

Supporting study on photovoltaic products: ongoing work on potential Ecodesign (ED) and Energy Labelling (EL) measures

Minutes of the stakeholders webinar (Webex, 19/11/2020)

DRAFT

Participants:

• EC DG GROW (organizer)	• ENOVA	• Qcells
• EC JRC (organizer)	• ESMC	• REC
• EC DG SANTE	• Eurometaux	• RENOLIT Belgium NV
• ADEME	• European Copper Institute	• RUC
• AEA	• EXXERGY GmbH	• RVO
• AIRBUS	• FORNIUS	• SEAI
• ANEC/BEUC	• Fraunhofer ISE	• Slovak Republic, Ministry of Economy
• Belgian Ministry of Environment	• French Ministry for the Ecological Transition	• SMA
• Bulgarian Ministry of Economy	• German Environment Agency	• SMA Solar Technology AG
• BSW Solar	• German Institute for Materials Research & Testing, BAM	• Solar Power Europe
• CEA	• German Environment Institute, BIFA	• Soli Tek R&D, UAB
• CEFIC	• German Ministry for Economic Affairs and Energy	• Swedish Energy Agency
• Consip	• HESPUL	• TECNALIA
• Coveme Spa	• IEE-CAS	• Finnish Energy Authority
• CSTB	• IKEA	• TUV
• CTC	• Kostal	• UAB "Soli Tek R&D"
• Cycleo	• LG	• UK Department for Business, Energy & Industrial Strategy
• Danish Technological Institute	• NorSun	• University of West Attica
• ECOS	• NVE	• Utrecht University
• EEA	• OCU	• VDMA
• EMEA	• OTOVO	• VITO
• Energiestyrelsen	• Panasonic	• VOLTA
• Energy Authority of Finland	• Photovoltaic Austria	• Wacker Chemie AG
• EnergyVille	• PV CYCLE France	

• Engie	• PVThin	
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Objective:

Inform stakeholders on the process and the planned activities on the potential regulatory measures for photovoltaic related-products and systems, in particular in regard to Ecodesign and Energy Labelling requirements.

Agenda:

- a) Background & meeting objectives (DG GROW)
- b) The preparatory study for solar photovoltaic modules, inverters and systems: key outcomes (JRC)
- c) Activities foreseen within the current study: deliverables and timeline (JRC)
- d) Walk through the policy recommendations for new requirements under Ecodesign and Energy Labelling Directives, followed by Q&A after each section (JRC/DG GROW)
 - a) Potential Ecodesign requirements for modules and inverters – energy related aspects
 - b) Potential Ecodesign requirements for modules and inverters – material efficiency aspects
 - c) Potential Energy Labelling scheme for PV systems
- e) Concluding remarks and the next steps (DG GROW)

Summary of the discussion

1. Background & meeting objectives (DG GROW)

DG GROW presented the aim of the meeting, as well as the context for the project.

2. Presentation of the key outcomes form the preparatory study for solar photovoltaic modules, inverters and systems (JRC)

Link to the preparatory study and the transitional method report, can be found [here](#).

3. Activities foreseen within the current study: deliverables and timeline (JRC)

- A participant asked how market surveillance is considered in the proposed requirements under ED and EL. DG GROW responded that for each measure, we discuss and propose approaches considering market surveillance. For the new categories of requirements, we need to define and test new approaches. One objective of this meeting is to hear reactions and gather feedback, especially on the innovative proposals.
- A participant asked if existing international standards are considered in the absence of relevant European equivalents. DG GROW that the European standards are the reference for the European Commission, in any case it is part of all the preparatory studies to do a screening of the international standards. When a standardization request to the European standardization organisation is issued by the Commission (in order to develop standardized methods for the testing and calculation of

parameters, with the aim to assess compliance with the requirements of a Regulation), international standards can be also considered/analysed by the European Standardisation Organisations.

- A participant asked if there would be any further meetings with stakeholders foreseen in the project. DG GROW responded that a meeting on the supporting methodology/xls tool for the energy labelling calculation is foreseen in the upcoming months. The registered stakeholders will be informed.
- A participant asked if there will be formal documentation distributed to stakeholders. DG GROW responded that the proposal of the regulation will be prepared ahead of the Consultation Forum, and sent together with an explanatory memorandum, in due time to the Consultation Forum members and stakeholders, i.e. four weeks in advance.

4. Walk through the policy recommendations for new requirements under Ecodesign and Energy Labelling Directives (JRC/DG GROW)

JRC presented potential Ecodesign requirements for modules – energy related aspects

- A participant raised a concern that lifetime electricity yield is dependent on the parameters, such as location and weather conditions; thus, it needs to be standardized. A second question was raised on the existence of a modelling tool to simulate the components and all the installation features to get the system energy label. JRC/DG GROW confirmed that the proposed parameter for the “lifetime electricity yield” is linked to the module performance under standardised climatic conditions, independent from the location-specific aspect. Secondly, in reply to the system aspects raised, there is an excel tool developed by the JRC to calculate the system label that allows several input parameters related to the intended installation as well as potential losses. The JRC team proposed a methodology to measure the energy yield for the PV systems (see transitional methods report), for which this existing standard (IEC 61853) applies. A further option – to be explored further - could be to include site-specific data. .
- A participant asked where the information on energy yield is expected to be reported by the manufacturers (e.g., installation manual, sales sheet, or product data sheet), and questioned the added value for consumers to access information on the lifetime electricity yield, which can be confusing as the lifetime energy yield depends on so many local individual factors. This could make manufacturers run into trouble if this energy yield that was declared in the warranty claim is not realised. JRC/DG GROW responded that the proposal for required information for PV modules is based on the energy rating standard IEC 61853, should not be confused with the information required for the PV system. This latter requirement is also detailed in another section later for the system energy label. About the manufacturers lifetime warranty claims, this is typically not dealt with by Ecodesign Regulations. The proposals for durability (e.g. degradation rates based on tests data or default values) are still under development and comments are welcome.

JRC presented potential Ecodesign requirements for inverters– energy related aspects

- A participant asked about the approach considered in relation between ED and EL, bringing the example of the existing one for the heating appliances, including solar collectors; a) would a similar approach considered for the PV systems, b) would a scope of the EPREL database be expanded to ED

parameters, or would information requirements be added under Energy Labelling? DG GROW confirmed that requirements for modules and inverters are proposed to be a subject of ED, while PV systems/installations shall be considered under the scope of the EL. Under the latter, the proposed “installers label” would be operationally based on the methodology proposed by JRC. EPREL data can only be related to EL regulation. Alternatively, we could consider different options, as mentioned by the participant, one being e.g. that the information for the module yield is delivered with the information for the energy label.

JRC potential Ecodesign requirements for modules – material efficiency aspects

- A participant asked about the rationale for introducing two approaches for declaring the degradation rates (i.e., why to allow unvalidated data if it can't be used for energy labeling). A manufacture declaration of unvalidated values within a warranty claim could pose problems if the declared value is not met: the legal services of DG JUST, DG ENER and DG GROW should be aligned. DG GROW responded that the approach of declaring “unvalidated data”, the least preferred option, is an alternative for these manufactures that may not yet have access to field data (e.g., products entering the market).
- A participant raised a concern that products entering the market may have difficulties accessing validated information on degradation for 5 years and suggested a differentiation of the requirements for different technologies. JRC/DG GROW recognizes the limitation of the field data collection for new products entering the market, but credible data require a long time series. For well-established products, companies have records of degradation data, and if the degradation value is below the average percentage, it can even be used as a positive selling claim.
- A participant welcomed new material efficiency measures but suggested going beyond the reporting requirements (i.e., mandate for availability of spare parts and that parts can be dismantled with no special tools). DG GROW responded that the starting point here is the set of requirements for material efficiency mentioned in the Ecodesign regulation of 2019 for servers. These will be of course need to be made product-specific. For example, it may not be relevant to include a requirement on the non-use of proprietary tools to disassemble large inverters, as these are mainly B2B products.
- A participant asked about the timeline for submission of the standardization request for the semi-quantitative performance criteria. How is the Commission planning to act, is the EN standard is not be available once the regulation comes into force? DG GROW has a priority to establish requirement for which there are already sound methodologies, either by standards or transitional methods that could be specifically developed by the JRC.
- A participant raised a concern that the EN standard for recyclability (EN45554) is a generic one and may not be directly applied on the product level. A participant suggested contacting CEN CENELEC, the eco-design coordination group, which is discussing some measures in this regard.
- A participant asked about the proposal for conformity checks of field data (e.g., for lifetime performance degradation). DG Grow responded that the team is exploring different approaches, including innovative ones, such as the extended durability testing under discussion in international

standards working groups that would complement existing type approval testing. Another participant commented on the factory quality control; if proposed they would need to be justified.

JRC potential Ecodesign requirements for inverters – material efficiency aspects

- A participant questioned a need to declare the content (in grams) of indium and gallium instead of use of these materials (y/n). This comment also applies to the requirements for the PV modules. JRC/DG GROW responded that the information declaration is intended for the organization that take care of the end-of-life treatment of the components (i.e., disposal and recyclability); it also addresses possible use of critical raw materials. The comment is welcome and will be considered.
- A participant asked if there are considerations regarding exclusions from the regulation and when it will be determined. DG GROW responded that it usually discussed once the regulation is drafted. For example, the transport is normally out of ED scope, and the Commission may want to include some of the specific sub-groups of products or features that are problematic or can't be covered under the regulation.

JRC potential Ecodesign requirements for modules and inverters – ecological footprint

- A participant commented that the use of the EN15804 would be preferred over the PEF guideline for some Member States, e.g. Belgium. The EU standard has been longer available, thus, more frequently applied on the national level.
- A participant asked if the self-declaration of the energy mix at a factory level is to be considered, especially if the carbon impact is lower than the country mix. DG GROW responded that the intention is to take it into account it. The granularity level in such case should go beyond the national energy mix and consider aspects as such as RES purchase, self-generation, etc. The work is ongoing; feedback and comments are welcome.

JRC potential Energy Labelling scheme for PV systems

- A participant asked if (and when) information on applicability of the *energy-generating product definition* under EL will be shared with stakeholders. DG GROW responded that from the ongoing discussion, the reply is not straightforward and requires additional information. Once available, the Commission may disclose the results of a legal check when relevant (and of interest) to the stakeholders.

DG GROW informed the stakeholders that written comments on the presented information are welcomed. Within the next months an Expert Meeting is foreseen on the definition of the energy label and the associated calculation tool. The Consultation Forum will take place indicatively in the Q3 of 2021, where the draft working documents will be presented.

DG GROW thanked all participants for their participation and closed the meeting.