

Abstract Details

Publishing Date: July 13, 2019

Title: Implementation of Space based Solar Power

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Abstract: In outer space there is an uninterrupted availability of huge amount of solar energy in the form of light and heat. So the use of satellites primarily aimed at collecting the solar energy and beam it back to the earth is being considered. In geosynchronous orbit, i.e. 36,000 km (22,369 miles), a Solar Power Satellite (SPS) would be able to face the sun over 99% of the time. No need for costly storage devices for when the sun is not in view. Only a few days at spring and fall equinox would the satellite be in shadow. Unused heat is radiated back into the space. Power can be beamed to the location where it is needed, need not have to invest in as large as a grid.

Keywords: Solar Power, Geosynchronous Orbit, Storage Devices, Energy Consumption.