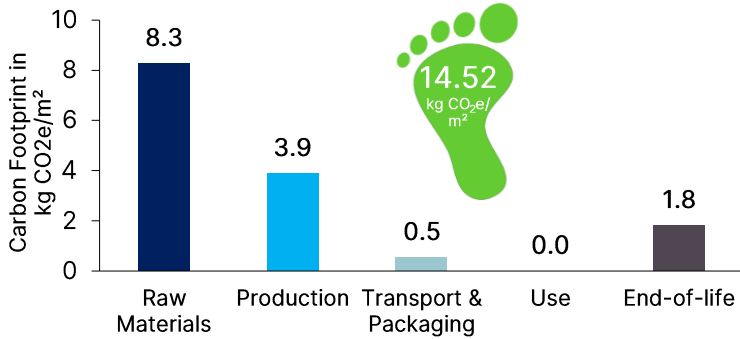




Organic Photovoltaics – Truly Green Energy “Ultra-Low Carbon Footprint”

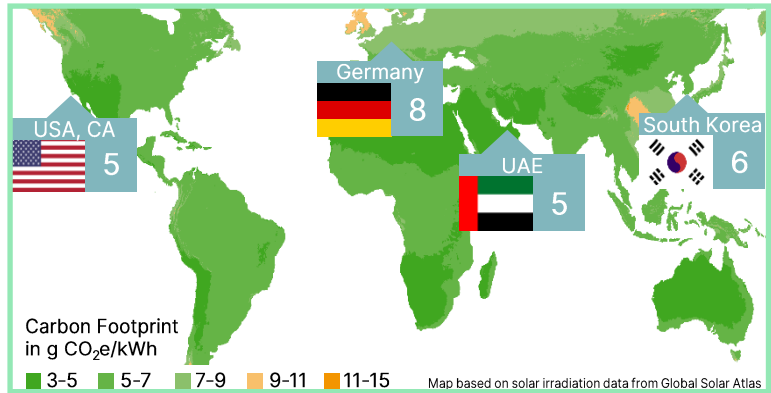
Climate Change – Our Global Challenge

To limit global warming to 2 °C or less, greenhouse gas emissions must be reduced by 40% - 70% by 2050 and reach close to or below zero by 2100 [IPCC, 2014]. Low carbon technologies such as Heliatek’s organic photovoltaics (OPV) will enable this essential transition.



The renowned institution TÜV Rheinland (Germany) has certified the carbon footprint of Heliatek’s organic solar film HeliaSol to be 14.52 kg CO₂e/m². By means of a Life Cycle Assessment (LCA) all environmental impacts were evaluated from acquisition of raw materials over the production and use up to end-of-life treatment including all transportation effects.

The map indicates that the unique solar films have an environmental impact ranging between 3 and 15 g CO₂e/kWh depending on the solar irradiation of the location. This results in an ultra-low carbon footprint for an innovative generation of solar technology that abandons toxic materials such as lead and does not use any scarce raw materials.



Lignite



1.008
g CO₂e/kWh

Gas



409
g CO₂e/kWh

c-Si Solar
(Dresden)



49
g CO₂e/kWh

Hydro



3
g CO₂e/kWh

HeliaSol
(Dresden)



8
g CO₂e/kWh

The LCA outcome confirms that the OPV solar technology from Heliatek is one of the greenest of all energy sources¹. By continuously increasing solar efficiency, Heliatek's OPV will achieve an even better environmental level and prove to be one of the technologies with the lowest carbon footprint. This is a truly green product!

ZERO CARBON TRANSITION

¹ Values from GEMIS 4.95, 2017 and PEFCR v1.1, 2019

[Click here to learn more about our truly green solar films.](#)