Cable-stayed dual-use dual-axis PV supports

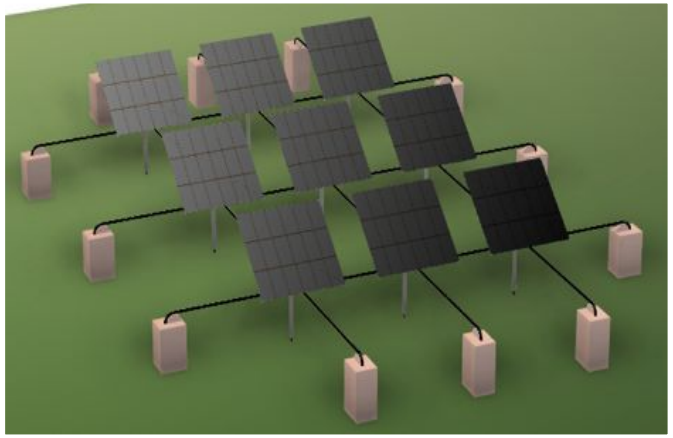
Bridging Earth and Sky with Science and Engineering

Problem

Solar farms consume vast quantities of land and some of best land for PV is farmland – flat, sunny, easy access. But to create dual-use, current solutions are too expensive.

Solution

By using cable-stayed technology (commonly used in suspension bridges or radio towers), RUTE has developed a cost effective method to raise solar panels 10'+ above farming with dual-axis tracking.



SUNFLOWER cable-stayed array, providing dual-axis, high-clearance, scalable solar panel supports.

Team

We are a combination of mechanical engineers, physicists, and solar capable business people with a proven track record of developing sustainable structures for renewable energy.

Plan

With engineering drawings in hand, and using mostly off-the-shelf components; we will gradually pilot a 3x3 50kW array and then slowly scale to a 10x10 500kW array over the course of this contest.

READY!

Today – 3 months

- Design elements complete
- 3x3 test site identified
- Patenting initiated
- Construction contractor ready
- Key suppliers identified
- Partially build out (1-3 poles) for 3x3 array

SET!

Months 4-6

- Build out 3x3 prototype
- Confirm wind loading
- Develop wiring methods
- Optimize building methods
- Explore alternative winch methods
- Finalize controller software
- Begin site visits with developers

GO!

Months 7-9

- Identify key crops
- Select winch methods for 10x10
- Analyze maximum array size
- Finalize deployment methods
- Establish Service and Warranty Contractors

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