MAXOUT RENEWABLES

TECHNICAL ASSISTANCE REQUEST

The Maxout Evergrid is an affordable adapter that turns a grid-tied solar installation into a microgrid during a power outage. The Evergrid combines a household version of a 'Synchronous Condenser' with a Li-Ion battery pack and our innovative control system to allow a PV system to run at full capacity during a grid power outage.

The Evergrid innovative design will provide:

- Ensured grid disconnect for safe off-grid operation,
- 60 Hz AC voltage stabilization and load management, allowing a 'grid-tied' inverter to power the microgrid all day long, and
- up to 6.5 kW surge (source or sink) capability for several seconds to handle surge loads and eliminate damaging voltage transients.

Additionally, the Evergrid's small battery pack (300 Wh, upgradable to 5 kWh) can be used for limited nighttime power.



Given the urgency of power outage abatement, and the extreme cost advantages the Evergrid promises compared to traditional solutions, we hope to bring the Evergrid to market within one year and scale production quickly. Technical support that would help us expedite the development of the Evergrid after we win the Go! Contest includes:

Regulatory and Certification Consulting

The Evergrid will need to be certified (e.g., UL 9540, CA Rule 21, NEC 2017, FCC). Consultations with experts in regulatory and certification would help to uncover issues/concerns early, reducing the chance of costly or lengthy delays during the certification process.

Design for Manufacturing Support

It is critical that we conduct a thorough Design for Manufacturing (DFM) analysis before we begin manufacturing our pilot run. Support from an expert with large-scale manufacturing experience would help us scale up quickly and avoid costly redesigns.

Supply Chain Support

We are targeting a very low price for the Evergrid, and supply chain management will be critical. Support finding suppliers and negotiating contracts would help us achieve and maintain our low COGS.

Fundraising and Commercial Partnership Support

Bringing the Evergrid to market will require a modest amount of additional funding (<\$1M), either through external investment or via a partnership with an established company in a relevant field (e.g., an inverter or generator company). Support with crafting our pitch and networking would be helpful.