

## The Team:

### Wes Slaymaker P.E.

- President/CEO

Wes has more than 10 years of experience in commercial scale wind development.

Worked on projects ranging from 100KW to 300MW.

Certified Professional Engineer since 1997.

### Kiril Lozanov

- Energy Assessment Manager

Kiril has more than 5 years of experience in the renewable energy industry.

Worked on projects from 1MW to 300MW. Has GH training in WAsP and WindFarmer modeling  
Kiril has managed the energy assessment work at projects totaling to over 3000MW.

Diana Cohen - Data Analyst

Jake Stacken - Meteorologist

We also have a construction manager,  
Civil engineer, Electrical engineer  
and field staff

## Other Valuable Services:

- New Project Sites Prospecting
- Wind Measurement Campaign Design
- Performing the Entire Wind Assessment
- Wind Data Processing and Analyzing
- SODAR and LIDAR Measurements
- Long-Term Correlations and Estimates
- Interconnection Assistance
- Electrical and Civil Engineering
- Project Management through Development and Construction (medium and small projects)
- Turbine Noise Modeling and Prediction
- Ambient Noise and Vibration Measuring
- Turbine Shadow-Flicker Modeling
- Existing Turbine Shadow-Flicker Measuring
- Assistance with Grant Writing
- Assistance with Turbine Purchasing
- Wind Resource Grid Calculation (WAsP)
- Turbine Micrositing and Optimization
- Turbine Power Performance calculations (NCF, P50, P90, P95, P99, Wake Effect)
- Turbine Visual Simulations
- Feasibility Studies (20y pro forma and more)
- and More...

# Wind Energy Systems Engineering Inc.

## Professional Wind Project Development Services

# LIDAR ZephIR 175

- Fast On-Site Wind Data
- Affordable & Accurate
- at Hub-Height and beyond

## WES Engineering Inc.

### Paterson St. Office:

211 S. Paterson St. #354

Madison, WI 53703

ph# 608-338-0552

ph# 608-251-6733

fax# 608-299-0426

[Kiril@wesengineering.com](mailto:Kiril@wesengineering.com)

### Orchard St Office:

706 S. Orchard St

Madison, WI 53715

Ph# 608-259-9304

[wes@wesengineering.com](mailto:wes@wesengineering.com)

[www.wesengineering.com](http://www.wesengineering.com)

We are a small Engineering company with hands-on experience in the wind energy developing process. We are fast and reliable. Our business approach is flexible and our services are priced with affordability in mind.

Every customer is treated with Respect and every project is completed with accuracy and integrity

We care about You and Your Project!

All in One, Budget Priced,  
Wind Assessment Solution

### LIDAR Measurement Service:

- Standalone LIDAR
- As Met Tower Extension
- As Wind-Shear Profiler
- For Installed Turbines
- Power Curve Verification
- More...



WES  
ENGINEERING



## STANDALONE LIDAR MEASUREMENT

**Use the LIDAR for Project prospecting.**  
Before you install a met tower you can verify the wind speed at the site and reduce the investment risk early on.

**For one turbine projects use a LIDAR**  
to predict the wind speed. It is compact, It is accurate, It measures up to 200m, It is affordable (cheaper than a met tower).

**For Discreet Project Prospecting,**  
use the LIDAR, It is almost invisible, but precise and reliable.

**PRICE (code: K052211):**  
**LIDAR measurement 1 month and data analysis with report - \$9,650.00**  
**Optional- Long-Term Correlation - \$1,950.00**



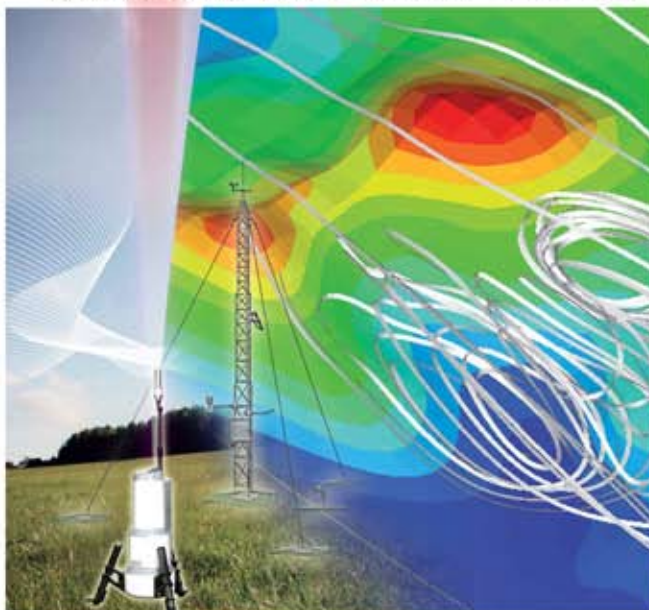
## LIDAR with a Met Tower

**Use the LIDAR to Extend your Met Tower.**  
If you have a 60m met tower or a 80m tower and your turbine hub-height is 100m, then the LIDAR can help to measure at Hub-Height. It will measure through the entire rotor diameter.

**Use LIDAR to reduce the Wind-Shear uncertainty through actual measurement**  
Using 60m tower to predict the wind speed at 80m or 100m comes with a height interpolation uncertainty. This produces very unfavorable Probability numbers for financing. You can get better project financing by using the LIDAR.

**- Great for Complex terrain measurements, with built-in CFD complex flow calibration**

**PRICE (code: K052211):**  
**LIDAR measurement 1 month, data analysis and met tower correlation with report - \$11,650.00**  
**Optional- Long-Term Correlation - \$1,950.00**



## LIDAR for Turbine Power-Performance Verification

**Does your new turbine perform as warranted?**

**Are you producing the power you should?**

**Can you improve the power production?**

**You can find out by using the LIDAR**  
by Measuring the wind coming to the Turbine, and comparing to the guaranteed Power-Curve.

Now you can have accurate data when speaking with the turbine manufacturer (supported by an independent measurement).

For affordable PRICING please contact  
WES Engineering Inc. at **608-338-0552**  
or by e-mail: **kiril@WESEngineering.com**

Options for multiple months of extended monitoring are available

