



Methodology Guidelines on Life Cycle Assessment of Photovoltaic Electricity – 4th Edition

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July 2020

Scope of the update toward the 4th edition



- Technical characteristics
 - Service life
 - Performance ratio
 - Degradation rate
 - Curtailing and DC:AC ratio
- Building Integrated PV electricity
- Environmental indicators
 - Updated according to the Product Environmental Footprint impact assessment method
- Minor editorial corrections



- Technical characteristics
 - Default performance ratio: 0.75 and 0.8 for residential and utility scale PV systems, respectively
 - Degradation rate: 0.7 %-points per year confirmed
 - Curtailing: environmental impacts of 1 kWh PV electricity may be higher because of curtailing (annual yield lower than under optimal, full utilization of PV electricity production)
- BIPV electricity LCA
 - Functional unit: 1 kWh AC electricity
 - Building specific annual yield
 - Allocation: active elements to be attributed to electricity production
 - (LCA methodology for BIPV building elements and of buildings with BIPV to be elaborated under the lead of PVPS Task 15)
- Environmental indicators
 - Environmental Footprint method, final version
 - Biodiversity loss due to land use: indicator recommended by UN Environment
 - Cumulative Energy Demand (non renewable, renewable)

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