

EE 491 Weekly Report MAY 15-08 Week 8 (10/13/14-10/20/14)

Advisors: Dr. McCalley **Client:** US DOE/National Renewable Energy Laboratory

Members (roles):

Alex Tillema - Team Leader

Kyle Kraus- Team Webmaster

Nick Jones- Team Communication

Jared Ward- Key Concept

Josh Martinson- Key Concept

Mohammed Aldaheri- Research

Project Title: Hydropower Vision

Weekly Summary

The goal of last week was to finalize the location of the hydro facility and begin preparations for group presentations and design document.

Meeting notes:

10/3 Conference Call

Duration:

0.5 hour

Members Present:

Alex Tillema- Team Leader

Kyle Kraus- Team Webmaster

Nick Jones - Team Communication

Jared Ward- Key Concept

Josh Matinson-Key Concept

Mohammed Aldaheri- Research

Purpose and Goals:

The purpose of this meeting was to meet with Dr. McCalley and provide updates on project status. Determine what model will be used in PLEXUS as well as finalize the location of the hydro facility.

Achievements:

Unfortunately, Dr. McCalley was delayed in a meeting and could not attend. However, the group as a whole decided that the Manitoba region would be best due to the economic study that was performed by MISO. This will require a 500 kV transmission line to be constructed. However, the benefit to cost ratio averaged over all futures of the transmission line is 2.73 which makes it economically attractive. The study showed that Manitoba Hydro will increase generation revenue, and MISO will receive lower cost due to the compensation for unforeseen changes in wind and load.

Pending issues

What model of the United States will be using when the team models the hydro facility in PLEXUS? This issue will be decided upon at the next meeting with Dr. McCalley.

Plans for next week

Alex Tillema-Will begin work on design document
Kyle Kraus- Will aid in work on design document/group presentation
Nick Jones- Will aid in work on design document/group presentation
Jared Ward-Will continue training of PLEXUS
Josh Martinson-Will continue training of PLEXUS
Mohammed Aldaheri-Will continue research on system modeling

Individual Contributions (this week)

Alex Tillema-Attended meeting, continued training on PLEXUS (1.5hr)
Kyle Kraus- Attended meeting, finished website (1.5 hr)
Nick Jones-Attended meeting, continued economic research on MISO, wrote weekly report (1.5 hr)
Jared Ward- Attended meeting, continued training on PLEXUS (1.5hr)
Josh Matinson- Attended meeting, continued training on PLEXUS (1.5hr)
Mohammed Aldaheri-Attended meeting, continued research on MISO system modeling (1.5hr)

Total contributions for the project

Alex Tillema (19.5 hr)
Kyle Kraus (16 hr)
Nick Jones (18 hr)
Jared Ward (18.75 hr)
Mohammed Aldaheri (17.75 hr)
Josh Martinson (18 hr)