

EE 492: Weekly Report 2

February 4, 2019 – February 10, 2019

sdmay19-24:

Power System Reliability in MISO for High Wind/Solar Levels

Team:

Zaran Claes, Shelby Pickering, Matt Huebsch, Shannon Foley,
David Ticknor, Ian Rostkowski

Advisor:

Dr. James McCalley

Client:

Midcontinent Independent System Operator (MISO)

Accomplishments this week

Task:	Group members who contributed:	How they contributed:
Create plan of action document	Shelby Ian	Shelby and Ian both have a solid understanding of the goals of this project and what the timeline might/should look like. They created a schedule for the team's plan of action for the remaining of the semester. This is a detailed document of the goals we are trying to achieve and a timeline for how to achieve them, per Dr. McCalley's request.
Get licenses renewed	David	David is the team contact, so has been interacting with Energy Exemplar to try to get the team's PLEXOS license renewed ASAP.
Evaluate generation from the queue to incorporate into siting capacity	Shannon	Shannon looked at the active queue, pulling out any outliers, and took the average generation.
Determine split between the three types of solar (rooftop, tracking, fixed)	Zar	Zar researched how the team may want to split up the solar types for building the models. He documented his research to support our process.
Scaled the model to 2017	Zar	Zar, having the most PLEXOS experience began to scale the current model to 2017 loads.
Linked PLEXOS region to our siting document	David	Went through master siting excel sheet and linked each bus with the appropriate region given by MISO

Pending Issues

The PLEXOS license has expired. The team is currently in contact with Alyssa at Energy Exemplar and have requested a new license from them and are awaiting their evaluation of the team's work for a renewal of the license. There was a follow up email sent to Energy Exemplar and the team is still awaiting a response from them.

Additionally, the team needs to review the documents given by MISO and figure out bus mappings and settings for PLEXOS.

Plans for next week

Finish and present the “Plan of Action” document to MISO and Dr. McCalley. This document will be updated as we go through the semester.

Get the PLEXOS license and adjust all the settings and bus mappings in PLEXOS, creating the base case to the team is ready for the MISO workshop next Saturday.

Work on the sample model and hand calculations for Armando’s demo.