand tons of oil equivalent as it is estimated in the Energy strategy of Serbia, where it also says that the current utilization of those capacities is only 5 thousand tons.

Serbia gets almost a fifth of energy from RES and ambitious National action plan for RES foresees that in 2020 the share of energy coming from renewable energy sources sould be 27% in gross final consumption of energy. In order for that to be possible, a more serious approach to energy coming from the Sun and wind is necessary, since their share in the energy balance is almost non existent.

Even though Strategy states that the number of sun radiation hours is much bigger here than in many other European countries, and it is 1500 and 2200 hours per year, and potential to convert this energy into thermal energy is 0.194 million ten per year, the reality is that besides numerous announcements about "largest solar power plants" just waiting to appear in Serbia, there is still not a single plant using solar power.

Based on currently available capacities of electric energy system the maximum technically usable capacity of solar power plants is 450MW, or 540 GWh per year, and all this capacity is waiting for some future investors.



Generating of electricity from the wind, just like the Sun, is highly dependent from weather and location factors. According to the Strategy, wind energy in Serbia can be used in the area where Košava blows, south Banat, east Serbia, east Kopaonik, Zlatibor and Pešter and mountain locations above 800 meters.

The capacity of wind farms that Serbia can count on is 500 MW and with this integrated capacity we can rely on their maximum technically usable potential of 1200 GWh per year. Yet out of those 500 MW that are available to investors, and for which the state is willing to provide feed in tariffs only one wind farm is operating. In mid November Italian-Serbian Company MK Fintel Wind opened up the first wind farm in Serbia near Kula. Three wind turbines, with capacity of 9.9 MW should produce around 27 million KWh "green energy" for around 8000 Serbian households.

This company is one of the important "players" in the Serbian market of wind energy, and it announced that it would soon open two new wind farms – in Vršac and near Veliko Gradište. Recently Tiziano Giovanetti, executive director of the Company said for eKapija that there is still a lot of bureaucracy and administration in Serbia which makes it long to construct and open up a wind farm.

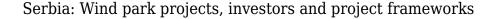
-Time and procedure of obtaining all necessary licenses to build a wind farm have to be simplified if we want to be competitive compared to the states in the region when it comes to wind energy – he said and added that beside the legal regulations, incentives are also important to provide the construction of a bigger number of renewable energy sources capacities.

The announcement of the minister of mining and energy Aleksandar Antić that we are soon expecting a set of three regulations that will define the new model of the contract on the purchase of electric power from renewable sources, which will bring more security to investors ready to invest in wind farms and other renewable sources is proof that Serbian government thinks in this way

According to current regulations the price of electricity coming from wind is 9.2 eurocent for kilowatt hour while the state is obliged to buy it from investors in the next 12 years. The list of those that showed interest to build wind farms in Serbia is pretty long, and it contains some names very interesting to the general public.

For example Elektroprivreda Srbije EPS plans to build a wind farm in Kostolac with integrated capacity of 50 MW and it has already opened a tender for making the feasibility study.

Another well known energy company Naftna industrija Srbije NIS plans to build its own wind turbines. We are talking about the wind farm Plandište, with 34 wind power





generators with integrated capacity of 102 MW. NIS and partners intend to invest 160 million euro.

According to the media the American company General Electric is also interested in the construction of wind farms in Serbia. In this company the value of the investments into the capacities of 500 MW in Dolovo and Kovačica are estimated at 1 billion euro.

It is still not clear what will happen with one of the largest projects announced in Serbia in this area. A few years ago the Company Continental Wind Serbia initiated the idea of the construction of the wind farm Čibuk 1 near Kovin, which should be an investment of hundreds of million euro. Still that company had a lot of problems to obtain documentation for this project so this issue turned into a serious political affair

Austrian Energic is negotiating a construction of wind farm and biomass heating plant in Negotin while the French IEL OIE Balkan Renewable Energy announced the construction of a wind farm in Bašaid near Kikinda with integrated capacity of 50 MW and value of 70 million euro. The Swiss company VP Energy Systems announced the construction of a wind farm on Vrška Čuka near Zaječar with integrated capacity of 35.45 MW and value of 100 million euro.

The construction of Wind farm Kovačica worth 350 million euro is another plan presented to the general public. The investor is the Belgrade branch of the Belgian company Electrawinds K-Wind. The company Webury Bela Anta showed interest for the location Bela Anta in Dolovo near Pančevo.

Of course that is not all. There are more investors both serious and less serious, but what still lacks is an adequate reaction to turn billions of euro and hundreds of MW that have existed for years into reality.

Wind energy could be a solution to the problem of supplying Serbia with electric power during winter months. With wind farms having integrated capacity of 500 MW there would be no need to import electricity in that period when it is most expensive, and win farms are at their highest production rate.