

Joe Albanese Scales the New Wind Turbine at Mark Richey Woodworking

How the Wind Turbine Works

Wind power uses the force of the wind to drive a turbine that produces electricity. The wind turbine is connected to the electricity grid, thereby allowing excess energy to flow back to the electric company. It can replace high-cost fuels like natural gas. The 600 KW wind turbine Mark Richey uses is especially suited for displacing high cost power at manufacturing, educational, municipal water treatment and agricultural facilities.



Joe Albanese and Mark Richey pose at the top of the wind turbine.

Fast Facts

- A wind velocity of 7 mph is required to start the turbine from a standstill, but only 5 mph is needed to keep it turning and generating power.
- The wind turbine is smart enough to pivot and rotate its blades for the maximum wind resistance.
- It's 292 feet tall, with a blade span of 158 feet.
- It's the first of its kind installed in the United States.
- It has an 85 foot deep foundation and automatic braking and shut down at wind speeds higher than 65 mph.
- It has two speeds; a low gear for light winds and a high gear for higher velocity winds.
- It generates enough electricity to power 200-300 average American homes.
- It produces a retail value of about \$400,000 of power per year.
- It provides all of the electricity needed to power Mark Richey's operations.

Benefits of Renewable Energy

- Cleaner Energy
- Reduces harmful air pollutants from power plants
- Protects natural areas from mining and oil drilling
- Reduces water pollution
- Does not disturb ongoing agricultural or forestry operations
- Produces zero emissions of CO2 and other greenhouse gasses
- Can replace sources with high greenhouse gas emissions