

EE 491 Weekly Report **MAY 15-08** Week 9 (10/21/14-10/27/14)

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 begin work on the design document and start work on the group presentations

Meeting notes:

10/3 Conference Call

Duration:

1 hour

Members Present:

Alex Tillema- Team Leader

Nick Jones - Team Communication

Mohammed Aldaheri- Research

Purpose and Goals:

The purpose of this meeting was to join Dr. McCalley in the Hydropower Vision conference call led by Eduardo Ibanez from the National Renewable Energy Laboratory. The goal was to assign authors for specific sections of the report.

Achievements:

The meeting was very interesting and supplied our team with further motivation to continue our research in finding ways to develop hydropower in the United States. For example, current-permitting practices is not written to accurately reflect the benefits of hydropower. This has led to many delays in construction of hydro projects. Dr. McCalley and our team were selected to write the section on the ancillary services that hydropower provides and there benefits to the market.

Pending issues

What model of the United States will be using when the team models the hydro facility in PLEXUS? Dr. McCalley committed to give us a model at the next meeting

Plans for next week

Alex Tillema-Will finish and submit the design document and aid in group presentation preparation. Will research and bring to next meeting location in Manitoba Hydro region where the hydro facilities will be implemented.

Kyle Kraus- Will research and bring to next meeting likely non-hydro generation expansion in the Manitoba Hydro region

Nick Jones- 70% completion on group presentation. Also will bring construction and operating cost of hydro to next group meeting.

Jared Ward- 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

Josh Martinson-Will research and bring to next group meeting likely non-hydro generation expansion in the MISO region

Mohammed Aldaheri-Will research and bring to the next group meeting statistics on wind variance which will help in showing the value of the proposed hydro plant

Individual Contributions (this week)

Alex Tillema-Attended meeting, worked on design document (4)

Kyle Kraus- Aided in design document (2.5 hr)

Nick Jones-Attended meeting, researched cost model, and wrote weekly report (3.5)

Jared Ward- Continued training on PLEXUS, worked on design document (2.5 hr)

Josh Matinson- Continued training on PLEXUS, worked on design document (2.5 hr)

Mohammed Aldaheri-Attended meeting, began research on wind forecasting (3.5 hr)

Total contributions for the project

Alex Tillema (23.5 hr)

Kyle Kraus (18.5 hr)

Nick Jones (21.5 hr)

Jared Ward (21.25 hr)

Mohammed Aldaheri (21.25 hr)

Josh Martinson (20.5 hr)