

EE/CprE/SE 492 Bi-WEEKLY REPORT 1

1/13/2026-1/26/2020

Group number: 57

Project title: Impact of High Photo-Voltaic Penetration on Distribution Systems

Client &/Advisor: Dr. Venkataramana Ajarapu

Team Members/Role: Andrew Chaney – Team Leader

Kenneth Prell – Project Engineer

Daniel Riley – Assistant Project Engineer/Editor

Thomas Coleman – Assistant Project Engineer/Document Architect

BiWeekly Summary

During this time period we reconvened after the holidays to refamiliarize ourselves with the progress of the project and update our timeline for the coming semester in order to finish the project by week 13 of the semester.

Past biweek accomplishments

- Continued working on the 34-node network. Specifically, we began integrating PV into the network to determine performance improvement.

Pending issues

- Make contact with Alliant Energy. Obtain their network specifications and start work on simulation and design
- OpenDSS is not installed on the university computers. This disallows us from being able to run OpenDSS through MATLAB as we intended. Not being able to do this prevents us from writing a script to automate the incremental addition of PV to our various simulations, significantly increasing the time required for analysis.

Individual contributions

<u>Name</u>	<u>Individual Contributions</u>	<u>Hours this Session</u>	<u>Hours cumulative</u>
Daniel	Faculty meeting preparation, Project refamiliarization, Admin	8	82.5
Andrew	Faculty meeting preparation, OpenDSS	8	86
Kenneth	Faculty meeting preparation, OpenDSS	8	84
Thomas	Faculty meeting preparation, OpenDSS, Admin	8	83

Plans for the upcoming week

- Discuss with ETG our issue with OpenDSS not being installed on university systems. Our intent is to have them install this program on a few computers in the senior design lab so that we may move forward with our automation script of network analysis.
- Meet with our advisor (Dr. Ajjarapu) to determine our path forward for future networks (Alliant or synthetic) once we wrap up our work on the 34-node network.

Summary of weekly advisor meeting

- We have not met with our advisor as of the start of this semester. Our plan is to meet with him this biweekly period to discuss the plans to make contact with Alliant Energy or work on a different network to obtain similar research accomplishments for how to install PV in these systems.