

Mobile autonomous solar power plant based on a car trailer comprises: solar panels for converting solar radiation into electrical energy, arranged on support structures of the trailer, electrical energy generator driven by an internal combustion engine, and accumulator, connected to an inverter mounted in a single housing with a controller. Wherein the solar panels are arranged vertically in a transport position; the trailer is additionally equipped with a protective covering in the form of an awning, support structures with adjustment of an inclination angle of the solar panels, a part of which is attached to a side of the trailer, water tank with filters for purification of the water, electrolyzer with compressors, storage tanks for hydrogen and oxygen, as well as a set of hydrogen fuel cells, DC-DC converters, and system for temperature control and heating of the accumulator during a cold season.