

Enhanced PV Efficiency via Passive Cooling

PV efficiency gains using advanced materials and heat transfer innovation

- PV panels get hot 65°C (149°F)
- Performance drops of more than 10% are common
- A 200MW peak solar farm at 65°C = 166MW (17% drop)
- ~\$8,300/hour lost

Solution

Graphene composite back structure with advanced thermal design...lower temps $10 - 20^{\circ}\text{C}$ ($18 - 36^{\circ}\text{F}$)

- Low cost
- Low maintenance
- Higher efficiency – fewer panels
- Increases life of panels
- Snow/ice clearing potential
- Complete US supply chain
- Field ready 2 – 4 years

