

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

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Abstract

The economics of solar power satellite (SPS) concepts in the nearer term (e.g., within the next decade) has never been more viable – particularly in light of the dramatic reductions in the cost of access to space that are occurring. In addition, there is a great need for scalable power to support the development of space resources – particularly in light of changes in global government and commercial plans with regard to the Moon and cis-lunar space. Finally, the availability of affordable and abundant space solar power (SSP) for terrestrial markets has never been more important to advancing global ambitions vis-à-vis reduction of climate altering greenhouse gasses. 2018 was the 50th anniversary of Dr. Peter Glaser’s initial invention and his first paper in the Journal ”Science” on the topic of the solar power satellite (SPS). We are now at a turning point in progress toward the realization of the SPS.

This paper will present recent developments in concepts and markets for SSP, including the updated SPS-ALPHA “Mark-III” (SPS by means of Arbitrarily Large Phased Array) and a discussion of new markets for SSP on Earth and the Moon.