



## Advancing BIPV Standardization: Addressing Regulatory Gaps and Performance Challenges

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### Editors:

Fabio Parolini<sup>1</sup>, Pierluigi Bonomo<sup>1</sup>,

<sup>1</sup> SUPSI, Switzerland

The Technical Report is available for download from [www.iea-pvps.org](http://www.iea-pvps.org).

## EXECUTIVE SUMMARY

The aims of this report are to:

- Provide a comprehensive overview of the challenges and advances in the standardization and testing procedures for Building-Integrated Photovoltaics (BIPV).
- Identify and analyse the regulatory gaps and the need for a new performance approach to BIPV.
- Present in detail the electrical and mechanical safety testing procedures specific to BIPV products.
- Highlight the importance of harmonizing testing procedures and certification processes to reduce costs and simplify market introduction.

The overall goal is to emphasize the necessity of a unified regulatory framework to support the widespread deployment of BIPV technologies. This framework aims to ensure consistent quality and safety standards across different regions, facilitating easier market access and fostering international cooperation.

An overview of the BIPV standardization challenges was prepared, presenting the main regulatory gaps, the need for standardization adaptation, and the specific testing procedures required for BIPV products. The report explores critical aspects of electrical and mechanical safety, structural integrity, and performance assessment necessary for BIPV products. It also discusses the current requirement for double certification of products and the associated costs, time, and uncertainties.

Furthermore, this report reviews specific projects such as the BIPVBOOST initiative, which focuses on developing adapted testing protocols for BIPV products. This initiative documents state-of-the-art criteria and requirements for BIPV product qualification and proposes initial testing protocols, including operating temperatures and impact resistance tests.

In conclusion, this report underlines the significant challenges faced by the BIPV industry due to the lack of clear testing and certification procedures. It suggests that international consensus and harmonization of certification processes are crucial for the widespread adoption of BIPV products. This approach aims to streamline regulatory processes, reduce costs, and support the development of a sustainable built environment through BIPV technology.