

FEEDBACK ON ECODESIGN AND ENERGY LABELLING FOR PV MODULES, INVERTERS AND SYSTEMS

The European Solar Manufacturing Council (ESMC) supports the introduction of sustainability policies for PV modules, inverters and systems, particularly the proposal for the mandatory policies of Ecodesign and Energy Labelling, coupled with the voluntary Green Public Procurement. If designed well, these policies will promote sustainability and contribute to the EU Green Deal, 'Fit for 55', RePowerEU and the EU Solar Strategy.

By means of this feedback, emphasis is placed on the previous [feedback](#) provided by ESMC.

Methodology

ESMC remains critical to the proposed use of Product Environmental Footprint Category Rules, PEFCR, as a methodology to classify the environmental footprint of photovoltaics and related material. The PEFCR is a less proven methodology and offers the use of green certificates and guarantees of origin (market-based mechanisms) for the carbon footprint calculation. While it may be possible to maintain and monitor a decent system for certificates of origin within Europe, this will not be the case in all other countries. The lack of transparency in other regions may lead to companies abusing mechanisms and falsely labelling products as 'green', resulting in 'greenwashing' of products destined for Europe. The fact that each Member State will be responsible for the verification of the system means that Member States with less rigorous control can endorse actors that would not pass the test in other states. Less stringent Member States can become gateways to the European market. If the regulation around such certificates is weak, it will undoubtedly lead to cheating and greenwashing, and the intention of the regulation will be lost. Offered as a better alternative, EPEAT allows for a maximum of 25% of market-based energy usage and has more strict control mechanisms on which kind of certificates and PPAs that are allowed.

All in all, the PEFCR methodology is less rigorous and established than its alternatives. The allowance to use market mechanisms to offset real energy use poses a risk of compromising the environmental integrity of the Ecodesign carbon footprint system.

In addition, using two different methodologies, one for the mandatory Ecodesign and another for the voluntary, but globally recognized, Ecolabel of the Global Electronic Council, leads to higher costs for module manufacturers that want to be certified by both. Hence, using the EPEAT methodology also for the Ecodesign legislation would save resources for module manufacturers. ESMC therefore strongly recommends DG Grow to apply a more robust methodology, such as the recently launched Electronic Product Environmental Assessment Tool (EPEAT) criteria for PV modules from the Global Electronic Council (GEC). EPEAT holds a globally recognized eco-label certification.

Many times during the consultation process, it has been mentioned that the proposed methodology is "what the industry wants". As the organization representing more than 60 members of the European upstream PV industry, on which products these regulations will be applied, ESMC stresses that this is not the case. European manufacturers wish to see an established non-bureaucratic methodology, and that is not PEFCR. EPEAT stands out as a more robust alternative, and that is what the European manufacturing industry would prefer.

Energy labelling

ESMC reiterates that a robust and non-bureaucratic system for energy labelling would be very beneficial for the PV market, with the potential to spur even more innovative manufacturing processes of PV materials. As mentioned before, it is important that the system will be based on a similar 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. ESMC welcomes the inclusion of carbon footprint as part of the energy labelling (as presented at the stakeholder meeting 11/4), but as concluded at the stakeholder meeting – and in order to avoid confusion and better integrate the climate impact from the manufacturing stage – the label needs to have a more prominent position on the energy label as such. Another option could be to use Energy Return of Investment (EROI) as a parameter in the label. EROI is a measure of how much usable energy (exergy) is produced from a particular energy resource compared to how much exergy is required to manufacture it. By incorporating a measure that reflects the input energy required to produce a module, the Energy Labelling system could better account for the positive impact of lower input energy in achieving higher classification. This would ensure that achieving a high class is not solely reliant on high conversion efficiency. ESMC also urges DG Grow to consider the experiences of public procurers in developing a proper energy labelling system. In the study presented by DG Grow 11/4-23, that was unfortunately not the case.

Social concern

The concept of sustainability entails not only environmental but also social concerns, as described in the UN sustainable development goals. Social sustainability is not part of the proposed legislation for either Ecodesign or Energy labelling. ESMC would like to stress that social concerns such as working conditions, the right to unionize, decent wages, etc, should be part of the overall purpose of a more sustainable PV value chain. If social concern falls outside the scope of Ecodesign and Energy Labelling, DG Grow should prioritize integrating those aspects into other legislative actions of the European Commission. As a start, the US legislation on forced labour could model as a reference.

ESMC remains open for further deliberations on improving the environmental integrity of PV manufacturing.



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