## Wattch - Technical Assistance Request

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Wattch is requesting help from the American Made Network and national labs for developing detailed models for solar panel degradation, power electronics failure, and system energy performance.

Wattch now has access to real-time data from over 20 solar installations, which has allowed us to begin training performance models, but we can still vastly benefit from the wealth of knowledge and data from sites around the country.

We are currently planning to work with CFV Labs in Albuquerque, NM, in order to run Accelerated Lifetime Testing of our Data Gateway. This will allow us to prove its robustness in the industrial environments it is designed for, allowing for our customers to install these devices and have the confidence that they will receive their data reliably.

In addition, we are planning to work with Sandia Laboratories in order to validate and certify our models, by doing code reviews as well as comparing outputs of our models using data we gather from Sandia’s Regional Test Centers. Having validated models will allow our customers to feel comfortable being able to use our predictions to inform their business decisions. Any additional opportunities similar to this would also be extremely valuable for our business.

Wattch can benefit from data sets which include direct irradiance measurements as well as weather data, as these metrics are vital for our energy performance models. In addition, any O&M data sets which include logs, causes, and corrective actions alongside performance data will be extremely valuable.

Wattch is also looking for affordable PCBA options in order to batch produce our prototype logger products for larger-scale pilots and implementation. This would alleviate a lot of time spent to populate/bake our PCBs, and would allow us to prove our concept at a much larger scale than we can now.