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NEW APPROACH TO SIMULATION OF EXTRA-POWER SOLAR PLANT WITH POWER EVACUATION BY NETWORKS OF THE CHERNOBYL NPP

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Abstract

This paper deals with the system study for the development and connection of 1200 MWp Chernobyl photovoltaic (PV) plant to the transmission grid of interconnected power system of Ukraine. The aim of this study is to develop the planetary models of solar power plant, to perform quasi-dynamic simulation and to check network steady-state operating conditions at peak production of the PV plant, including identification of the element loadings in the transmission and distribution networks, bus voltages in the area, fulfillment of the grid code requirements. References 5, figures 5.

Key words: extra-power solar plant, Chernobyl nuclear power plant (NPP), power evacuation, quasi-dynamic simulation, solar irradiation, voltage, equipment loading.

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