

American Made Solar Prize – Technical Assistance Letter Speed Albedo by Speed Solar, the Albedo Amplifier

We will need help with the following:

Developing and performing durability and weathering tests:

We want to conduct accelerated weathering tests of the Speed Albedo product to validate longevity and suitability for mass market deployment.

Some test protocols that might be conducted over a 3-6 month period include:

- Subjecting the “Snow White” coated materials to repeated temperature cycling
- Subjecting materials to constant and intense UV light
- Subjecting materials to repeated wet/dry cycling

A potential additional benefit of the accelerated weathering testing with partners at the National Labs could be the creation of a standard test procedure for quantifying the performance of bifacial solar panels. The need for a bifacial testing standard is an issue that has been recognized by both Sandia and the National Renewable Energy Labs.

Possible assistance developing a franchise model for small scale Speed Solar outlets across the country:

For the Ready phase of this contest, we plan to develop a local process and business model for procuring, processing and delivering Speed Albedo using recycled materials. But we envision, in the future, establishing Speed Albedo distribution centers around the country.

To keep our overhead costs low, we anticipate one possibility for growth could be a franchise model of business development. Expert advice on the viability of such a model would save us development time and could jump start the expansion process.

Development of a prototype for our large-scale Speed Albedo product:

We need to find and work with manufacturers who can help us produce the manufactured Speed Albedo with the color, reflectivity and permeability we need to reach our goals. We will need to be able to manufacture enough of the prototype material to perform at least 3 tests to determine:

- Potential costs for large scale use
- Comparison test results for output of bifacial arrays using Speed Albedo versus a variety of other surfaces.