

EE 491 Weekly Report 1

08/26/2024 to 09/19/2024

Team 41

115/34.5kV Solar Plant & Substation

Client: Black & Veatch

Faculty Advisor: Ajjarapu Venkataramana

Team Members:

Andrew Chizek

David Ntako

Ben Palkovic

Mohamed Sam

Sergio Sanchez Gomez

Dallas Wittenburg

Past Week Accomplishments

- Weekly Presentation – All
 - Ben – Created the weekly safety moment and gathered combiner box data sheets to be compared during the presentation
 - Dallas – Created the weekly new technology moment. Conducted research on bifacial solar panels and reported the benefits and drawbacks of bifacial technology
- Software for Project – Ben
 - Started collaborating with the ETG to get access to ETAP for when we need to do simulations
 - Black & Veatch has asked us to get familiar with Microsoft Access, so I have found resources on LinkedIn Learning and the Microsoft forum to help us learn how to use it.

Pending Issues

- Waiting for response from the ETG about ETAP

Individual Contributions

Name	Contribution	Hours this Week	Total Hours
Andrew	Researched solar inverters and contributed to the PowerPoint	3	3
David	Did some research on some Key components that we need for our project, and also got a big picture of a solar field overview.	3	3
Ben	Started collaboration with ETG to get access to ETAP. Researched combiner boxes and contributed to power point.	3	3
Mohamed	Researched about combiner boxes and contributed to the power point and got access to AutoCAD.	3	3
Sergio	Gantt chart , researched solar panels and contributed to the PowerPoint.	4	4
Dallas	Researched bifacial solar panels and their benefits/drawbacks , contributed to the PowerPoint	3	3

Plans for Coming Week

- Action Items for Client
 - Work with Array Parameter Tool
 - Compare Solar Sites
 - Decide on a location
 - Research about the I-V curve of a Photovoltaic system.
 - Research land to “buy” in Ames and in New Mexico