

EE 491 Weekly Report **MAY 15-08** Week 11 (11/02/14-11/09/14)

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 set a goal with Dr. McCalley on what should be completed by the end of the semester.

Meeting notes:

11/04 Group Meeting

Duration:

1 hour

Members Present:

Alex Tillema- Team Leader

Nick Jones - Team Communication

Kyle Kraus- Team Webmaster

Jared Ward- Key Concept

Josh Martinson- Key Concept

Purpose and Goals:

The purpose of this meeting was to obtain a working model of the power system that we can use to model future hydro generation additions in the Manitoba Region. The goal was to set a benchmark on what should be completed by the end of the semester.

Achievements:

Dr. McCalley supplied us with a 13 bus model that we will use to model hydro development and it's integration into the United States. The goal for the end of the semester is to have a model without hydro generation that shows the maximum wind penetration that can be achieved.

Pending issues

Why are the only hydropower plants being looked at in the Manitoba region in the northern part of the province? Is there any opportunity in the south? Alex Tillema will research

Plans for next week

Alex Tillema-Will continue modeling in Plexos and finish 2nd project plan

Kyle Kraus- Will aid in Plexos modeling

Nick Jones- Will aid in Plexos modeling

Jared Ward- Will aid in Plexos modeling and finish 2nd project plan

Josh Martinson-Will aid in Plexos modeling and finish 2nd project plan

Mohammed Aldaheri- Will research and bring to the next group meeting current load data in Manitoba Hydro region so the group can look at export capacity for new transmission line construction

Individual Contributions (this week)

Alex Tillema-Attended meeting, began work on Plexos modeling (3)

Kyle Kraus- Attended meeting and began work on Plexos modeling (3 hr)

Nick Jones-Attended meeting, wrote weekly report (1.5)

Jared Ward- Attended meeting (1 hr)

Josh Martinson– Attended meeting and began work on Plexos modeling (3 hr)

Mohammed Aldaheri- continued research on wind forecasting (1 hr)

Total contributions for the project

Alex Tillema (30.5 hr)

Kyle Kraus (24.5 hr)

Nick Jones (26.5 hr)

Jared Ward (25.25 hr)

Mohammed Aldaheri (26.25 hr)

Josh Martinson (27.5 hr)