PVthin welcomes the legislative initiative on ‘green claims’, and supports the overarching objective to harmonise such claims bringing further coherence to the EU Single Market. As an international trade association promoting photovoltaic (PV) technologies based on thin films, PVthin supports the EU’s ambition to establish itself as a global sustainability leader, paving the way for other regions to follow. Such ambition is clearly in line with the EU’s far reaching climate goals, setting a visionary global sustainability benchmark. The establishment of such a standard is something that the innovative, and fast-paced, thin-film PV industry can support, as a continuation of the work done on an EU Product Environmental Footprint Category Rules (PEFCR) for PV, developed during the 2013-2018 Pilot Phase. At an international level, this methodology is already used to validate Life Cycle Assessment (LCA) results in the framework of the International Sustainability Leadership Standard for Photovoltaic Modules and Inverters (NSF/ANSI 457). Likewise, it has also become the basis for a Type-III Ecolabel for the PV product category in the EPEAT registry, expected to be launched later in 2020.

Following on from the Green Deal, and now the Green Recovery package, it is clear a stronger methodology/standard is needed to measure the ‘greenness’ of the energy sector, particularly renewable energy and ‘green electricity’. Therefore, a clear framework to measure ‘green electricity’ and more broadly, ‘green claims’ would be welcomed by the PV industry, and in turn the thin-film value chain. This approach would address the significant energy requirements of the industrial sector, which will be increasingly electrified as part of the ‘green transition’ and electrification-based sector coupling (i.e. in transport or heavy industry via green hydrogen) which will make electricity the ultimate commodity going forward. Substantiating environmental claims with a sound, reliable and clear methodology that looks at the full lifecycle of the product is crucial for comparing different electricity generation technologies and subsequent energy vectors (such as batteries, hydrogen etc.), allowing us to understand which technologies are the most environmentally sustainable. With this in mind, PVthin supports option 3 to establish an EU legal framework requiring companies making claims related to the impacts covered by the Environmental Footprint methods to substantiate them via the Environmental Footprint methods.

In addition, with the EU’s vision to revolutionise its energy system, and grid infrastructure, we believe it is a good time to establish a common methodology to assess the environmental footprint of electricity generation from different sources. In this vein, the PEFCRs developed for solar PV during the 2013-2018 Pilot clearly demonstrate that the PEF methodology can be applied to the electricity sector and as such could allow for electricity-based ‘green claims’. Furthermore, the embedded environmental footprint of electricity is considered in practically every organisational and product environmental footprint (OEF & PEF), therefore a harmonised definition and methodology to classify green electricity would be most pertinent. This approach could help avoid some issues/inconsistencies for green claims linked to unbundled RECs, or hard to verify Guarantees of Origin (GOs), by using a mandatory PEF-based characterisation for electricity generation technologies across the EU.

To achieve this, clear actions are needed. They should encompass:
1. **Review of current PEFCRs with a view to preparing supplementary PEFCRs for different electricity generation technologies and cross-sectoral energy vectors.** This would allow for a more comprehensive understanding of the environmental impacts associated with different technologies.

2. **Regular revisions and updates of the existing PEFCRs** to ensure that they are in line with the current state of play of these energy technologies – this is particularly relevant to thin-film technologies which are rapidly developing all the time, and have come a long way since the pilot phase e.g. perovskites.

Today, the PEFCR methodology constitutes the most comprehensive toolbox for the LCA of environmental impacts. **This methodology should be leveraged for the development of standards, certifications and labels at all levels,** and is highly relevant to the sustainable product policy, including Ecodesign, Energy Labelling and Green Public Procurement. All of these instruments are currently under development, at different levels, for PV modules, inverters and systems. Looking beyond this, PEF/OEF methodologies should become the benchmark for green certification initiatives, such as ‘green claims’, enhancing EU and global harmonisation.

**PVthin strongly supports the establishment of a legal framework requiring companies making environmental claims to substantiate them through PEFCRs,** and remain committed to this process. PVthin and its members will continue to contribute industry knowledge and expertise to the development of a common methodology.