

Exhibit C

Laufer Wind Group LLC

File #: 0136-EX-PL-2009

The Laufer Wind Group seeks nationwide authority to facilitate testing and development of its new technology, the Aircraft Detection Sight Solution.

Description of the ADSS

The Aircraft Detection Sight Solution (ADSS) is a new technology and approach to aviation obstruction lighting for wind farms. Currently, obstruction lights are required by the FAA to be on throughout the night on wind farms, irrespective of there being an aircraft nearby. The ADSS allows for a different strategy: radar detects when aircraft are in the vicinity of a wind farm. The lights are turned on when one or more aircraft are found to be present; otherwise, the lights remain off. This strategy benefits local communities, wildlife, wind farm development and potentially aviation safety.

The purpose of this FCC license application is to perform the following radar system testing at wind farms throughout the continental United States.

Radar System Testing

Radar is designed to find large moving targets, which is a near perfect description of a spinning wind turbine. The turbines create *clutter* in the radar returns, which creates difficulties when trying to detect and track small aircraft in the vicinity of a wind farm. The Laufer Wind Group has developed or applied a number of strategies to overcome these difficulties. However, it is expected that suppressing the turbine clutter will cause an overall degradation in the radar's detection performance. It must be ascertained how much degradation will occur at a variety of radar/wind-turbine/aircraft configurations, for a variety of wind conditions at a variety of radar system settings. The ultimate goal is to gather enough data to create a *performance matrix* so that radar position and system

settings can be optimized for maximum detection performance in the presence of wind turbines at a broad spectrum of wind conditions.

The *performance matrix* will have the following four categories of variables:

1. Radar/turbine location configurations.
2. Aircraft flight paths.
3. Radar system settings.
4. Wind conditions.

Radar /Turbine Location Configurations:

The radar unit will be placed at a variety of distances from, and orientations to the wind turbines at different wind farms. There is a minimum separation distance where the wind turbine's presence in the radar's side and rear lobes will not allow for accurate aircraft detection. The turbines will essentially be *jamming* the radar. There is also a separation distance where the turbine's presence will have no measurable effect on radar performance. The first step is to determine what these distances are for various wind turbine sizes and types. Once these distances are determined, a reasonable number of values between them will be looked at.

The radar unit will be placed at a variety of orientations to the spinning wind turbine blades. Measurements will be taken at a range of orientation angles; from orthogonal to the plane of rotation through positions coincident to it. Data points will be taken at increments of 30 degrees. It should be noted that changing the radar's orientation with respect to a single turbine is functionally equivalent to a change in wind direction. Keeping the radar at a constant orientation to a single wind turbine across a variety of wind directions is equivalent (given other factors being equal) to taking measurements for a single wind direction across a variety of radar/turbine orientations.

Aircraft Flight Paths:

General aviation aircrafts will fly flight paths at a variety of altitudes and directions to and from the wind turbines and radar. Directions from 0 degrees to 330 degrees (cardinal direction) will be flown at increments of 30 degrees. Altitudes from

500 ft to 5000 ft will be flown at increments of 500 ft. Other flight paths, which are more irregular in altitude and direction, will also be flown. FAA regulations will be followed at all times.

Radar System Settings:

Radar system parameters such as sweep rate, sample rate, range-azimuth gating, detection thresholds, matched filters, smoothing filters, window functions, ramp functions, certain DSP gain adjustments and IQ data offsets will be varied to determine the optimum settings for detection across the broadest spread of conditions.

The general procedure for radar performance evaluation at all combinations of variable values is the following:

Local pilots will be hired to fly small general aviation aircraft on the necessary flight paths in the vicinity of the wind farms. There will be a hand-help GPS unit aboard the aircraft, which will keep an accurate time/position/speed log of the aircraft's flight. On the ground, the radar will detect and track the aircraft's flight. The radar's detection and tracking logs will be compared to the GPS' logs to determine performance.

The LWG has a self-powered, trailer mounted radar unit on a retractable tower, which will be used for these radar measurements. This system is ruggedized for light off-road travel and can be pulled by a ½ ton truck.

It is pictured below:



Wind Farm Locations and Nationwide Authority

Wind farms exhibit an incredible variety of variation in size, configuration, type of turbines used and local topography. The ADSS is being designed as a universal solution for all wind farms. Therefore it is critical for the radar system testing regiment to be performed at as many wind farms as possible.

Initial radar testing has been performed in conjunction with the radar unit's manufacturer DMT LLC, under their nationwide license for the same equipment, file number 0670-EX-PL-2007. This testing has occurred in the town of Old Field, NY.

The next phase of testing will occur at the National Wind Technology Center at the National Renewable Energy Lab (NREL), south of Boulder, CO.

The Laufer Wind Group is also working with a wind energy company called Orion Energy Group. Orion Energy Group has granted LWG permission to perform radar testing at their wind farms. The initial locations will be the Camp Grove Wind

Farm, in and around Camp Grove, IL and the Benton County Wind Farm, in and around Benton County, IN.

There are currently wind farms in 35 states throughout the nation. The Laufer Wind Group plans to take the mobile radar unit pictured above to as many wind farms in as many states as possible to collect data for the ADSS' development. The more locations that data can be collected at, the more robust and safer the ADSS will be when deployed.

A mobile, nationwide license will facilitate this process.