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PROPOSAL TO GENERATE SOLAR ENERGY WITH A SPACE SATELLITE IN GEOSTATIONARY ORBIT OVER SOUTHERN PERU

Abstract

Energy insufficiency due to the use of fossil fuels and the increasing carbon footprint represent urgent challenges we face today.To address these problems, solutions have been sought through sustainable resources. Solar panels, for example, have emerged as a good option, although their effectiveness is directly linked to the availability of sunlight. With the aim of optimizing the use of solar panels, the alternative of Solar Power Space Satellites (SBSP) has been explored. These satellites, located in geostationary orbit over the southern region of Peru, have a notable photovoltaic generation capacity. Through wireless energy transmission, either through microwaves or laser, it is possible to obtain clean energy 24 hours a day. In addition, the installation of land infrastructure fot the storage and distribution of this energy is contemplated, which will contribute to reducing the carbon footprint and promote economic and industrial development in this vital area in the south of the country. SBSPs represent a promising technology for sustainable full-time power generation. Wireless transmission is shown to be an efficient and environmentally friendly alternative. The implementation of this technology not only addresses the current energy shortfall, but also anticipates future challenges in this field.