



European Solar Manufacturing Council

Position paper on Ecodesign policy development

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The JRC report proposes requirements for an Ecodesign instrument for PV modules and inverters. The instrument described in the report from JRC corresponds to minimum performance requirements.

The use of the word "Ecodesign" for this instrument may mislead the customers and the industry.

1/ Ecodesign: objectives and content

The concept of Ecodesign - as it is described in the Directive 2009/125/CE - aims to improve continuously the environmental impacts by taking it into consideration at design stage and throughout the whole life cycle.

The Ecodesign assessment for a product is usually performed by an evaluation of several indicators at the manufacturer level:

- Commitment of the management for Ecodesign
- Organization of the company oriented towards Ecodesign
- Existence of a Life Cycle Analysis of the product
- Supply chain management and influence on its strategy
- Design strategy based on:
 - The use of material with less impact
 - The reduction of the use of material
 - The optimization of the production technology
 - The optimization of the logistic
 - The reduction of the impact during the lifetime
 - The life cycle and the increase of its duration
 - The management of the end of life

A typical Ecodesign evaluation for a product gives a score which describes the commitment of a company towards the Ecodesign. The evaluation system is comparable to the one of the Corporate Social Responsibility (CSR). These evaluations may never reach the highest score/rating, since one can always do more and better in terms of environmental impact or in terms of CSR.

Continuous competition for reaching the best score/rating is an efficient way to lower the environmental impacts of a technology.

2/ Ecodesign label: limits and weaknesses

The proposed Ecodesign instrument for PV modules is built as a label and not as an evaluation. Policy options are proposed which severely limit the scope:

- Preferred module policy option 2.1 only deals with the requirement for yield information in kWh/kWp.

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- Preferred module policy option 2.2 proposes some additional features:
 - Performance requirements: defined under the form of a test sequence following IEC 61215 - already a minimum requirement for PV modules (not a quality, reliability or efficiency indicator)
 - Lifetime performance degradation: accessible through a declaration from the manufacturer over the behavior of the product during 30 years
 - Repairability: limited to some components which correspond to 3% of the value of the PV module
 - Dismantlability: in good accordance with the management of the end of life in an Ecodesign process
 - Material disclosure: mainly concerns harmful material like **Cadmium** or **Lead** which are actually prohibited in all other electrical products in Europe - it doesn't take into account glass or aluminum which usually represents 90% in weight of the PV modules.
 - For example, 90% of solar glass is using Antimony (heavy metal) as a bleacher, which can be avoided by using a flat glass process instead of cast glass
 - The material disclosure should also concern the consumables used by the complete supply chain.
- Preferred Ecodesign policy option 2.5 requires an information for Life cycle data information. The focus is made on GER and GWP in good accordance with the Directive 2009/125/CE which mentions: "greenhouse gas mitigation (...) should be considered as a priority environmental goal".

The proposed **Ecodesign instrument demonstrates significant gaps** compared to an Ecodesign assessment. As presented, the instrument is not efficient to fulfill the objectives of the Directive 2009/125/CE.

3/ Ecodesign instrument: why it is inefficient as proposed

3a. Incomplete life cycle

The proposed instrument does not take into account the complete life cycle: it explicitly looks at performance during maintenance, using or end of life but does not give clear indication for the performance in the selection and use of raw material, the manufacturing, the packaging or the transport. No control of the environmental impacts is proposed on the most impacting part of the life cycle.

3b. No commitment from the actors

In order to answer the demand, it seems tempting to use the Ecodesign instrument to give a label to most of the actual products available on the market. However, the proposed label would imply no change in the company's commitment, organization, design strategy or management of the value chain and would not fulfill the requirement of the Directive 2009/125/CE - Annex V.

3c. Meaningless approach





If an “Ecodesign label” is given to companies which did not provide any effort to get it, the word “Ecodesign” will lose its meaning at the expense of the companies which are committed to a real and complete Ecodesign assessment. It would correspond to giving a “Michelin star” to any anyone able to turn on the kitchen's oven.

3d. Inadequate for fast-changing market

Once the instrument is validated for its products, the manufacturer does not need to invest any additional effort for improving the environmental impacts. This is inconsistent with the aim of “continuous improvement of environmental impact” of the Directive 2009/125/CE. With the fast development of the technology in the solar industry, anyone may access the Ecodesign criteria within 12 to 18 months. Ecodesign should be updated on a regular basis to reflect the market. Recertifications are necessary.

Relatively new technologies, such as bifacial modules or heterojunction technology, which take an increasing and substantial market share, are currently not reflected appropriately.

4/ ESMC Recommendations

The policy instrument as proposed by the JRC is not consistent with the meaning of Ecodesign as described in the Directive 2009/125/CE but is merely a “Minimum Entry Requirement”.

ESMC recommend to create an Ecodesign evaluation based on a score or rating (in addition to a minimum requirement) in order to ensure the Ecodesign objectives.

