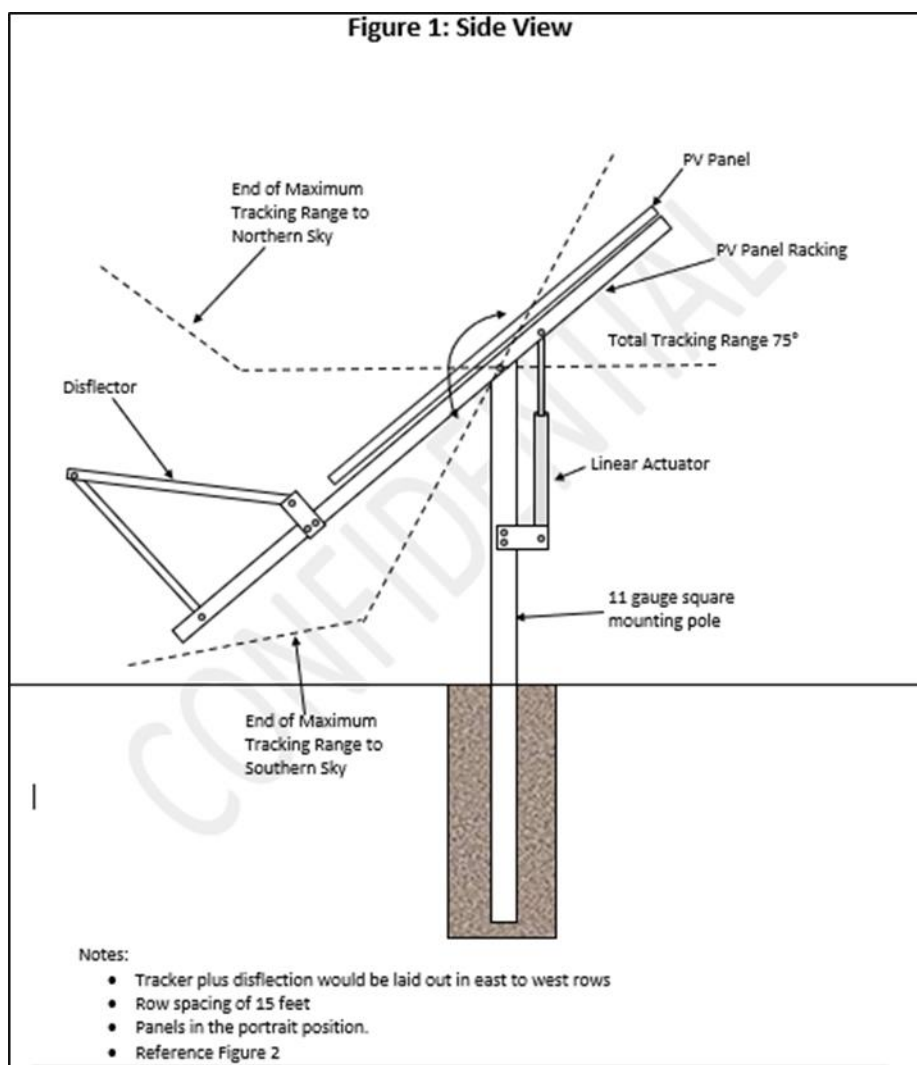


Technical Assistance Request

Brief Description of Product:

“Optically Enhanced Tilt Tracker”

The Optically Enhanced Tilt Tracker (OETT) is intended to provide low cost tracking in higher latitudes of the earth. Disflector are fixed at a predetermined angle to the PV Panel racking of the array. The rack assembly with disflectors track the sun along the horizontal tilt axis. This will provide for maximum illumination of the panels with direct sun rays for the greatest time during daylight hours. The expected economic benefit is an increase of 30 to 50% production compared to a simple fixed tilt rack. The increase in capital cost is projected to be about \$0.10/W to total array cost. The goal is to produce electric energy for \$0.03/kWh based on a levelized cost of energy computation model with a term of 30 years. The premise is a utility scale array with a target installed cost of \$1.20/w.



Testing and Validation

- ❖ Evaluate and analysis the mechanical design, drive system, and control systems of OETT for basic integrity and long term durability.
 - Mechanical Design Analysis of Reflective Solar Tracker structure which includes dynamic (i.e wind/snow) loads and shock.
 - Mechanical load limit test
 - Devise a test method of loading the Reflective Solar Tracker structure to determine reaction and yield limits of the structural members
- ❖ Provide testing and validation on energy claims.

Provide for installation and operation of the OETT in regions or environments of the United States other than the Northeast for the purpose of determining the energy production performance of the OETT. The method of data collection, analysis and conclusions should be devised by the partner. Information should be shared with other partner participants.

Business Development

- ❖ Network partners who can help guide the development of SEMs's according to our product and market goals. This should include:
- ❖ Projection of Sales in the commercial solar market.
- ❖ Development of marketing materials and techniques for commercial market
- ❖ Detailed cost/benefit analysis for the OETT for scale ranging 1Mw to 100Mw installation
- ❖ Evaluate manufacturing costs as a function of volume and how that will impact pricing for the commercial market.

Funding & Investment

A partner who can evaluate the capital needs of SEMs's to sustain the business development of the company for 2 to 5 years as the product enters the market.

SEMS is interested in assistance regards of the outcome of the American Made Solar Prize. If assistance can be provided please contact:

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Or

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