

Group number: May1728

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

Client &/Advisor: Alliant Energy/ Dr. Ajarapu

Team Members/Role: Nat Summitt/Team Leader, Sam Searls/Team Webmaster, Wyatt Lauer/Communications, Mark Szkodyn and Abdul Waasay Mirza/New Developments

o Weekly Summary (Short summary about what you did this week)

Met with Dr. Ajarapu's graduate student Ankit on Wednesday, September 21. During the meeting the following items were discussed and agreed to have the following completed by our next meeting time, Wednesday, September 28:

1. Each person is to complete IEEE 4-bus hand calculation problem.
2. Each person is to understand how to run OpenDSS with the code given to us by the graduate TA, as well as plot the voltage profile of the results.

o Past week accomplishments (please describe as what was done, by whom, when)

- Wyatt Lauer: Completed three iterations of the 4-bus hand calculation problem and worked in OpenDSS to understand how to run the code and plot the voltage profile.
- Nat Summitt: Completed three iterations of the 4-bus hand calculation problem and worked in OpenDSS to understand how to run the code and plot the voltage profile.
- Sam Searls: Completed three iterations of the 4-bus hand calculation problem and worked in OpenDSS to understand how to run the code and plot the voltage profile.
- Mark Szkodyn: Completed three iterations of the 4-bus hand calculation problem and worked in OpenDSS to understand how to run the code and plot the voltage profile.
- Abdul Waasay Mirza: Completed three iterations of the 4-bus hand calculation problem and worked in OpenDSS to understand how to run the code and plot the voltage profile.

o Pending issues (if applicable)

- None at this time

o Individual contributions

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Mark Szkodyn	Running OpenDSS, completed hand calculation, and worked with group on weekly report	4	8
Sam Searls	Running OpenDSS, completed hand calculation, and worked with group on weekly report	4	8
Abdul Waasay Mirza	Running OpenDSS, completed hand calculation, and worked with group on weekly report	4	8
Wyatt Lauer	Running OpenDSS, completed hand calculation, and worked with group on weekly report	4	8
Nat Summitt	Running OpenDSS, isolated discrepancies between dss files, completed hand calculation, and worked with group on weekly report	6	12

o Comments and extended discussion

o Plan for coming week (please describe as what, who, when)

- Abdul Waasay Mirza: Finish 4 bus hand calculation problem and meet with Dr. Ajjarapu on Wednesday, September 28 at 4 pm.
- Nat Summitt: Finish hand calculation problem and meet with Dr. Ajjarapu on Wednesday, September 28 at 4 pm.
- Sam Searls: Finish hand calculation problem with group and meet with Dr. Ajjarapu on Wednesday, September 28 at 4 pm.
- Wyatt Lauer: Finish hand calculation problem with group and meet with Dr. Ajjarapu on Wednesday, September 28 at 4 pm.
- Mark Szkodyn: Finish hand calculation problem with group and meet with Dr. Ajjarapu on Wednesday, September 28 at 4 pm.

o Summary of weekly advisor meeting (if applicable/optional)

Talked about hand calculation problem, decided for everyone to do two to three iterations on their own and also decided for everyone to learn how to run the code given to us in OpenDSS.