

## **Sizing of photovoltaic system (state of an industry unit)**

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### **Abstract**

Solar photovoltaic system or solar power system is one of renewable energy system which uses PV modules to convert sunlight into electricity. The electricity generated can be either stored or used directly, fed back into grid line or combined with one or more other electricity generators or more renewable energy source. Solar PV system is very reliable and clean source of electricity that can suit a wide range of applications such as residence, industry, agriculture, livestock, etc.

Investing in a solar PV system is a smart solution for an industry installations. The latest solar panels and photovoltaic (PV) systems are easy to install, maintain, and operate, with long-term performance and energy savings.

Solar PV system includes different components that should be selected according to your system type, site location and applications. The major components for solar PV system are solar charge controller, inverter, battery bank, auxiliary energy sources and loads (appliances).

The present paper aims to sizing PV systems in Algeria .This paper also gives a brief introduction of different technologies PV used. Followed by modelisation method for PV system. The obtained results are for an industry unit.

### **Keywords**

Photovoltaic system, sizing, modelisation, technologies PV and industry unit.

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