



**DISCOVER PRODUCTS**

- 20 x AES PROFESSIONAL Batteries

**OTHER PRODUCTS**

- 6 kW of Solar Panels
- 1.6 kW Wind Turbine

**APPLICATION**

Power electronic sensors and scientific measuring equipment

**REQUIREMENT**

Extreme low temperature environment



**OVERVIEW**

**AES PROFESSIONAL LiFePO<sub>4</sub> Battery**

The ICECAPS-MELT project, sponsored by NOAA, is taking place in Greenland. The project measures various conditions related to the surface melt of the ice sheet.

Michael Gallagher, a member of the ICECAPS-MELT research team, contacted NAZ Solar Electric to find a renewable energy power system that could withstand temperatures below -30°C (-22°F) and power a suite of scientific instruments.

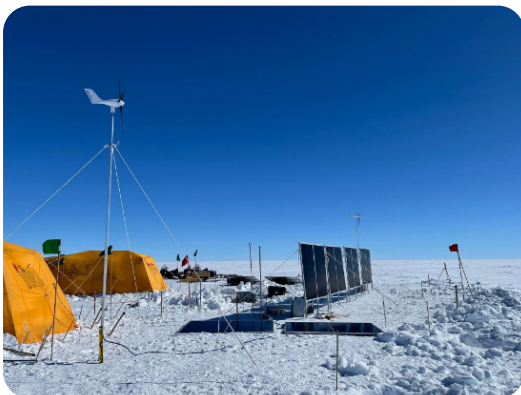
NAZ quickly recommended a system that included Discover Energy System's AES PROFESSIONAL LiFePO<sub>4</sub> batteries with internal heating. Michael Gallagher and his team tested the batteries, requested modifications to the firmware to handle the Arctic extremes, and confirmed acceptance of the AES PROFESSIONAL batteries.

When a team of scientists choose to use your Lithium battery for their Arctic expedition, you know the battery is reliable.





The AES PROFESSIONAL batteries are the energy storage component of the team's (renewable) power system. The system is comprised of solar panels and wind turbines that produce up to 6 kW of solar and 1.6 kW of wind power, which is stored in a 30 kWh battery bank.



Power from the system runs a multitude of sensors and electrical measurement equipment, including the Automatic Surface Flux Station (ASFS), Ground Penetrating Radar (GPR), Micro Rain Radar (MRR), Microwave Radiometer (MWR), Ice Mass Balance (IMB), Open GNSS Research Equipment (OGRE), Portable Optical Particle Spectrometer (POPS), as well as other electronics.

For information about the ICECAPS-MELT scientific research, see <https://www.icecapsmelt.org/>.