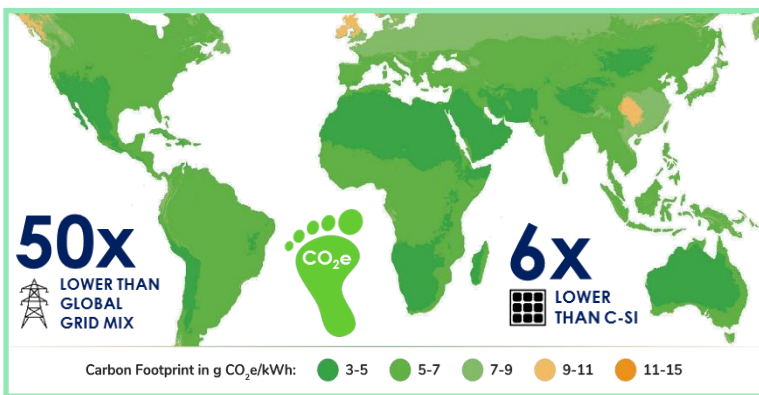




Organic Photovoltaics – Truly Green Energy „Green Key Factors“

What does it mean to be „Green“?

At Heliatek, we continuously strive to deliver the lowest carbon footprint solar solutions. Our organic PV technology uses minimal material input, without the need of scarce resources, to have the least impact on the environment. Our innovative HeliSol solar film is the first realization of our promise, with a TÜV Rheinland certified Life Cycle Assessment that confirms the world’s leading carbon footprint for solar energy, delivering an ultra-short carbon payback time and energy payback time.

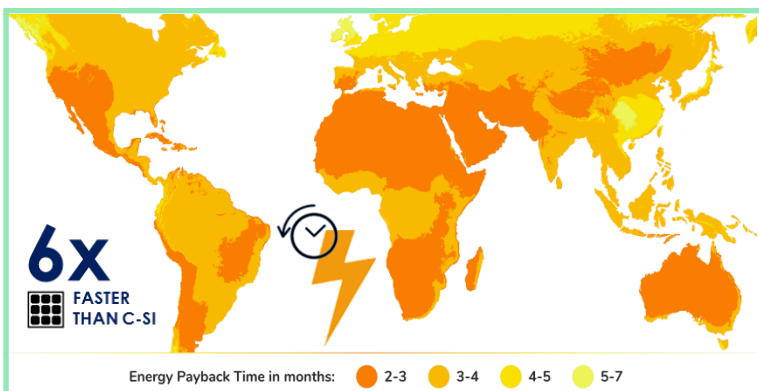
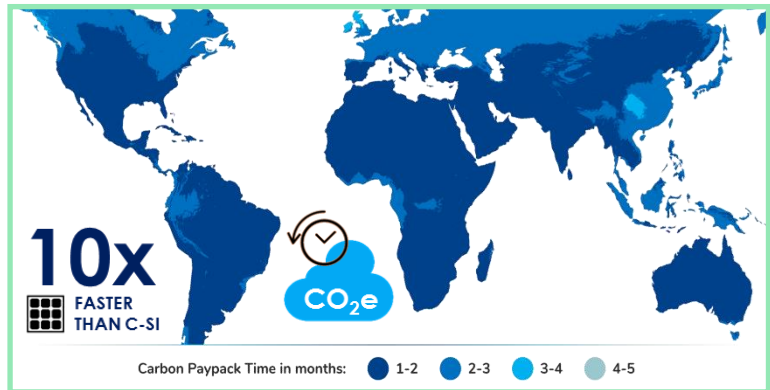


50x Greener than the Global Grid Mix

With an ultra-low carbon footprint of less than 10 g CO₂e/kWh for most global locations, our organic solar films have a 50 times lower carbon footprint than the global grid mix. Compared to silicon based solar modules, HeliSol’s carbon footprint is 6 times lower. This means our truly green solar films emit 80 % less greenhouse gases (CO₂e) per kWh than conventional c-Si modules.

10x Faster towards Zero Carbon Electricity

Heliatek’s organic solar films have a carbon payback time for greenhouse gas emissions of less than 3 months for most global locations. This makes HeliSol 10 times faster a zero-carbon electricity generator than silicon based solar panels. For example, a 10 kWp solar system saves annually 400 kg additional greenhouse gas emissions when using our OPV solar films compared to conventional c-Si modules.



6x Faster Payback of Energy

For the majority of global locations Heliatek’s organic solar films need less than 6 months to pay back the energy required for material supply and production through the use phase up to the end-of-life. This is 6 times faster than the energy payback time for silicon based solar modules. During the 20 years lifetime, HeliSol can generate up to 100 times the original energy input (EROI).

All comparisons are based on:

- Comparison values for c-Si (mono c-Si & multi c-Si) from PEFCR v1.2, 2020 & M.J. de Wild-Scholten, 2013
- Comparison value for grid mix from Internationally Energy Agency (IEA), 2019

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