

The Vindicator™ Laser Wind Sensor at a Glance

“See” the Wind in Three Dimensions, and Watch Your Profits Soar

The Vindicator™ Laser Wind Sensor... The Future of Wind Sensor Technology is Here

- A forward-looking, laser-based wind sensor system for wind turbines.
- Measures wind velocity and direction at multiple ranges, up to 300 meters in front of turbines.
- Measures wind gusts, turbulence, and wind shear.
- Creates a 3-D “picture” of the wind to control turbines precisely.

The Vindicator™ System On Duty

- Provides accurate, advance real-time data for the control of turbine yaw and blade pitch.
- Allows turbine to “be ready” when the wind arrives.
- Reduces turbine damage caused by yaw angle error, incorrect blade pitch, wind shear and sudden wind gusts.
- The sensor technology wind power generators have been asking for.

Old Problem...New Solution

- To catch more wind, you must “see” it first.
- The Vindicator™ system is the first and only wind sensor system that can look out in front of a wind turbine and sense the wind before it arrives.

- Replaces technology that can only measure wind as it passes the turbine.

The Results Speak for Themselves

- Can achieve 10% increase in turbine output power.
- Maximizes power generation efficiency in very low wind.
- Reduces turbine maintenance costs
- Minimizes turbine catastrophic failure and downtime.

Adapted from the Aerospace Industry

- Uses the same basic laser Doppler technology as developed for military helicopter landing systems.
- Eye-safe, low-power laser beams are reflected back from dust particles in the air, allowing real-time measurement of wind velocity and direction.
- Computer algorithms create a 3-D “picture” of the wind and guide turbines for greatest efficiency.



The Vindicator™

Laser Wind Sensor at a Glance

Top-End Technology in a Small Package

- Complete Vindicator™ laser wind sensing system weighs less than 50 pounds.
- Lens head mounts on top of turbine; electronics housed internally, reducing exposure to harsh environments.
- No RF emissions to interfere with other equipment.
- No moving parts to fail.
- Can integrate with existing turbine control systems.
- Eye-safe for humans and animals.

About the Developer/Manufacturer

- Catch the Wind, Inc. is a high-tech, aerospace engineering and manufacturing company based in Northern Virginia.
- The Vindicator™ sensor's advanced technology is based on technology developed by Optical Air Data Systems, LLC (OADS), Catch the Wind, Inc.'s parent company.
- OADS is a leading laser sensor research and development company, with recent success developing sensors to assist military helicopters operating in the deserts of Iraq.

The Bottom Line

- Higher turbine output power.
- Lower turbine maintenance costs and downtime.
- Fewer safety risks for turbine technicians.
- Low cost — purchase or lease the Vindicator™ system.
- Pays for itself quickly.
- Makes greater profit from wind power generation a reality.

A Green Solution for Our Planet's Energy Challenges

The wind is free, but you have to catch it efficiently. The Vindicator™ laser wind sensor makes clean, free wind energy more profitable. That's better for wind farm operators, the environment, and future generations of power consumers.

For more information about the Vindicator™ laser wind sensor system and additional laser sensor products, please call:

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