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АНАЛИЗ ВОЗМОЖНОСТИ ИСПОЛЬЗОВАНИЯ СОЛНЕЧНЫХ  
БАТАРЕЙ В БЕЛОРУССКО-РОССИЙСКОМ УНИВЕРСИТЕТЕ

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In my work we take solar energy as alternative energy obtained from solar panels and consider the problem of energy supply of Belarusian-Russian University and, consequently, means of financing and developing an action plan for energy efficiency.

To solve the problem it is necessary: a) to identify participants, reveal their desires and the degree of influence; b) to consider the experience of other organizations in the field of alternative energy sources; c) to analyze the possibility of installing solar panels on the roof of the BRU.

The territory of our country is located between the 56<sup>th</sup> and the 51<sup>st</sup> degrees of north latitude, which determines the angle of sunlight and the length of a sun day. These factors influence the amount of incoming solar radiation. The average duration of sunshine constitutes 1730–1950 hours per year, increasing to the southeast. May, June and July together account for about 48 % of the annual arrival of the total solar radiation.

The benefits of exploiting solar energy include the following: a) photovoltaic solar designs have no moving parts, so they do not require constant monitoring and maintenance; b) lifespan may reach 100 years with a slight decrease of performance (this may affect aging sealing materials); c) modern designs effectively perceive both direct and scattered (diffuse) radiation.

In Mogilev alternative energy was first applied in Technopark. The project is called ‘The Solar Roof of Technopark’. The development of the project was possible because Technopark owns a building, due to the convenient location of the building and compliance with the company’s profile.

The cost of the installation on the roof of Technopark was 7,500 euro. The Payback period is 5.7 years, after that the solar panel structure will start to bring profit.

Thus, today there are no objective obstacles for the development of solar energy in Belarus. Projects in this area promise a quick return on investment, are reliable in terms of earning revenues and require little maintenance.

Having analyzed the factors we conclude that it might be effective to use solar panels to perform activities needed for energy conservation. It is necessary to motivate administration of the University to start the process of energy conservation and use solar panels on the roof of one of the buildings of the Belarusian-Russian University.