

Group number: May1727-28

Project title: Stand alone hybrid solar/wind plant

Client &/Advisor: Dr. Ajarapu

Team Members/Role:

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|---------------------------------------|
| Nathaniel Byrne, Team Leader |
| Mike Trischan - concept holder |
| Brian Gronseth Solar Leader/tech lead |
| Jeffrey Szostak, Tech Lead |
| Eric Cole-WebMaster |
| Matt Lee, Communications Lead |

○ **Weekly Summary (Short summary about what you did this week)**

We met with our advisor and his TA to obtain documents from the previous years' senior design groups. These will serve as a starting point for getting our project requirements set and deciding what direction to take our project.

○ **Past week accomplishments (please describe as what was done, by whom, when)**

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| The TA (Ankit Singhal) took a leadership role in insuring we were properly prepared for the project. We also did some research into wind turbines that we may purchase. |
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| Met with advisor, researched previous team project, scheduled room for presentation next week |
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| received documentation from TA and looked at reports from previous teams to get a better idea of what we are supposed to be doing. |
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| Since the meeting, I researched Wind Turbines even more and learned a great deal about them. Before our next meeting Thursday, the team will get together and summarize what we've learned in powerpoint presentation as well as attempt to simulate the solar panel and wind turbine system in Simulink |
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| Researched wind turbines to find a "safe" vertical wind turbine that is rated at approximately 300-400 watts of power for about 500\$. |
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| Assigned group roles, everyone. Reviewed previous years' documentation, everyone. |
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○ **Pending issues (if applicable)**

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| none |
| NA |
| None. Everything is fantastic as of now. |
| The vast majority if not all of the commercially available wind turbines would be considered too dangerous to install on the roof of Coover. |
| Missed last week's meeting so need to meet with group to figure out the next steps. |

○ **Individual contributions**

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| The TA (Ankit Singhal) took a leadership role in insuring we were properly prepared for the project. |
| Researched previous team project, scheduled room for presentation next week |
| Discussed possible directions the solar team could go with Nate |
| I researched different wind turbines as well as learned a great deal about wind turbines. This knowledge will prove to be useful moving forward because it will help us better understand our project. I also looked into how we could attach the wind turbine onto the roof of a building. This will happen because the one we will have won't be tall, so it wouldn't make sense to place it on the ground, but instead on top of a building. |
| Researched possible wind turbines for our project and also looked into alternative wind turbines that we might be able to experiment with. |
| Reviewed previous senior design groups' work. Viewed their presentations, posters and schematics. Created power point slides to review solar generation and solar models. |

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| 3 | 6 |
| 3 | 6 |
| 2 | 4 |
| 4 | 6 |
| 3hrs | 4 |
| 2 | 4 |

○ **Comments and extended discussion**

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| At this stage of the project we are going to be refining some perquisite knowledge before we make design decisions. We are also going to be doing simulations in simulink with prebuilt blocks of our system. FYI the team is currently divided into two groups solar and wind with a sub leader for each group. |
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| Really missed Matt this week :(|
| As a group we seem to be moving forward in terms of progress, although at this point Im still not sure what it is that we are moving towards. |
| None. |
| N/A |
| NA |

○ **Plan for coming week (please describe as what, who, when)**

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| We were giving areas to refresh our knowledge to properly prepare us for project. |
| Present to Ankit what we learned with our research. need to find a wind turbine soon so we can order it and get it here |
| Put together a small presentation about solar cells and how the power generation is supposed to work. Next meeting we will present and start looking taking a closer look at the solar equipment to get a better idea of how everything works. |
| Create the presentation showcasing our knowledge about wind turbines and solar panels. We will then receive more information about the project. |
| We'll also discuss, and hopefully agree upon a specific wind turbine to purchase. |
| Continue research, possibly set up meetings or talk with the wind energy student organization to see how they are able to have a wind turbine on campus. |
| Attend advisor meeting, present to Dr. Ajarapu and Ankit about solar panels and our interpretation of the previous groups designs. |

○ **Summary of weekly advisor meeting (if applicable/optional)**

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| We were giving areas to refresh our knowledge to properly prepare us for project. |
| Discussed what we accomplished last week, discussed what we will accomplish for the next week, discussed wind turbine that might be suitable for the project |
| We discussed our new team roles and each team was given tasks to complete for next week. Solar is supposed to look at the documentation and learn how the components work in the system, wind is supposed to get a better idea of wind turbine specs. |
| The team (Excluding Eric and Matt who had legitimate reasons to not come) attended the meeting with Professor Ajarapu. We discussed different wind turbines and other restrictions we need to consider when determining which wind turbine we would like to purchase. We also began discussing the money aspect of the project. We then discussed the solar aspect of the project and what needs to be done next. |
| We finally went over what needs to be done next week. |
| Advisor rescheduled meeting and I was unable to attend. |
| NA |

