

PV Recycling

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Abstract

PV modules are now added to the EU's Waste Electrical and Electronic Equipment directive making it law; that manufacturers and suppliers are responsible for their EoL management. This, alongside the amount of rare and precious metals these modules contain, provides added incentive, both environmentally and economically, to recycle these panels.

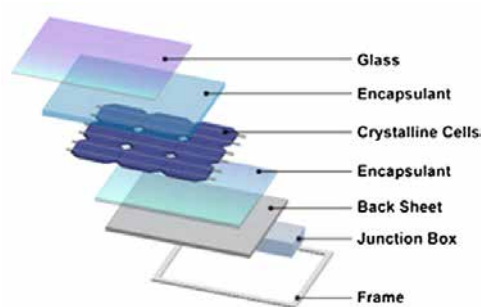


Figure 1: An exploded view of a general first-generation (C-Si) PV module showing all the constituent layers. Reproduced from Dias et al. [1]

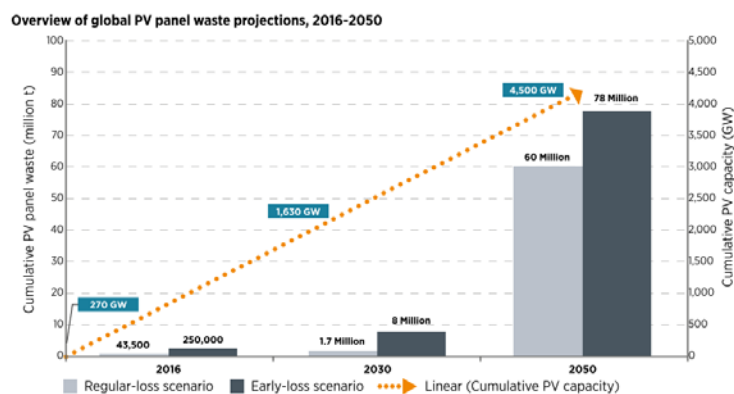


Figure 2: Overview of global PV panel waste predictions, 2016-2050. Reproduced from published IRENA report. [2]

References

1. Dias P, Javimczik S, Benevit M, Veit H (2017) Recycling WEEE: Polymer characterization and pyrolysis study for waste of crystalline silicon photovoltaic modules. Waste Manag 60:716–722 . doi: 10.1016/j.wasman.2016.08.036
2. IRENA I-P End-Of-Life Management: Solar Photovoltaic Panels