

TECHNICAL ASSISTANCE REQUEST (2 pages, including images, will be made public)

Provide a two-page description of the unique challenges and needs a national lab, private facility, and/or member of the American-Made Network could potentially help you resolve. The Prize Administrator will make this request broadly available so members of the American-Made Network can understand your needs and assist you through the voucher program or otherwise.

Solther Power is one of the competitors of American Made Challenges' Solid Prize 3 Competition that encourages the rapid development of innovative solar energy solutions capable of addressing the tough challenges facing the solar industry.

Our aim is to develop and produce a residential-scale solar thermal power plant system that uses both solar tracking and concentrator systems in generating high temperature steam to produce electricity.

Our concept requires intensive supports from the national laboratories, private facility, and/or member of the American-Made Network for the following:

1. Engineering Design and Calculation
 - 1a. Solar collector panel's heat absorption capacity
 - 1b. Production of direct superheated steam in the solar collector panel
 - 1c. Solar tracking sensor (commercially available or Solther designed)

1d. Solther-designed Impulse Steam Turbine

2. Material selections and acquisitions for the following:
 - solar tracking sensor, Fresnel lens, copper tubing, parabolic trough, flexible high temperature insulated hoses, hose fittings, drive motors, gearbox, panel frame, steam jet nozzle, impulse steam turbine, turbine casing and mounting, coupling, 100W permanent magnet generator, radiator heat exchanger, and transfer pump
3. Fabrication of Solther Panel and Steam Turbine