

Bifacial PV Software for Sandia Repository

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Categories:

- Computer Technology

Keywords:

- Bifacial Solar Cell
- Computer Technology
- Solar Cell Modeling
- Solar Farm Modeling

Interest in bifacial photovoltaics (PV) in solar cell technology has been growing in the past years. A worldwide map of their potential performance can help assess and accelerate the global deployment of this emerging technology; however, the existing literature only highlights optimized bifacial PV for a few geographic locations or develops worldwide performance maps for very specific configurations, such as vertical installation. There is a need to be able to predict the energy yield of a bifacial solar module globally.

Researchers at Purdue University have developed the code to simulate the performance of a bifacial solar module. This technology can be used to calculate the energy output of bifacial PV modules. This view-factor approach is superior to current ray tracing methods due to it being more computationally efficient.

Advantages:

- Computationally efficient
- Boost bifacial gain

Potential Applications:

- Sandia National Lab repository
- Bifacial Solar Cell technology
- Solar Farm modeling

People:

- Alam, Muhammad Ashraful (Project leader)
- Sun, Xingshu

Intellectual Property:

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Contact OTC:

Purdue Office of Technology Commercialization
The Convergence Center
101 Foundry Drive, Suite 2500
West Lafayette, IN 47906

Phone: (765) 588-3475

Fax: (765) 463-3486

Email: otcip@prf.org