

Iowa State University

Connection Creation

Metrics Report

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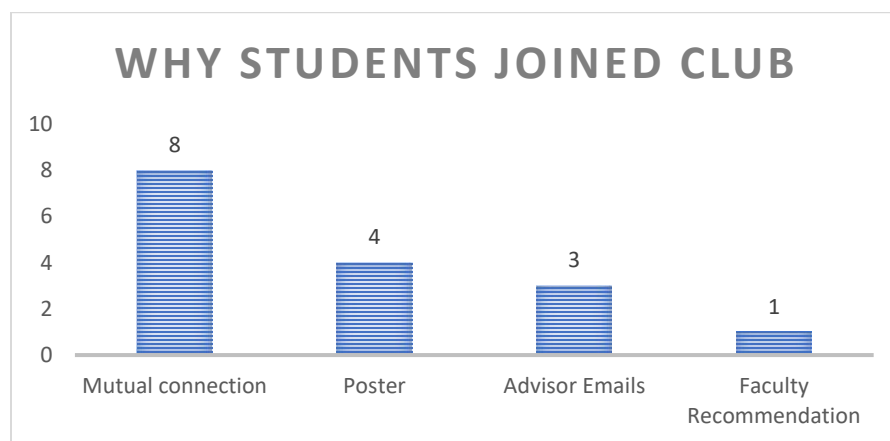
Recruitment

Initially, in July, when applying for this competition, we had five members committed. We are proud to say that we have had 19 students with four graduate student advisors. Our marketing strategy was aggressive. Before the school year started, we blanketed the engineering buildings with posters detailing the competition. We also included poster designs in all of the non-engineering buildings on campus.

We then participated in all of the welcome back club fests that we could, including fall club fest, mechanical engineering club fest, engineering club fest, and spring club fest. Additionally, we worked with engineering advisors to send out email blasts with information related to the club, specifically marketed to the electrical, civil, and aerospace engineering students. We attended meetings for honors students to spread the word, with these meetings composed heavily of freshmen.

Our measures were focused on more than just the engineering side of campus. We worked with economics and business professors to spread the word, with a handful of faculty sending email blasts to their classes. We presented to some economics classes, namely energy economics, to gather interest from students. We also promoted our club at other club meetings, such as the economics club and campus reality climate corps, which had large, regularly occurring meetings. Finally, we worked with the Director of the School of Journalism and Communication to outreach to select students and faculty.

Some of our strategies proved to be more effective than others. The majority of students joined the club because a friend that had joined the club recommended it to them. Among our worst recruiting methods were the club fairs, with no students attending, despite participating in four separate events.



Our team was comprised of 13 engineering students, six liberal arts and sciences students, and one agriculture and life sciences student. All four of our four graduate students hailed from the College of Engineering. Our organization was primarily male, with 21% of our organization being female. Of our engineering students, just one was female, while 42% of our non-engineering students identified as female.

Racially, our team was majority white, with just 22% identifying as Hispanic or Asian. However, this made our team more diverse than Iowa State, whose multicultural enrollment is just 17%. While neither is high, we believe that our team's makeup accurately reflects our university.

Our team was primarily composed of seniors, with 13 of our members identifying as seniors. Of the 13 seniors, 11 graduated by the spring semester, with two planning on returning to Iowa State. The other six students were primarily composed of juniors, representing five students, with one sophomore student. Despite our attempt to attract freshmen at events such as club fest, through posters, and email blasts, our attempts to bring in freshmen, unfortunately, fell short this year.

Most of our recruitment strategies fell short. Despite aggressive marketing strategies, we found that we could not achieve the growth we expected. One potential issue was the need for a sufficient onboarding program. In all, we had ten students attend at least one meeting that did not attend follow-up meetings. Additionally, advertising our club will be easier next year, as we found that when we started having a prototype turbine to bring to events, the interest in our club increased significantly.

Social Media

Our team saw slight growth in social media throughout the year as we garnered interest in our organization. Our social media efforts were exclusively focused on Instagram, where we gained 38 followers, had 18 posts, and had a total of 195 likes on our posts for an average of 10.8 likes per post. Importantly, we know that our posts were being seen, as the two reels we posted on Instagram had a combined viewership of 1320 total views.

While we had decent growth, we could have turned viewers of our posts into likes and followers. One reason we fell short was our initial plan's lack of strong results. Our original plan was to post facts on Wednesdays in a segment titled "Windy Wednesdays" and news stories about wind energy on Sundays, along with a quick opinion piece attached. This plan stopped after our likes per post started decreasing, and our followers communicated that the increase in posting would make them less likely to look at our posts in their feeds.

After that initial blunder, we focused on posting pictures of our members at events and testing updates of the turbine. While this garnered more attention, posting interesting testing data on a semi-consistent basis proved more difficult. While we had some lackluster results on social media this year, our initial failures will be crucial for growth next year.

Industry Connections

One of the most fruitful parts of our competition was the variety of industry connections we made. At all of the interviews that we had as a team, we averaged two to three students attending the interviews. In the interviews with more students, we experienced that conducting effective virtual calls was difficult with large amounts of team members, and thus we aimed to keep the number of participants limited to those that had an expressed interest in the field of the given interviewee. A list of our interviewees and their credentials can be found below:

- Tom Wind, Wind Energy Consultant
- Jared Noack, Project Developer at MidAmerican Energy
- Christy Guthman, Executive General Manager of Sales and Commercial Operations at GE Offshore Wind
- John Norris, Former Federal Energy Regulatory Commissioner
- Omar Longou, Technical Project Manager at Siemens Gamesa
- Steve Dayney, Head of Offshore Wind at Siemens Gamesa
- Cyril Burguiere, Regional Sales Director at Siemens Gamesa
- Simon Mahan, Executive Director of the Southern Renewable Energy Association
- Matt Hein, Manager of Energy Services at Cedar Falls Utilities, Former Wind Energy Educator
- Robert Taylor, Director of Transmission New Markets at Invenergy

We also interacted with those in the wind energy industry outside of video calls and used them as technical support through email connections. These professionals included:

- Tony Hunziker, Manager of Policy Planning at MISO
- Marie Boese, Resource Utilization Team at MISO

Overall, the industry interviews and connections have been a massive success. Every one of our industry connections provided invaluable advice on how to get into their specific sector and the wind sector in general. Our interviews were also primarily used for the Project Development side of the competition. Having industry professionals review our project and offer critiques or provide insight on different ways to think of problems provided us with a much more complete picture of what goes into a wind farm.

Unfortunately, none of our interviews led to job positions from our team members. This was partly due to most of our team members having full-time internships or jobs lined up before some of our interviews. Overall, the experience of discussing how we could get our dream jobs with those that had them provided valuable insight into how to navigate into this sector.

Outreach Events

Our team participated in nine outreach events barring the club festivals. We also worked to have three news articles published about the team, two of which were picked up and used in larger newsletters. A list of our outreach events and a brief description can be seen below:

- George Washington High School Presentation: We presented to an AP Environmental Science class of roughly 25 students. In our presentation, we went over the basics of wind energy, the advantages, both the environment and economically, and answered any questions the students had. Information was sent to the teachers about KindWind.
- Inwood High School Presentation: Presenting virtually to a group of ten students interested in farming, we discussed how wind energy could be integrated into farms and the advantages of wind energy.

- Ames Science Night: An estimated 375 elementary schoolers attended science night. At science night, we had a booth with our prototype turbine and a poster detailing the history of wind energy and pointing to the components of the turbine. We could answer questions on wind energy to both students and their parents.
- Des Moines Area Community College Science Fair: At DMACC's science fair, we presented to 522 people in Boone, Iowa. Our setup was similar to science night, where we answered any questions while talking about the basics of wind energy.
- Iowa State Earth Day Event: Our CWC team was asked to be on the planning committee of the Earth Day Event. As one of eight members on the planning committee, we worked to ensure a smoothly running event. We also had a booth at the event, presenting the basics of wind energy to over 400 students.
- Iowa State Sustainapalooza: We presented a similar setup to 450 students and staff at Iowa State University.
- Presentation to Honors Electrical Engineering Class: We gave a presentation on the basics of wind turbine electronics to a class of roughly 30 students, the majority of them freshmen. We received a great variety of questions, from the cybersecurity of wind turbines to the power systems found on turbines.
- Marston Club: Our team was the only student organization this year that was asked to present to Iowa State's Engineering Donors, the Marston Club. Over 100 of Iowa State's top donors attended the event, where we brought the turbine and answered any questions. Isaac Twedt-Ball, the team leader, gave a three-and-a-half-minute speech to the donors, receiving praise from Iowa State's Dean of Engineering.

In all, we interacted with 1912 members through outreach events. We also had three news articles published about our team in local media. These articles were as follows:

- Iowa State College of Engineering News, [Designing Tomorrow's Wind Energy Solutions in the Collegiate Wind Competition](#): This story was later circulated in the Midwest Energy News for their daily newsletter.
- Iowa State Daily, [Wind Energy Team Promotes Sustainability](#): According to the Iowa State Daily's LinkedIn, they bolster 13,500 daily subscribers.
- The Gazette, [Iowa State Team Named Finalist in National Wind Energy Competition](#): According to The Gazette, they bolster roughly 100,000 daily readers. This publication was later republished in Clean Power RoundUp.

Overall, the Iowa State team worked hard to reach the community, with highly positive feedback. We interacted with thousands of community members and did everything we could to ensure that our presence was felt in the community.