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## **Uplift Solar: Embedded, Multi-function MPPT for Smart Solar Modules**

### Technical Assistance Request

Our patent-pending technology allows us to miniaturize and embed maximum power-point tracking (MPPT) while reducing upfront costs.

We would like to issue a request for assistance in the further technical and operations aspects of this project.

Uplift has various benefits that will all need validation. Portions of a module that are partially shaded/covered will contribute some energy, increasing lifetime yields by 4-10% -- comparable or better than the best on the market. The same component provides monitoring data and NEC-required fire-safety features.

National labs would be able to help us to validate our results. The technology is currently in a proof-of-concept stage, but we hope to embed a refined prototype version in a partner product. An objective third-party would be valued by our customers to validate the current-voltage performance and compare the results to competitor products.

National labs would also help us to prepare for and achieve official IEC testing. Uplift has calculated that under production operating conditions, a production device will have a size and heat profile that can withstand grueling IEC tests.

Operationally, the American-Made Network (AMN) can help us to meet our marketing goals. We will need to make connections with solar panel manufacturers. We believe these connections can be facilitated with existing contacts in the AMN and labs.

Uplift also has some specific questions on the certification process for IEC and UL. We would welcome advice from partners within the AMN on both specific questions and general design advice.