EE 492 Weekly Report 8   10/16/16

Group number: DEC1614
Project Title: Impact of High Photo-Voltaic Penetration on Distribution Systems
Client & Advisor: Iowa State University & Alliant Energy & Venkataramana Ajjarapu
Team Members/Role:
                 Logan Heinen /Team Leader
                 Difeng Liu/Team Webmaster
                 Zhengyu Wang /Team Communication Leader
                 Redouane Zaou /Key Concept Holders

Weekly Summary

       After one week work on the original system with corrected settings, we have the new output reorganized and ready to be presented. However, we still cannot have our data 100% match up with client information, and we are still looking for reasons. On the other hand, we have basic understanding about why the load shapes of Washington area looks like the plots and how residents live and use power. The question list is almost done, and we are ready to call our client for the coming conference call.

Past week accomplishments

1. Listing our considered reasons why data cannot match up with each other
2. Tap changes and output analysis
3. Made up 5 different load shapes for the coming team
4. List all the questions and finish draft email
5. Output analysis of 10 nodes from our selections

Pending issues

❖ Conference call with client
❖ Solar PV system study
❖ Compare the new coming system from client with the old one

Individual Contributions

NAME	Individual Contributions	Hours this week	HOURS cumulative
Logan Heinen	Meeting with advisor, Group meeting, Communication with client, Database research and debugging;	4	29

Difeng Liu	Meeting with advisor, Group meeting, Database research;	3	24
Zhengyu Wang	Meeting with advisor, Group meeting, Database research and help list questions, Weekly report;	4	27
Redouane Zaou	Meeting with advisor, Database analysis and help list questions.	3	24

Comments and Extended Discussion
Communication with our client became the most important thing for the passing week. We made a list of our questions very carefully because we want covers everything with short and clear sentence. Besides, we also talked with Prof. Ajjarapu about our question list for improving the conference call quality. With the selected nodes analysis, we have a better understanding of the voltage profile and load shapes of Washington area now. And we will try to located all the nodes selected by client again and monitor them.

Plan for Coming Week
The big deal for the coming week is the conference call with our client. In order to ensure the quality and effects, we must keep our questions effective and valuable. Otherwise, we will not get help via conference call. The main problem we have now is still with the system. We believe that our client will be able to help us generate a complete system on OpenDSS so that we can increase the accuracies of our output.

Summary of Weekly Advisor Meeting
Prof. Ajjarapu double checked our questions list and pointed out some questions should be shortened. Additionally, he required us to cover our own found about the selected 10 nodes including data output and plots. About the debugging, Prof. Ajjarapu mentioned about the importance of keep the default settings again and required us to check on OpenDSS again.