
sdmay24-30: New Nuclear Design for Electric Power Systems

Week 1 Report

August 28 - September 10

Team Members

Dana Boor — *Team Lead*

Mason Richards — *Researcher*

Damien Henry — *Team Meeting Organizer*

Zachary Hainline — *Researcher*

Jeremy Yost — *Researcher*

Muhammad Syukri — *Researcher*

Summary of Progress this Report

Our team made progress by initiating communication with our faculty advisor. This enabled us to gain a clearer understanding of the project's scope and the associated deliverables. Specifically, we took a look into several critical topics, including:

1. **LCOE (Levelized Cost of Electricity):** We discussed the intricacies of calculating the levelized cost of electricity, ensuring that we are aligned with the project's objectives.
2. **MISO Data Analysis:** Our team dedicated time to exploring the MISO website, which should enhance our project's data-driven aspects and increase our insights into the energy market.
3. **Cost-to-Benefit Calculations:** We discussed the methodologies involved in cost-to-benefit calculations with an emphasis in determining what "costs" and "benefits" should be included. Establishing guidelines for this will be critical in our project's decision-making processes.

By engaging in these discussions, we have laid a strong foundation for our project and are now better equipped to move forward with a well-defined plan and shared knowledge.

Pending Issues

1. Need to establish a timeline with measurable goals and milestones to follow for our project to prevent drag
 2. Need to discuss how we will prevent members from researching the same material
 3. Need to discuss how we will divide the work amongst ourselves.
 4. We are having difficulties finding availability to meet outside of the faculty and TA meetings
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Plans for Upcoming Reporting Period

For the upcoming reporting period, our team will discuss and define the following:

1. Requirements and constraints apply to our project
 2. Engineering standards that apply to our project
 3. Intended Users and Uses of our deliverable
 4. A timeline for the remainder of the fall semester
 5. Generating a list of potential reactor designs we would like to consider for a recommended design.
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Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Dana Boor	Established contact with Dr. McCalley and organized our weekly meetings.	3	3
Mason Richards	Actively participated in team meetings and recorded meeting minutes	3	3
Damien Henry	Assisted in organizing team meetings and actively participated in team discussions	3	3
Zachary Hainline	Actively participated in team meetings and discussions	3	3
Jeremy Yost	Actively participated in team meetings and discussions	3	3
Muhammad Syukri	Actively participated in team meetings and discussions	3	3

Gitlab Activity Summary

Nothing to report.
