Solar Earth Inc.

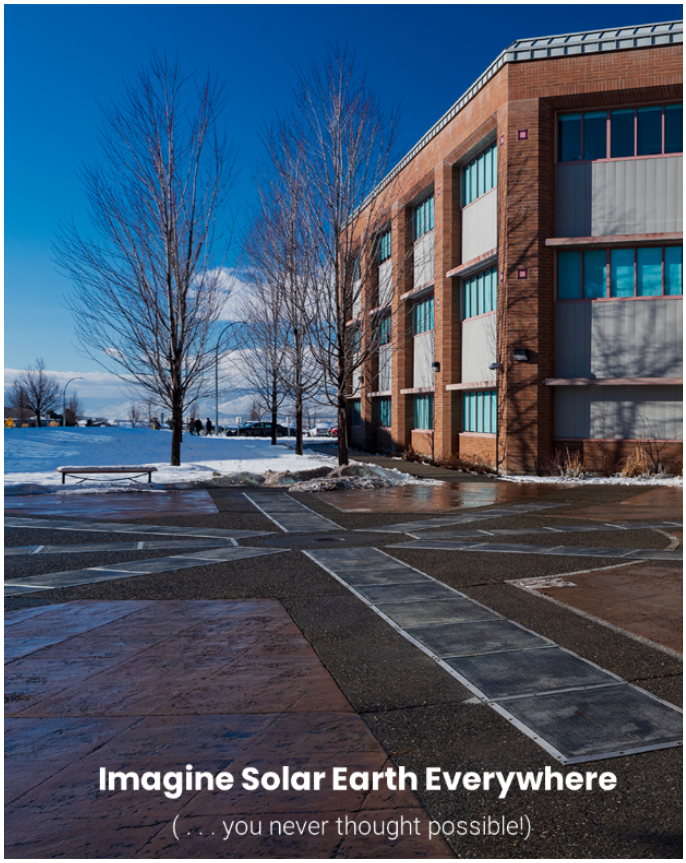
Paving integrated PV systems

Integrated EV Charging

American-Made Solar Prize Round 7

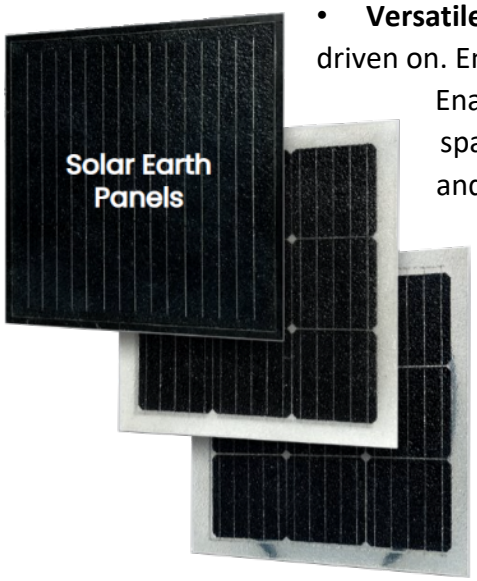
Ready! Contest Submission

Technical Assistance Request



Solar Earth Inc. has developed the world's toughest solar panel solution. Innovative Solar Panel Solutions that are robust, lightweight, and adaptable solar paving panels designed for unconventional locations.

- **Tough**: Able to withstand a weight of 5 tons, ~42x that of a traditional solar module
- **Safe**: Has superior anti-slip surface grip, ~20% higher vs. the typical surrounding pavement and 200% higher than traditional solar
- **Efficient**: Output generation efficiency of 15% in real world applications



- **Versatile**: Solar Earth's panels can be walked on, biked, on or even driven on. Enabling previously unimaginable of solar installation. Enabling renewable energy generation in unconventional spaces, from sidewalks, to roadways to lightweight rooftops and hybrid projects.

Solar Paving Integrated EV Charging

Solar Earth is developing a turnkey solution to integrate it's innovative tough solar panels with charging infrastructure that connects to sidewalks, bike paths, or parking lots.

Challenges

Solar Earth is committed to addressing global energy needs, with a robust solution(s) that integrates with existing infrastructure. Paving integrated PV solutions combined EV/LEV charging stations presents an excellent opportunity to produce clean energy for our transportation needs, making EV/ LEVs end-to-end environmentally positive. To ensure rapid deployment Solar Earth will:

- Optimized integration of Solar Earth tough solar panels with common EV charging infrastructure designed for vehicles and e-mobility transportation.
- Addressing unique environmental challenges for EV/LEV key markets, including wear and maintenance from local electric vehicles or e-mobility traffic
- Innovate improved tough solar panels to support EV/LEV charging needs.

Potential Partners

- **NREL Solar Radiation Research Laboratory** provides comprehensive solar radiation measurements and characterization. This facility utilizes advanced instruments and techniques to accurately measure solar radiation levels, spectral content, and other relevant data.
- **NREL Materials and Component Testing Labs:** These laboratories could potentially be used to evaluate the durability, mechanical properties, and resistance to environmental factors of the materials used in PIPV panels. Tests such as accelerated aging, stress testing, and weathering simulations can provide insights into the long-term performance of these panels.

- **American-Made Network** partners with expertise in battery storage, EV, or e-mobility charging infrastructure, or solar integrators would be ideal partners.