
EE 491 WEEKLY REPORT 6

Date: 10/11/16-10/17/16

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

(All the above information should be there in each weekly report. The format/color scheme etc need not be the same.)

- **Weekly Summary (Short summary about what you did this week)**
- Our tasks for last week were to work on the project plan and compare the time series load profiles of five different months as well as finding bus violations in the simulations. During our meeting this week with Dr. Ajarapu, and the TA, the following items were discussed:
 1. We will be preparing a presentation for them for our next meeting showing our understanding of voltage regulators, our findings on bus violations from the time series load plots, and overlapping plots for the five months to compare the results.
 2. We will need to do some research on voltage regulators for next week.
 3. We began to talk about our potential trip to Washinton, IA to tour the power plant.
- **Past week accomplishments (please describe as what was done, by whom, when)**
 - Nat Summitt: Researched voltage regulators, compiled excel data for the time series load profile plots, met with group to discuss the project plan and time series load profiles.
 - Wyatt Lauer: Researched voltage regulators, completed sections 3 and 4 of the project plan document, met with group to discuss the project plan and time series load profiles.
 - Sam Searls: Started the website, researched voltage regulators, completed sections 1 and 2 of the project plan document, met with group to discuss the project plan and time series load profiles.

- Mark Szkody: Researched voltage regulators, completed sections 5, 6, and 7 of the project plan document, met with group to discuss the project plan and time series load profiles.
- Abdul Wassay Mirza: Researched voltage regulators, went over and edited and formatted the project plan document, met with group to discuss the project plan and time series load profiles.

○ **Pending issues (if applicable)**

- None at this time

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Nat Summitt	Timeseries plots, compiled excel data for plots, researched voltage regulators	5	23
Wyatt Lauer	Sections 3&4 on the project plan, researched voltage regulators	4	18
Sam Searls	Started the website, sections 1&2 on the project plan, researched voltage regulators	4	17
Mark Szkody	Sections 5,6&7 on the project plan, researched voltage regulators	4	17
Abdul Waasay Mirza	Edited and formatted project plan, researched voltage regulators	3	17

○ **Comments and extended discussion**

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

- Nat Summitt: Meeting, and presenting to Dr. Ajarapu our plots from the 34 bus time series load profile, bus violations, and voltage regulators on Wednesday. Submit the first draft of the project plan. Start looking into the design document. Start on the next task assigned by our advisor.

- Wyatt Lauer: Meeting, and presenting to Dr. Ajarapu our plots from the 34 bus time series load profile, bus violations, and voltage regulators on Wednesday. Submit the first draft of the project plan. Start looking into the design document. Start on the next task assigned by our advisor.
 - Sam Searls: Meeting, and presenting to Dr. Ajarapu our plots from the 34 bus time series load profile, bus violations, and voltage regulators on Wednesday. Submit the first draft of the project plan. Start looking into the design document. Start on the next task assigned by our advisor. Continue working on the website.
 - Mark Szkodyn: Meeting, and presenting to Dr. Ajarapu our plots from the 34 bus time series load profile, bus violations, and voltage regulators on Wednesday. Submit the first draft of the project plan. Start looking into the design document. Start on the next task assigned by our advisor.
 - Abdul Wassay Mirza: Meeting, and presenting to Dr. Ajarapu our plots from the 34 bus time series load profile, bus violations, and voltage regulators on Wednesday. Submit the first draft of the project plan. Start looking into the design document. Start on the next task assigned by our advisor.
- **Summary of weekly advisor meeting (if applicable/optional)**
We discussed the project plan briefly, presented our load profile plots for the four scenarios from the previous week, planned the presentation for this week about voltage regulators and our time series load profile plots, and briefly talked about the trip to Washington, IA to tour the power plant.