



## Next Watt - Technical Assistance Request

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NextWatt (formerly First Watt) is requesting help from the American Made Network and national labs for developing detailed models for solar panel degradation, inverter failure, and lifetime system performance.

As our company launches, we will only have access to a limited set of performance data. Models derived from first-principles theory will be the most useful at this point, and the scientists of the National Labs are world experts in this area. While we have access to academic resources to start this process on our own, working with the NREL experts to validate and improve our models will have a huge impact on the value generated by our platform.

Once our product matures, and we start to collect more meaningful data assets, we plan to move to machine learning-driven empirical models. Any available data sets from the National Labs would accelerate this process. Additionally, guidance on how to best sanitize and normalize our own data streams within the context of photovoltaics would be extremely beneficial. Finally, NREL's deep experience in module characterization will be invaluable for getting baseline data on a variety of products and training our models.

Outside of the software platform, NextWatt also seeks to launch a series of hardware products for data capture. While our team has experience developing reliable hardware, we undoubtedly still have much to learn. Design reviews, access to literature on best practices, and actual testing services are all ways the National Labs and other American Made connectors could help us improve our hardware.

Once our products are ready for larger-scale manufacturing, we will need to conduct accelerated life testing for the thermal and atmospheric conditions experienced as part of a solar installation.

The opportunity to learn from the expertise of the National Labs will be critical to the success of our business, and is a core reason we are pursuing funding through the AMSP rather than traditional venture capital.