



Report E.5

E.5 BIPV Design and Performance Modelling

Examines features, functions and limitations of current solar PV design and management tools in relation to geophysical, technical, economic and environmental domains.

The report provides information on limitation and reliability of these tools in different settings and for different BIPV categories, indicating pathways and tools' selection that would provide the highest confidence and fidelity of results as well as positive user experience throughout the process.



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- The report streamlines workflows according to the type and complexity of BIPV integration and offers pathways and tools suitable for required case. The report included 15 domains of BIPV planning such as geophysical, technical, economic and environment which affect successful BIPV integration. 27 software, 9 online tools and 4 apps were compared against the aforementioned domains.
- The findings of this review showed none of the examined software and apps can cater to all the factors pertaining to PV project design and management. Results have shown that majority of tools used in BIPV modelling come from PV domain and consequently still lack important features regarding BIPV integration, especially for vertical or externally mounted BIPV.