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Environmental impacts from the solar energy technologies

Theocharis Tsoutsos ^a ... Vassilis Gekas ^b

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Abstract

Solar energy systems (photovoltaics, solar thermal, solar power) provide significant environmental benefits in comparison to the conventional energy sources, thus contributing, to the sustainable development of human activities. Sometimes however, their wide scale deployment has to face potential negative environmental implications. These potential problems seem to be a strong barrier for a further dissemination of these systems in some consumers.

To cope with these problems this paper presents an overview of an Environmental Impact Assessment. We assess the potential environmental intrusions in order to ameliorate them with new technological innovations and good practices in the future power systems. The analysis provides the potential burdens to the environment, which include "during the construction, the installation and the demolition phases, as well as especially in the case of the central solar technologies" noise and visual intrusion, greenhouse gas emissions, water and soil pollution, energy consumption, labour

accidents, impact on archaeological sites or on sensitive ecosystems, negative and positive socio-economic effects.



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Keywords

Solar energy systems; Photovoltaic; Environmental impact assessment

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