

EE 491 Weekly Report **MAY 15-08** Week 6 (9/29/14-10/4/14)

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 this week was to complete and submit the project plan for team Hydropower Vision.

Meeting notes:

10/3 Conference Call

Duration:

1 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 get together and discuss the project plan and research that was performed this week.

Achievements:

The project plan was reviewed point by point. The team added the need for a visual project schedule for convenience. There was a great amount of research done by Mohammed that explored the hydro pumped storage cost in the PJM market. This will help the team in discussion whether to use a run of the river approach or to build a reservoir. Nick also added to the run of the river-reservoir debate with a case study of a run of the river dam in West Virginia that went bankrupt due to volatility in river flow.

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 training of PLEXUS

Kyle Kraus- Will continue building the website and give update on progress to team

Nick Jones-Will continue researching construction cost of hydro plants for entrance into competitive energy market

Jared Ward-Will begin training of PLEXUS

Josh Martinson-Will begin training of PLEXUS

Mohammed Aldaheri-Will continue research on system models of MISO and PJM markets

Individual Contributions (this week)

Alex Tillema-Attended meeting, worked on writing project plan (6 hr)

Kyle Kraus- Attended meeting, worked on website (3 hr)

Nick Jones-Attended meeting, Attended a panel discussion with Congressman David McKinley to discuss hydropower in Eastern United States, wrote weekly report (4 hr)

Jared Ward- Attended meeting, assisted on project plan (6 hr)

Josh Matinson- Attended meeting, assisted on project plan (6 hr)

Mohammed Aldaheri-Attended meeting, performed research on PJM about hydro, wind, and solar resources, and PJM about Hydro Pumped Storage cost offers (5 hr)

Total contributions for the project

Alex Tillema (16.5 hr)

Kyle Kraus (13 hr)

Nick Jones (15 hr)

Jared Ward (15.75 hr)

Mohammed Aldaheri (13.25 hr)

Josh Martinson (15 hr)