

# Solar PV Selection Decision Tool: The case of U.S.A. Midwest Region

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## ABSTRACT

*The purpose of this paper is to demonstrate the use of a Solar Photo Voltaic (PV) Technology Selection Decision Support tool to guide consumers towards investing in the appropriate PV technology. The decision tool is focused on U.S. residential consumers, incorporating actual geographical data, real manufacture-provided PV technology attributes, PV cost and efficiency as well as real weather data. Our power generation predictive decision model outperforms the existing decision tools and incorporates the ability to carry out comparative performance analysis of up to six different PV technologies. The models' predicted PV daily and monthly power generations are validated using real-time PV power data from two U.S. Midwest facilities.*