



WDT and NanoWeather Awarded Major Grant for High Performance Wind Assessment and Forecasting System

Oklahoma EDGE (Economic Development Generating Excellence) Program Award Creates New Opportunities for State, Nationwide and Global Wind Energy Industry

NORMAN, OK., Dec. 15, 2008 - Weather Decision Technologies, Inc. (WDT), a global leader in state-of-the-science weather applications, and NanoWeather, a leading microscale forecasting company, announced today that they are part of a consortium of academic, public, and private enterprises that has been awarded a major two-year grant by the Policy Board of the State of Oklahoma's EDGE initiative. The consortium is led by the University of Oklahoma's Oklahoma Wind Power Initiative (OWPI). The grant was made to WDT and NanoWeather to conduct research and development into a Wind Power Assessment and Forecast System (WPAFS) in support of the state's rapidly growing wind energy industry.

WDT and NanoWeather are combining global and ultra-high resolution forecasting models to provide wind assessments and forecasts with amazing accuracy, providing advanced, next-generation wind modeling data so detailed that wind energy businesses will be able to prospect and predict wind forces which are accurate right down to the individual wind turbine level. This new system opens doors for wind energy companies seeking to prospect optimal sites for wind turbine installation and manage ongoing wind energy operations more efficiently and profitably.

Research grants have been issued by the Policy Board of EDGE. The Board recently approved funding totaling more than \$11 million for five innovative research projects – the first such awards in what is expected to be an annual event to stimulate cutting edge research that will advance Oklahoma's economy.

The newly-funded WDT-NanoWeather project is led by the Oklahoma Wind Power Initiative at the University of Oklahoma, which has chosen the two companies to provide the WPAFS. WDT will lead the development of this advanced tool for prospecting, site assessment, and high spatial and temporal forecasts for wind energy operations. Notably, WPAFS will run a pair of highly accurate physical models in concert: the Weather Research and Forecasting (WRF) model, the National Weather Service's premier mesoscale model; and the Uncoupled Surface Layer Model (USL), an award-winning microscale model by NanoWeather.

"Wind energy is fast becoming a critical component of the State of Oklahoma and the United States' renewable energy infrastructure and economy," said Mike Eilts, President of WDT, Inc. "WDT and NanoWeather's unique, high performance, high resolution assessment and forecasting techniques will allow wind energy businesses to assess the best and most profitable locations for future wind turbine installations, and – equally important – will

allow wind energy businesses to more accurately forecast power loads for the fine tuning of active wind turbines for maximum energy output," said Eilts.

WDT and NanoWeather were awarded the grant as part of the "Renewable EDGE" project, proposed by Dr. Scott Greene, Geography Professor and Director of the Oklahoma Wind Power Initiative (OWPI) at OU, who received one of the five inaugural EDGE grants. Renewable EDGE will assist the wind energy industry in Oklahoma and elsewhere by producing high-precision wind power assessments and forecasts in a highly integrated geographic information system. Faculty from the University of Oklahoma along with partners from Oklahoma State University, Weather Decision Technologies, Inc., NanoWeather, Inc., and other academic and government groups across the state will be involved in the implementation of the proposal.

"The powerful combination of the WRF-USL model provides a unique high-precision system for wind prospecting, site analysis and micrositing," said Dr. Greene. "For operating wind turbines, this solution provides real-time wind power forecasting to provide forecasts of unsurpassed precision and accuracy at the scale of individual wind turbines," Dr. Greene said. "This fine granularity of wind data detail is made possible by WRF weather predictions on a very fine grid of 1 km, or finer. The NanoWeather USL then corrects the WRF output to forecast the wind at individual wind turbines."

The WRF and USL models will run on a supercomputer with 200 to 400 processing cores, for extremely high levels of processing and computation. The project will also employ site observations of wind speed and power load to fine-tune the models.

About EDGE (Economic Development Generating Excellence)

The State of Oklahoma's EDGE initiative was developed to provide a blueprint for the state's future economic growth. The EDGE Endowment supports research and the transfer of innovation and technology to the private sector. The plan is for this strategic investment to transform Oklahoma into the "Research Capital of the Plains." Research results will be directed toward innovation that will strengthen current Oklahoma businesses and create businesses that are likely to remain in the state. All key actions of the fund are focused on allowing Oklahoma to become a center of powerful research to support a vigorous economy that propels Oklahoma into a business leadership position.

About Nanoweather

NanoWeather Inc. is a leader in microclimate research, technology, and forecasting. Founded in 2006, the company is headquartered in Norman, Oklahoma.

About Weather Decision Technologies (WDT)

Founded in 1999, Weather Decision Technologies has become a global leader in providing state-of-the-science weather detection, nowcasting, and forecasting systems and services to our partners and customers. WDT provides its numerical weather prediction capabilities and services for weather sensitive industries globally. WDT maintains operational and international offices in metropolitan Washington, DC; Norman, Oklahoma; Munich, Germany; and Tokyo, Japan. For more information: www.wdtinc.com.

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