

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

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A CONCEPT AND COST ESTIMATION OF SPACE SOLAR POWER SATELLITE SYSTEM

Abstract

Due to global warming and air pollution, various energy-related policies are being established for better reconstruction after the Covid-19 Pandemic situation and efforts to solve global energy problems such as conversion from existing fossil energy. Accordingly, interest in eco-friendly space solar power satellite systems, which can reliably supply power 24 hours a day and is free from various environmental pollution, is increasing. In this study, we identified the need for space solar power satellite systems and examined concepts and RD trends. Based on this, when we predicted the cost of the solar power satellite system, we found that there is still a need for cost reduction compared to its utility. Therefore, we discuss future directions based on the need for space solar power satellite system and cost estimation results.