

IPRO 307 - An Illinois Wind Generator System in Chicago

Sponsor:

Illinois Institute of Technology

Goals:

The goals of this project are to analyze the wind resources in Chicago, verify the efficiency of a TurbodynamX wind turbine design, develop a business plan for TurbodynamX, Inc., and research feasibility for a wind farm at Iroquois Landing. These objectives were accomplished through the following tasks:

- Collect and analyze wind data from a monitoring system located at 87th Street and Lake Michigan
- Collect and analyze wind and power data from a TurbodynamX prototype wind turbine, once installed
- Perform market research for Illinois and Wisconsin
- Analyze market data and generate a marketing plan
- Collect information on and around Iroquois Landing

Basic Organization/Tasks:

The students working on this project were divided into two groups, which allowed the team to focus on the diverse technical and business issues associated with the project. The Business Team worked on completing the Business Plan and associated tasks while the Technical Team worked on the remaining tasks.

Critical Technical/non-Technical Issues

- Information gathering from wind monitoring systems
- Feasibility research of the Iroquois Landing wind farm

Conclusion

- TurbodynamX Business Plan rough draft completed
- Preliminary Iroquois Landing research completed

Next Steps

- Build a wind farm on Iroquois Landing
- Collect and analyze data from TurbodynamX wind turbine at the Field Museum
- Use the Business Plan to obtain funding to open a TurbodynamX production facility

Advisors:

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Team Members:

David Gosnell (Team Leader)	Senior-CPE
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