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BREEZE PROJECT.

ADVANCING PV IMPLEMENTATION IN BUILDING RENOVATIONS

Project Overview

BREEZE aims to speed up the uptake of PV systems in building renovations and new constructions across the EU. The project supports the **Energy Performance of Buildings Directive (EPBD)** and its **Solar Mandate** by addressing technical, regulatory, and financial barriers.

Key areas include:

- Rooftop PV for existing and new buildings
- Building-Integrated PV (BIPV) as a dual-function solution combining energy generation with building materials
- Balcony PV for small-scale and accessible applications

Objectives

- Develop standardized methodologies and tools for integrating PV into renovation projects.
- Embed PV generation into building energy performance assessments.
- Support national policies by providing clear, evidence-based recommendations.
- Deliver capacity-building, training, and technical assistance to policymakers, designers, and installers.

Technical Approach

The project combines analytical frameworks, pilot testing, and hands-on trainings to develop actionable PV solutions along with other renovations. BREEZE focuses on rooftop PV, building-integrated photovoltaics (BIPV), and balcony PV, using scenario planning and region-specific indicators to optimize energy performance and economic viability across multiple building types. Actions to be followed:

- Creation of a **renovation scenario planner** that combines energy efficiency upgrades with PV deployment.
- Development of a **BIPV framework** with performance indicators tailored to building types, energy demand, and regional conditions.
- Pilot demonstrations in **Poland, Italy, and France**, testing different PV deployment models.
- Generation of **best practice guidelines** for PV integration, aligned with EU standards.



Innovation & Relevance

BREEZE develops practical, data-driven tools that allow building owners and policymakers to evaluate PV integration in real renovation projects. The project goes beyond generic energy modeling by combining PV generation forecasts with building energy demand, renovation costs, and architectural constraints. Its BIPV framework provides actionable guidance on material selection, installation methods, and expected electricity yields for different building types and climates. Pilot demonstrations in Poland, Italy, and France validate these methods, producing evidence-based recommendations that can be directly applied in national renovation strategies.

Expected Results

- Identification of affordable PV-based renovation pathways improving building performance and comfort.
- Evidence to support the inclusion of PV in all major renovation scenarios under the EPBD.
- Practical recommendations to guide EU Member States in adopting harmonized PV policies.
- Trained professionals and informed stakeholders prepared to scale up PV adoption.

Impact

- Supports the EU's transition to **Zero Emission Buildings (ZEBs)**.
- Accelerates the adoption of PV technologies in residential and commercial building stock.
- Strengthens cooperation between research, industry, and policymakers.
- Contributes directly to EU climate and renewable energy targets.



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