

PROJECT:	115 kV/34.5 kV Solar Power Plant/Substation Design Project
CLIENT:	Black and Veatch Corporation
CLIENT CONTACT:	Adam Literski
ADVISORS:	Venkataramana Ajjarapu, Anne Kimber
TEAM EMAIL:	may1602@iastate.edu

CHASE BENTON:	Team Leader
SENKO DIZDAREVIC:	Team Communication Leader
ARIF IBRAHIM:	Team Webmaster
MAKOKO MUKUMBILWA:	Key Concept Holder

ACOMPLISHMENTS

We started the three-line drawings of the substation. The three-line drawings are detailed circuit diagrams of all protection relay, lighting and miscellaneous power and layout. The one-line collector, feeder and key protection are complete.

MEETING NOTES

Client Meeting 11/18/2015 3:00-4:00pm

The goal of this meeting was to explain the key protection substation drawing to Adam Literski and Rahul Ramanan. Although the run through went well, we did have some fault in our logic of the workings such as the capacitor bank. This was cleared up during the meeting.

Dr. Ajjarapu Meeting 11/20/2015 1:30-2:00pm

We ran Dr. Ajjarapu through our one-line substation drawings, focusing on key protection. Our main goal was to fill him in on our progress since last meeting, two weeks ago. The most important subject of discussion was presentation of our project. Dr. Ajjarapu laid out the expectations for us, emphasizing the use of simplified block diagrams and building the complexities from there. Also, we need to figure out how the entire system will be tested, we will certainly be asked about this. Before the presentation we will figure out how the system can be tested.

PENDING ISSUES

- Overall system testing.
- Three-line diagram complexities will be tough to manage.

WEEK SUMMARY

This week was a finalization week for substation one-line drawings including collector, feeder and key protection. We began work on three-line diagrams, beginning with the yard ac power.

GOAL FOR NEXT WEEK

- Begin engineering man hour budget.
- Continue three-line drawings.

INDIVIDUAL CONTRIBUTIONS

Chase Benton:

- Key protection completion.
- Three-line drawing configuration.
- Equipment & key protection research.
- Attended meetings.

Senko Dizdarevic:

- Completed weekly reports.
- System block diagram.
- Design document V2 begin.
- Attended client meeting.

Arif Ibrahim:

- Array layout revisions.
- Key protection completion.
- Website revision.
- Attended meetings.

Makoko Mukumbilwa:

- Array layout revisions.
- Attended client meeting.

HOURLY CONTRIBUTIONS

Team Time Contribution Week 12 (hours)		
Member	Week Contribution	Individual Cumulative
Chase Benton	10.0	64.0
Senko Dizdarevic	5.5	78.0
Arif Ibrahim	10.0	76.5
Makoko Mukumbilwa	6.0	32.5
Team Week Total	31.5	
Team Cumulative Total	251.0	