

IAF SPACE POWER SYMPOSIUM (C3)
Solar Power Satellite (1)

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IAA DECADAL ASSESSMENT OF SPACE SOLAR POWER: A PROGRESS REPORT

Abstract

Space solar power (SSP), first seriously proposed in 1968 by Dr. Peter Glaser is the concept of harvesting sunlight in space and delivering it wirelessly to receivers on Earth. During 2008-2011, the International Academy of Astronautics (IAA) conducted the First International Assessment of Space Solar Power, a study that was published following successful peer review and has since become a standard reference. Now, the Academy is conducting a decadal update of this first-of-a-kind international study during 2018-2022. (Note: the study was originally planned to conclude in 2021, but has been delayed due to the pandemic.) Key topics being examined by this study include: (1) changes in critical infrastructure since 2011; (2) advances in key technologies; (3) comparative assessment of various systems concepts that have been put forward; and, (4) emerging changes in the global market for new energy sources (including both energy for Earth and energy for space applications).

The current paper reviews the progress to date on the decadal assessment, including process, team conducting the study and the preliminary results.