

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

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

ACOMPLISHMENTS

We finally made contact with Dr. Anne Kimber, we will have a scheduled appointment with her this coming Monday.

We further studied the feasibility of any solar power generation in Iowa, coming to the conclusion that this is not the ideal state to be doing such a thing. Reasons behind this conclusion are as follows; low average sunlight, land is more efficiently used for farming, the political aspect of Eminent Domain use, and high cost of land. According to our research, an 80 MW solar plant would require at least an acre of land. The cost of this much land could cost in the millions if we intend to put it close to the load. We'll bring that up at our next client meeting, it is unlikely what it will matter whether it is feasible.

MEETING NOTES

Dr. Ajarapu Meeting 09/16/2015 3:00-3:30pm

We discussed feasibility of a solar power plant in Iowa with Dr. Ajarapu, digging deeply into the amount of land we would need to provide 80 MW to a load. The professor instructed us to arrange a meeting with the on campus utility department to get an idea of the campus power usage. Together with the professor we planned to use the campus as a model customer due to the possibility of obtaining kW demand information.

Additionally, Dr. Ajarapu instructed us to continue our research into substation design. He provided us valuable online sources to find reliable documents. This source is the National Labs DOE.

Dr. Kimber Meeting 09/16/2015 3:35-3:45pm

We have successfully made contact with Dr. Anne Kimber, briefly discussed solar power applications and a possible substation tour. We will have a meeting with Dr. Kimber this coming Monday at 2:10pm.

PENDING ISSUES

Our issues this week is beginning a project plan and the uncertainty of solar power in Iowa.

WEEK SUMMARY

Concluded meetings and continued research, our most time consuming endeavor. Discussed feasibility of solar power generation in Iowa.

GOAL FOR NEXT WEEK

- Establish a location for a solar power plant/substation in Iowa regardless of cost.
- Continue research on solar/substation design.
- Bring up issues to client at conference call.
- Begin developing project plan.
- Coordinate a meeting with ISU on campus utility department.

INDIVIDUAL CONTRIBUTIONS

Chase Benton:

- Established meeting with Dr. Kimber.
- Coordinate solar power plant/substation research topic to team, including self.

Senko Dizdarevic:

- Completed weekly report and time contribution.
- Research.

Arif Ibrahim:

- Research.

Makoko Mukumbilwa:

- Research.

HOURLY CONTRIBUTIONS

Team Time Contribution Week 3 (hours)		
Member	Week Contribution	Individual Cumulative
Chase Benton	2.0	6.0
Senko Dizdarevic	2.5	7.5
Arif Ibrahim	2.0	4.5
Makoko Mukumbilwa	2.0	4.5
Team Week Total	8.5	
Team Cumulative Total	22.5	