

EE 492: Weekly Report 10

April 8th – April 14th

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:
Fixed Solar and Wind generation profiles	Shannon, Matt, David	Each member listed worked on a new process for creating generation profiles for PLEXOS input, after the team noticed an error in the profiles
Finished creating the 50/50 and 75/25 model based on the new parameters and information we have been given in the last week	Shannon	Shannon integrated the new generation profiles into the PLEXOS model and made sure it was running properly.
Preparation for MISO visit and presentation	Team	The team will be visiting MISO in just over a week and have been asked to prepare a presentation. The team has made good progress.
Start running 75/25 ELCC calculations.	Matt	Started running the 30, 50, and 100 percent penetration levels for the model until an LOLE of 0.1 was reached.
Start running the 50/50 ELCC calculations	Ian	Ran the 50/50 model for 30, 50, and 100 percent penetration until an LOLE value of 0.1 was hit for all years.
Automation Progress	David	Automation script is finished and has been sent to MISO for review and testing. Currently using in parallel to confirm results line up with manual hand work.

Pending Issues

No pending issues.

Plans for next week

- Finish working on 75/25 model and calculate the ELCC for all of the renewable penetration levels.
- Prepare for MISO presentation.