

## Generation of Renewable Energy Through Photovoltaic Panels, Albania Photovoltaic Capacity

**Authors :** Dylber Qema

**Abstract :** Driven by recent developments in technology and the growing concern about the sustainability and environmental impact of conventional fuel use, the possibility of producing clean and sustainable energy in significant quantities from renewable energy sources has sparked interest all over the world. Solar energy is one of the sources for the generation of electricity, with no emissions or environmental pollution. The electricity produced by photovoltaics can supply a home or business and can even be sold or exchanged with the grid operator. A very positive effect of using photovoltaic modules is that they do not produce greenhouse gases and do not produce chemical waste, unlike all other forms of energy production. Photovoltaics are becoming one of the largest investments in the field of renewable generating units. Improving the reliability of the electric power system is one of the most important impacts of the installation of photovoltaics (PV). Renewable energy sources are so large that they can meet the energy demands of the whole world, thus enabling sustainable supply as well as reducing local and global atmospheric emissions. Albania is rated by experts as one of the most favorable countries in Europe for the production of electricity from solar panels. But the country currently produces about 1% of its energy from the sun, while the rest of the needs are met by hydropower plants and imports. Albania has very good characteristics in terms of solar radiation (about 1300–1400 kW/m<sup>2</sup>). Solar energy has great potential and is a permanent source of energy with greater economic efficiency. Photovoltaic energy is also seen as an alternative, as long periods of drought in Albania have produced crises and high costs for securing energy in the foreign market.

**Keywords :** capacity, ministry of tourism and environment, obstacles, photovoltaic energy, sustainable

**Conference Title :** ICECSE 2024 : International Conference on Electrical, Computer and Systems Engineering

**Conference Location :** London, United Kingdom

**Conference Dates :** April 11-12, 2024