

Feedback for the Consultation Forum Meeting on potential Ecodesign and Energy labelling requirements for photovoltaic modules, inverters and systems



The European Solar Manufacturing Council (ESMC) supports the introduction of sustainability policies for PV modules, inverters and systems, and in particular the proposal for the mandatory policies Ecodesign and Energy labelling, coupled with the voluntary Green Public Procurement. We believe that these policies, if designed well, will promote sustainability and can contribute to the EU Green Deal, 'Fit for 55', RePowerEU and especially the EU Solar Strategy.

Manufacturing in Europe is more sustainable than in most other parts of the world and sustainability criteria therefor potentially provide a competitive advantage for European manufacturers. This has been recognized by the Commission and the EU Industrial Strategy Update (5 May 2021) therefore refers to "EcoDesign measures for solar panels, including possible requirements on carbon footprint".¹ The EU Solar Strategy also state that "these measures would concern the efficiency, durability, reparability and recyclability of products and systems, to incentivise environmentally sustainable devices".

However, sustainability benefits and potential benefits for European manufacturers can only be realized if the policy is designed well, and the effects and impacts therefore depend on how it will be implemented. The policies need to be verifiable, as simple as possible, and have a strong element of verification/certification to avoid cheating and provide a level playing field. However, if the policies are too weak and leave loopholes, in the worst case, they could be counter-productive, giving the impression of promoting sustainability, while in fact they might not.

We are especially concerned about the proposed methodology in both the proposed EcoDesign and Energy Label legislative texts.

EcoDesign methodology

ESMC wants to see a more established and proven methodology, such as the EPD PCR² (the international EPD system is commonly used in the construction industry) or possibly the Global Electronics Council's (GEC) EPEAT scheme³, instead of the proposed PEFCR methodology.

The motivation from our side is the following:

(1) The functional unit should be $\text{kgCO}_2\text{eq/kW}_p$, rather than $\text{kgCO}_2\text{eq/kWh}$ (as is the case in PEFCR), as this is the direct attribute of a panel being placed on the market. This makes it also simpler to reflect the scope-3 emissions (embedded emissions) of the product (production phase) which is independent of the use phase. This is in line with the assessment that the use-phase should not be taken into account, as the manufacturer or seller of a PV module does not know how it will be used. The functional unit of $\text{kgCO}_2\text{eq/kW}_p$

¹ https://ec.europa.eu/info/sites/default/files/communication-industrial-strategy-update-2020_en.pdf

² <https://www.epd-norge.no/pcr-register/npcr-029-2020-part-b-for-photovoltaic-modules-article2642-353.html>

³ <https://www.epeat.net/about-epeat>

also makes it simpler and easier to verify the measurement, and hence reduced possibility of “tweaking the numbers”. Such a methodology is also consistent with existing schemes such as French tenders, EPD PCR, Korean tenders and upcoming GEC’s EPEAT label.

(2) Energy Attribute Certificate (EAC) to count towards the carbon intensity of electricity should not be included, as is the case with the suggested PEFCR methodology. ESMC believes this approach would significantly weaken the policy, as it would allow “dirty” producers to buy their way out, which implies a risk of “green washing”. This would potentially undermine the benefits in terms of sustainability and the competitive advantage for European manufacturers. The carbon content of electricity should be based on the National grid mix without allowing market-based mechanisms to avoid the risk of double-counting green electrons, to avoid manufacturers with poor carbon footprint to potentially cheaply buy their way out, and to avoid the risk of “green washing”. This approach is also consistent with existing schemes such as French tenders, EPD PCR, Korean tenders and upcoming GEC’s EPEAT label.

Energy Label methodology

ESMC strongly suggests that the Energy labelling of PV modules should be based on the carbon footprint using the same methodology as for Ecodesign, where the environmental impact of a module is reported rather than a labelling that is based solely on the conversion efficiency of a module. The latter rather reflects how efficient a PV module is in relation to the surface it occupies, no matter how much energy and what kind of energy was used to produce it.

We would be happy to engage in further and more detailed discussions.



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