
EE 491 Week 4 Report - sddec18-03

Design of a More Reliable Power Grid for Puerto Rico

2/12/18 - 2/19/18

Faculty Advisor: Vikram Dalal

Team Members

Logan Lillis - *Communications and Reports Lead*

Ricardo Rodriguez-Menas - *Webmaster and Project Plan Lead*

Heiqal Zamri - *Test Engineer Lead*

Weekly Summary

We had our weekly meeting on Monday, February 12th. After meeting with Professor Dalal during week 6, we established our tasks for this semester and further developed our approximate timeline and project deliverable goals.

Past Week Accomplishments

- ❖ Project Plan Version 1 Created
 - Introduction/Conclusion/Title Page/Table of Contents: Logan
 - Proposed Approach and Statement of Work
 - Project Timeline, Estimated Resources, Challenges: Ricardo
- ❖ First Meeting with Dalal - Discussed project focus and timeline.
 - By May, research:
 - Current grid
 - Type, MW, location
 - Solar: how much sunlight does each region get? -Cal
 - Wind: how much wind does each region get? -Cal
 - Look into natural gas imports
 - How is grid connected/arranged?
 - Back ups, connected to other plants, transmission lines
 - Cost of Electricity
 - Price of Electricity
 - How different sectors pay (commercial, residential, industrial)
 - From here, we'll brainstorm how to subsidize/alter this to save/make \$\$
 - Actual Design Starting in August 2018
 - Project Deliverable Goal: Create a thorough technical paper discussing the technical and economic overhaul of Puerto Rico's Power

Pending Issues

- ❖ Lack of information on current grid layout. Will continue to research.
- ❖ Lack of information on types of online grid simulation software.
 - Will not be necessary until fall semester, but will begin to research.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Logan Lillis	Research on generation plants , microgrid interconnectivity, solar and wind power possibilities, Weekly Reports and Meeting Notes	4	12
Ricardo Rodriguez-Menas	Website, research on economics and weather conditions	2	10
Heiqal Zamri	Research on current power grid	2	11

Plan for Upcoming Week

- ❖ Upload Documents to Website: Ricardo
 - Weekly Report 4 and 5
 - Team Pictures/Bios
 - Project Description
- ❖ Complete Research Slides for meeting with Professor Dalal
 - Solar: how much sunlight does each region get? -Cal
 - Wind: how much wind does each region get? -Cal
 - Current Grid Generation - Logan
 - Cost? Ricardo/Logan/cal
- ❖ Begin Research on LNG terminals, gas turbines, prices of electricity