

Final Project

ECEGR 4530-Renewable Energy Systems

→ Overview

- Final project worth 35% of your final grade
- Team-based project (2 students)
- Objective: design and analyze a renewable energy system using NREL's System Advisor Model
- Two main parts:
 - Written proposal
 - Oral presentation

→ Context

- Your renewable energy development firm has been invited to respond to a Request for Proposals (RFP) from an investment company (Salvy Investment Corporation) to build a renewable energy power plant
- Only one team will be selected winner (and will receive a 10% bonus to their score)
- You must use SAM to propose a system and provide technical and economic details

→ Specifications

- System must be at single location within the United States
- You may select PV (Detailed PV Model in SAM), Wind, or a combination of thereof for your design
- Use LCOE (Levelized Cost of Energy) for the financial analysis
 - More details on this later
- Total capital cost shall not be less than \$100 million, and shall not exceed \$150 million
- Component costs and other parameters to be provided

→ Written Proposal

- Length: 5-6 pages
- Required content:
 - Company background
 - Location description
 - Technical details
 - Economic details

→ Oral Presentation

- Length: 15 minutes
- Format: pre-recorded and uploaded to Canvas
- Both team members must present
- Required content:
 - Company background
 - Location description
 - Technical details
 - Economic details

→ Question and Answers

- Each student must post at least one question to two different teams (the teams you post questions about will be assigned)
- Each team must respond to questions posted

→ Teamwork Surveys

- Short surveys (2) asking you to provide feedback on your partner

→ Deadlines and Important Dates

- Team members emailed to me (or let me decide) no later than May 12th at 11:59PM (or I will assign you to a team)
- Name of your firm posted to Canvas discussion, no later than May 17th at 11:59PM
- First teamwork survey due no later than May 28 at 11:59PM
- Presentations uploaded to Canvas, no later than June 7th at 11:59PM
- Written questions posted to Canvas, no later than June 8th at 11:59PM
- Responses to questions posted on Canvas, no later than June 9th at 11:59PM
- Final teamwork survey due no later than June 9th at 11:59PM

→ Grading

- **Guidelines: 10%**
- **Proposal: 35%**
- **Presentation: 25%**
- **Presentation Questions: 5% (assessed individually)**
- **Presentation Responses: 5% (assessed individually)**
- **Contribution: 15%**
- **Teamwork survey: 5%**