Inception Impact Assessment: Environmental impact of photovoltaic modules, inverters and systems

PVthin aligns with SolarPower Europe and welcomes this opportunity to provide feedback on the European Commission’s Inception Impact Assessment on Ecodesign and Energy Labelling requirements for PV products. We closely followed the preparatory work conducted by the Commission and the JRC in advance of this Inception Impact Assessment and look forward to the outcome of this work.

Of the different policy options outlined in the Inception Impact Assessment, we support option 6 – the introduction of Ecodesign, Energy Labelling and EU Green Public Procurement (GPP) measures. This choice would follow a holistic approach to support a sustainable PV industry and consumer landscape.

PVthin, in alignment with SolarPower Europe, supports the Commission’s Ecodesign proposals, which will be critical to establish a harmonised set of sustainability requirements for the PV sector at EU level. We particularly support the Commission’s proposal to take into account, among others, the durability, degradation, recyclability, and ecological profile (notably carbon footprint) of PV products, building on existing methodologies such as the Product Environmental Footprint Category Rules (PEFCRs) for PV or the Environmental Footprint Declaration (EPD). We encourage the Commission to also ensure consistency with existing international standards that have proven to be successful in harmonising criteria and impact categories, such as the EPEAT Ecolabel for PV modules and inverters. These sustainability and circular economy aspects will also play a key role in the recast of the WEEE Directive planned for 2023. In this context, we would like to see these measures followed up with the establishment of a clear framework for reusing and refurbishing solar PV products to further enhance the circularity of solar energy.

The strategic importance of establishing PV Ecodesign criteria was recognised in the updated 2021 EU Industrial Strategy, which states that the market expansion of solar “is a key opportunity, as greater scale should bring lower energy costs for industry as well as society at large. The Commission welcomes efforts to scale up manufacturing of these technologies in the EU, such as the industry-led European Solar Initiative.” Once defined, we would encourage the Commission to make full use of the Ecodesign requirements in an industrial policy context, including GPP, Guidelines for State Aid, and PV support schemes under the Renewables Energy Directive. By harmonising requirements and calculation methods at the EU level, the Ecodesign measures will enable member states to better integrate and weight sustainability aspects such as CO2 footprint in relevant procurement and auction schemes, creating a level playing field across jurisdictions.

With regard to the proposed Energy Labelling requirements, we support their use as an additional instrument to inform consumers in a B2C context, provided they are underpinned by a clear methodology. This measure should not become a disincentive to install certain PV applications, but rather a tool enhancing transparency and helping consumers take informed decisions. Provided that this measure is targeting residential PV systems, manufacturers could be given the option not to include the Energy Label on products destined for non-B2C markets, which already use sophisticated site-specific design and energy prediction software to evaluate technology, real world efficiency and energy characteristics. Energy labelling for these applications would be unnecessary, complicating, and costly in mass deployment situations.
Finally, market surveillance and enforcement will be critical for enhanced sustainability rules for PV products to be successful. The stricter the requirements on sustainability, the more important it will be to ensure these are properly enforced, including for imported products, while at the same time avoiding excessive burdens on producers. More should be done to reward manufacturers that allow for transparent supply chain certification and inspection.