**AF Energy**

**Vertical Axis Wind Turbine**

![Logo](image1)

**Team**
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**Project Summary**

The Vertical Axis Wind Tunnel (VAWT) project has been a joint operation between AF Energy and the University of Saint Thomas for two years. This is the third year of improvements culminating in a wind turbine that will be able to produce power for industrial applications. Our team’s mission was to take the next step in the VAWT’s production by creating a completed wind turbine that can be tested. In order to achieve this goal mechanical improvements are needed and a generator tailored to the VAWT’s output potential.

**Project Goal**

To produce a VAWT prototype that can withstand testing in high wind conditions, producing a power curve displaying the wind turbines output characteristics.

**Design Constraints**

- Combined weight shall weigh no more than 800lbs  
- Improve on previous team’s design