

Team Name: sdmay21-46

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Report Period: Oct 12-Oct 18

### Summary of Progress in this Period

- Applied for funding through The Center for Grid Engineering Education
- Completed Design Document v1
- Gathered environmental data
- Researched various types of simulation software
- Chose Matlab as main simulation software
- Chose SAM as a financial analysis tool
- Compiled wind and solar data into daily and monthly averages
- Explored functionality of Enphase Envoy
- Began explorations of Simscape hydrogen simulation

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### Pending Issues

- Initializing data collection from the crate using the Enphase Envoy
- Learning curve of Simulink

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### Plans for Upcoming Reporting Period

- Begin design of electrolyzer and hydrogen fuel cell
  - Begin design of solar panel system
  - Begin design of wind turbine system
  - Begin design of lithium ion battery system
  - Begin design of inverter
  - Perform economic analysis on components
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