

EE 492 WEEKLY REPORT # 6

4/2/2020 – 4/16/2020

Group number: Sdmay20-14

Project title: 115kV /34.5kV Solar Power Plant & Substation Design Project

Client &/Advisor: Black and Veatch / Venkataramana Ajarapu

Team Members/Role: (Roles are rotated on an as needed basis) Jake Ciccola (Scribe / Client communications), Ethan Curnutte (Chief engineer), Ada Lupa (Test engineer & Website Developer), Blake Danek (Meeting facilitator), Michael Lortz (Design engineer), Bashir Mohamed (Test engineer)

Weekly Summary: This week, our group primarily worked on completing various calculations for our client. We had to complete grounding calculations and bus calculations. Once we completed these calculations, we had to put them in a report format that explained the calculations step by step.

Past Week Accomplishments: As a group we worked on:

- **Member 1: Jake Ciccola**
 - Created Agenda and Meeting minutes
 - Created grounding calculation report
- **Member 2: Ethan Curnutte**
 - Worked on bus calculations and changed variables according to client
 - Worked on bus report
 - Researched DC calculations
- **Member 3: Blake Danek**
 - Worked on and finalized bus calculations report
 - Started working on grounding calculations
 - Created grounding calculations report
- **Member 4: Ada Lupa**
 - Worked on the grounding report
 - Worked on bus calculations and the bus report
- **Member 5: Michael Lortz**
 - Implemented relay circuit into drawings according to B&V specs
- **Member 6: Bashir Mohamed**
 - Calculated the total forces acting on the substation.

- Worked on finalizing grounding report

Pending Issues: We had trouble working on assignments together, but we used zoom to create an online meeting and get tasks done.

Individual Contributions:

Team Member	Contribution	Weekly Hours	Total Hours
Ethan Curnutte	This week was spent on working on the bus calculations and then mainly on research for our next deliverable, the DC calculations for the substation	6.5	55
Ada Lupa	Finished grounding calculations and the grounding report. Helped with the bus calculations by finding the qs, qr, qc, etc.... Uploaded weekly report onto the website	7	55
Jake Ciccola	This week I updated some values from the grounding and bus calculations, and helped create them into reports for the client.	6	54.5
Blake Danek	Finished grounding calculations and grounding calculations report. Calculated maximum allowable span and helped with the ampacity for bus calculations.	8	56
Michael Lortz	Drafted grounding grid for use with grounding calculations	6	54
Bashir Mohamed	I calculated total forces acting on the substation which includes the gravitational, wind and fault current forces.	6	53

Plans For The Upcoming Week:

- **Member 1: Jake Ciccola**
 - Create meeting agenda and minutes
 - Finish bus calculation report
 - Start battery calculations and report

- **Member 2: Ethan Curnutte**
 - Final presentation work as well as report and poster
 - Finish DC calculations for client
- **Member 3: Blake Danek**
 - Begin working on final presentation, report, and poster. Finish up bus calculations and bus calculations report. Make small revisions to grounding calculations reports.
- **Member 4: Ada Lupa**
 - Finish the bus calculation report
 - Start on the final report
 - Make any necessary changes
- **Member 5: Michael Lortz**
 - Assist with the final report
 - Make sure that all drawings are fully completed
- **Member 6: Bashir Mohamed**
 - Start working on deliverables.
 - Work on dc calculations.
 - Incorporate any modifications from the client.