**What is SolarSizer?**

The SolarSizer program assists in the planning of small off-grid solar projects by creating a user-friendly dashboard. Based on the input location and load profile, the model returns an equipment list of a solar array capable of meeting the load profile. SolarSizer applies a model designed by GRID yet with additional optimization and simplicity. The project also added documentation for testing and expanding the original code.



**Who is GRID?**

The Global Renewables Infrastructure Development (GRID) is a student organization at University of Washington with the goal of researching and developing renewable energy technologies. The main focus of GRID is to help undersized, climate frontline communities by providing the resources to employ renewable energy techniques with optimal design. Projects are off-grid and small-scale, yet contribute to equitable green solutions to energy demands. For more information on GRID and ongoing projects, check out the official site at **https://sites.uw.edu/grid/**

**How it works?**

The input box can be found at the bottom of this page. After you submit a location and load profile, you can run the program. The software pulls in irradiance data from The National Solar Radiation Database hosted by the National Renewable Energy Laboratory using the Physical Solar Model (PSM) v3. See the next section for detailed instructions on how to get started.

* **Instructions**

To run the program, first find the latitude and longitude in degrees of your desired location within the United States. The location **must** be within the US! You can use Google Maps to find the latitude and longitude of any location.

Next, upload your load profile by clicking the box labelled “Upload Load Profile”. Your load profile must be in csv format. We have provided a template of a load profile within the data directory in the SolarSizer github: https://github.com/UW-Solar-GRID/SolarSizer/blob/main/doc/load\_profile\_template.csv. You can refer to the load profile example within the data directory on how to fill out the template

Once you have input your location and uploaded a load profile, press the RUN button to start the program. The solar array produced by the model will be displayed on the right. This contains the uptime percentage for each array specification.