

Project Bazaar Day #1

Team member & project (re)introductions

A tool that utilizes building energy consumption metrics and solar intensity data to calculate accurate ROIs on solar power generation. This tool will allow customers to see how different photovoltaic (PV) systems match up to their requirements, so they can make informed decisions. This tool could also utilize this data, once installed, to ensure that the solar power generation is meeting standards, and if not, alert the customer of an issue such as snow blockages, cracks, etc. There could also be an extension into other Greenwave business domains, such as power storage sizing for cloudy days and the night time.

Roles/Responsibilities

Tristan - data representation, meeting coordinator, server/web management, back-end design

Karlee - documentation, GitHub/wiki management, front-end design, meeting minutes

Kaden - data processing/management, vlog editor, back-end design

Scrum dates

Dec. 6, 2021 - Jan. 25, 2022

Status description

Project Status - Green

We feel like we are “on track”. We have a working web page that overlays solar generation predictions based on our solar model and building consumption data.

Team Member Contributions

Tristan - Set up map input for location, Set up .csv input functionality, Change ApexCharts to HighCharts

Karlee - Gantt Chart, Add additional inputs, Change date input to use picker, Add input tooltips, Work on cleaning up code, Meeting minutes

Kaden - Power estimation model and calculations improvements (Python Script)

Group - Met with Greenwave Innovations, Met with Dr. Yow

Project issues/changes

- No major issues or changes with our project

Documentation overview and/or project demo

- Webpage demo

Inputs


Summary

Select a Location

Latitude

Longitude

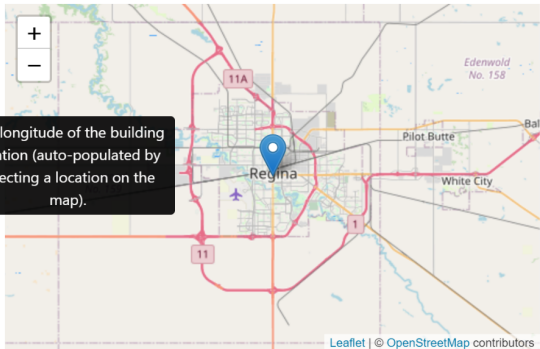
Time Zone

 Choose consumption .csv files

+

-

The longitude of the building location (auto-populated by selecting a location on the map).



Panel Direction

Module Tilt
30

Module Area

Module Efficiency

Loss Coefficient

Next up

Overview of next several weeks: ROI calculations, Optimization suggestions, More graphs and calculation data

Tristan - ROI calculations, Summary page graphs

Karlee - UI improvements, Summary page calculations, Add error handling, Meeting minutes

Kaden - Improve power estimation model, Summary page calculations

Group - Meet with Greenwave Innovations, Meet with Dr. Yow, Vlog 4

Team reflection

Discuss:

- Does the team feel "on track"? (reiterate the above colour status)
 - Green status
 - Yes, we feel like we are “on track”
- What progress does the team particularly feel good (great) about?
 - Accepting .csv consumption file and overlaying that data with solar generation
 - Map input for location
- What barriers (if any) does the team feel are a current impediment to success?
 - Slow API could become a problem
- What help (if any) does the team require to move positively forward?
 - None
- What questions or concerns does the team have (if any)?
 - No questions at this time