

Building Integrated Photovoltaics Declaration

How solar construction products can contribute to the European Green Deal

In the last decade, solar PV has evolved dramatically to become the world's fastest growing power generation source and the most affordable clean energy technology. In Europe, solar installed capacities have reached over 131.9GW, with 85GW installed on building roofs. With impressive cost-reductions and a steep technological learning curve, **solar construction products**, also known as Building Integrated Photovoltaics ("BIPV"), could bring this potential to the next level.

Solar construction products are extremely versatile materials which **enable the seamless deployment of a renewable energy throughout the building envelope**. Solar roof tiles, façade cladding or windows can increase the surface area available on buildings for solar PV power generation.

Highly innovative, "made in Europe" and with strong market prospects, solar construction products can become a flagship for EU industry. Crucially, they can support the objectives of a European Green Deal and accelerate the decarbonisation of EU's building stock. Whereas over 200 European solar construction products are on the market and 57% of the global installed capacity is in Europe only 1% to 3% of the potential has been met.

Making solar construction products mainstream would contribute to the European Green Deal by:

- Supporting the achievement of the climate-neutrality objective by 2050, providing innovative solutions to reduce CO2 emissions in EU buildings and increase their potential for clean electricity generation and local consumption.
- Providing new opportunities for integrated renovations of the existing building stock by facilitating the deployment of on-site renewables on heritage-listed buildings.
- Delivering cleaner, healthier cities for EU citizens reducing the need for fossil heating.
- Supporting global European leadership in clean energy technologies and a strong domestic manufacturing capability.
- Attracting investment into disruptive R&D&I in innovative clean energy technologies ensuring they remain in the EU.
- Enabling the Just & Fair Transition by securing local and quality jobs that cannot be outsourced.

To unleash these benefits, the European Union should focus on 5 key priorities:

1) Market pull

Expanding the size and depth of the European and global markets is central to secure a prosperous European solar construction products industry. It helps generating investments of scale and enables further cost-reductions that increase the global competitiveness of the industry.

EU Member States must strive for an **ambitious implementation of the Clean Energy Package** and ensure **on-site solar installations form a central part of their National Energy and Climate Plans and Long-Term Renovation Strategies**. However, this cannot be the end of the road. The **European Green Deal**, through the Renovation Wave initiative, should lead to an increased uptake of innovative clean energy technologies within urban environments, notably through a **focus on integrated energy renovations** that combine on-site renewables, energy efficiency improvements and demand side flexibility – three elements enabled by many BIPV materials. Furthermore, in line with the objectives of the European Green Deal, the future **Construction Products Regulation ("CPR") should foster the uptake of sustainable and innovative construction materials**.

2) Industrial Strategy

Adopting “a more strategic approach to renewable energy industries”¹, such as the solar construction product industry, will be key to meet the objectives of the European Green Deal and ensure the decarbonisation of the EU’s building stock.

To do so, renewables must be acknowledged as a **Key Strategic Value Chain (“SVC”)**, which would enable innovative BIPV manufacturers to submit **Important Projects of Common Interest (“IPCEIs”)** that can support the scale-up of the entire BIPV value chain. In parallel, the **Guidelines on State aid for environmental protection and energy** should allow the publication of BIPV-specific tenders.

3) **Standardisation**

Delivering a real Single Market for construction products is crucial to open new market opportunities and support the competitiveness of the European BIPV industry.

The **certification process for construction products must be streamlined** to make available a clear normative framework allowing solar construction products to be commercialised throughout the EU. Strong EU standards would reinforce market confidence and protect BIPV companies against IP theft. The **review of the CPR** is the perfect opportunity to revamp the procedures for harmonised standards to ensure the EU’s construction policy is aligned with the European Green Deal and the EU’s climate, industrial and innovation ambitions.

4) **Innovation and Training**

As a cutting-edge set of technologies, solar construction products will be at the forefront of innovation within the PV and construction industries. Technological advances will increase electricity production, further reduce costs and enable the **mass customisation of solar construction products**.

For these developments to be in sync with the Renovation Wave, the EU should establish a **Horizon Europe Mission** that supports cities in their systemic transformation towards climate-neutrality and **enables the uptake of innovative and sustainable construction products**. In addition to this, higher educational programmes should aim to foster **innovation in PV technologies through Marie Skłodowska-Curie actions**. Vocational education, notably through the **Erasmus+ Programme**, should support education and training programmes that provide the **skills required by cities to become climate neutral**.

5) **Circularity**

The European industry for solar construction products is committed to ensure that the products it manufactures correspond to the highest standards of sustainability.

We will work with the European institutions to ensure **Circular Economy Action Plan and associated Sustainable chemicals framework and Zero-Pollution Strategy** are in line with a climate neutral EU. As the market for solar construction products grows, research and innovation funds should be channelled to develop solutions for their reutilisation and recycling.

¹ European Commission (2020) “A New Industrial Strategy for Europe”