TECHNICAL ASSISTANCE REQUEST

Scalable Manufacturing of Perovskite Solar

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Using a high-throughput (~200 m^2/hour) manufacturing compatible aerosol-jet assisted spray coating (AJSC) technique, AsterSolar aims to overcome perovskite scalability challenges and commercialize the low-cost manufacturing technology.

Partnership with commercial solar manufacturer: As there is no established manufacturing company/facilities (other than start-ups) for perovskite technology, we are looking for partnership from standard solar industry who can guide us towards integration of the existing solar manufacturing process to our technology platform. We want to leverage maximum advantages of the American made solar industry, particularly capabilities of thin-film solar companies in our development cycle. Other than photoactive perovskite and charge transport layers, we anticipate using many standard protocols (e.g., balance of module construction, module scribing, product integration) of the commercial solar industry.

Advice from Industry Veterans: Many of the solar start-ups (e.g., Solyndra, NanoSolar) developing emerging new technologies failed in/around 2010, and some (e.g., MiaSole) were acquired by others. Guidance from industry veterans who had dealt with those affairs will be of great help in developing our technology platform and creating a successful business.

Business Development: As we move forward, we need funds to keep our business alive and grow. We are looking for business development people who have substantial experience in raising cleantech venture capital funds and passion to help entrepreneurs.

National Facilities: For successful execution of our technical roadmap, access to national research facilities like NREL would be highly valuable. NREL offers 3rd party certification of power conversion efficiency to validate our claims. Balance of module construction, reliability testing are some of the areas we need access to the state-of-the art facilities.