sdmay23-36: Making microgrids plug and play

Week 6 Report October 28 - November 4

Team Members

Andrew Frank — API Reserach and Developer Austin Thoreson — Systems Designer Christian Pinta — API Research / Developer Ben Eder — Software Developer Saketh Jonnadula — Software Developer

Summary of Progress this Report

Succesfully moved the microgrid pallets into a Coover lab space and re-attached all cables. Made communication with inverter through Sunspec command and decided on a network design topology moving forward. Established some basic TMS to sunspec data translations.

Pending Issues

No current design for the user interface and display. We need a lot more information on inverter configuration before we can start automating this step.

Plans for Upcoming Reporting Period

Plans to further research inverter configuration for different basic situations and test communications with the inverter. Create preliminary design for the user interface and obtain a network switch.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Andrew Frank	Created diagrams describing different network topologies to arrive at a design decision. Mapped some TMS functions to sunspec data.	4	0
Austin Thoreson	Initial setup of microgrids in new location. Setting up batteries, configuation of MATE 3. Researching possible hardware solutions for controlling raspberry pi.	3	
Christian Pinta	Mapped TMS functions to SunSpec values. Successfully connected to the inverter throught the AXS port.	6	0
Ben Eder	read TMS standard documentation, looked over APIS/ options for user display and inputs, and researched pySunSpec and Tactical	3	

	Microgrid Standard		
Saketh Jonnadula	read TMS document thing, researched on the SunSpec stuff and looked at our options for the user display	3	

Gitlab Activity Summary Nothing to report.