ESMC FEEDBACK ON CRITERION FOR THE SUSTAINABILITY ASSESSMENT OF ULTRA-LOW CARBON SOLAR MODULES

ESMC is supportive of the work to include a carbon footprint criterion in the environmental EPEAT label by the Global Electronics Council (GEC). Below is the input from ESMC on the draft Criterion for the Sustainability Assessment of Ultra-Low Carbon Solar Modules for public consultation.

Input to discussion points (DPs).

DP1: Threshold for ULCS

- Alignment with existing methods is an advantage, to make systems harmonized and easy to follow.
- ESMC recommend calculating the "whole module", including frame, like for PCR/EPD, (Alternative 2).
- Going for alternative 1 (French tenders), would secure a harmonization with the French tender regulations. The disadvantage of this approach is the dependency to regulations in one specific country.
- The actual value is to be showed and not just a binary yes/no with respect to a threshold. ESMC believe there is a need to have an agreed method of calculating, before discussing the actual threshold, but the threshold should be a "stretched target". It is a good idea to consider adjusting the threshold periodically. The threshold could for example be based on the best 25% of the actual market.

DP2: Verification requirements

- Verification is important to prevent cheating.
- A follow-up system to control that production is according to certification should be implemented, where experience could be drawn from France.
- ESMC believe it could be beneficial to have a tracking and traceability of every production step by marking each wafer with a matrix code and storing all relevant production parameters. Together with high level quality inspection tools (e.g. AOI – Automatic Optical Inspection) the production quality for each single PV cell can be optimized and proved even after years.
- A drawback of too much control can be that is very expensive and hard to follow for smaller producers.

DP3: Geographic level and source of electricity related emission factors

ESMC recommend option 1, based on the following reasons:

- National grid mixes are used in the French tenders and NPCR 029.
- It is easier to control and verify, e.g. use of correct grid mix is easier to control as compared to the production site for different products from the same producer.
- Option 1 also has the potential to drive national policies towards a larger share of renewable energy.

DP4: Application of PCR

ESMC recommend alignment with NPCR 029, based on the following reasons:

- International method
- Based on ISO-standards
- Full LCA for the module

DP5: Acceptable sources of electricity-related emission factors

ESMC recommend option 1; to use only full country level emission factors, based on the following reasons:

- In line with PCR and French tenders
- Easier to control
- Less easy to cheat
- Larger companies have more resources for "buying their way out"
- RECs (Renewable Energy Credits) are normally valid for a year, while the label is valid for a long time. Including RECs would give a possibility to buy a REC for 1 year, while have low carbon values for many years.

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