**UNITED STATES DEPARTMENT OF COMMERCE**
**National Telecommunications and Information Administration**
Washington, D.C. 20230

JUN - 3 2015

Mr. Seth Wilmore
Associate Director, Environmental Affairs
EVERPOWER Wind Holdings, Inc.
1251 Waterfront Place, 3rd Floor
Pittsburgh, PA 15222

Re: Cassadaga Project: Chautauqua County, NY

Dear Mr. Wilmore:

In response to your request on February 23, 2015, the National Telecommunications and Information Administration provided to the federal agencies represented in the Interdepartment Radio Advisory Committee (IRAC) the plans for the Cassadaga Wind Project, located in Chautauqua County, New York.

After a 45+ day period of review, one agency, the Department of Commerce, had issues with turbine placement in this area. Comments from the reviewer are as follows:

> Commerce has completed our review of the subject wind project proposal and it is anticipated that the project would have low impacts on the Buffalo, NY WSR-88D operations. Since the project is located in the ROC designated Notification Zone, they would like to track this project to its completion and be notified of any significant changes.
>
> Please see attached Impact Analysis report from Commerce for further information.

While the other IRAC agencies did not identify any concerns regarding radio frequency blockage, this does not eliminate the need for the wind energy facilities to meet any other requirements specified by law related to these agencies. For example, this review by the IRAC does not eliminate any need that may exist to coordinate with the Federal Aviation Administration concerning flight obstruction.

Thank you for the opportunity to review this proposal.

Sincerely,

Peter A. Tenhula
Deputy Associate Administrator
Office of Spectrum Management

Attachment

# Cassadaga Wind Energy Project – Impact Analysis
## NOTIFICATION OF CHANGES REQUESTED

**Buffalo WSR-88D Impacts Summary and Desired Action**

Fifty six of the wind turbines in the Cassadaga Wind Energy Project would be in the Buffalo WSR-88D radar's line of sight (RLOS) and would be routinely cause clutter in the radar data. Most of the project area is within the radar's designated Notification Zone (yellow area in Fig 1). However, due to the distance and terrain drop-off from the radar, impacts to radar data should be low and confined to the wind farm area. The Radar Operations Center would like to track the project to completion and reanalyze it if significant changes are made. Please notify the Radar Operations Center of significant project changes via email at wind.energy.matters@noaa.gov.

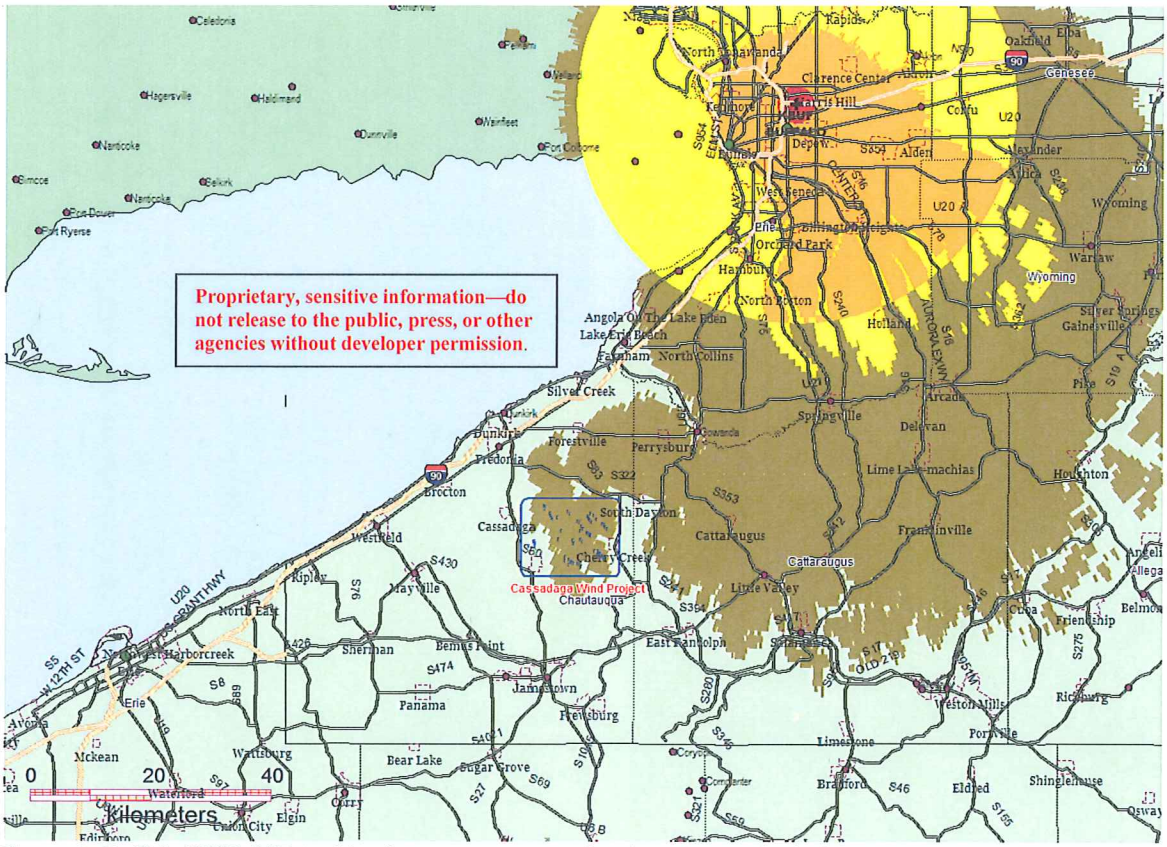


**Figure 1: Buffalo WSR-88D turbine impact zone map showing proposed wind farm area (blue box with small blue marks). The red RLOS area is the 3-km radius No Build Zone, the orange RLOS area is the Mitigation Zone, the yellow RLOS area is the Consultation Zone, and the Olive Green RLOS area is the Notification Zone.**

**Cassadaga Wind Energy Project Analysis**

The proposed project would install 75 wind turbine generators, each with a maximum blade-tip height AGL of 165 meters, as close as 76.1 km southwest of the Buffalo, NY WSR-88D. Beam propagation analysis indicates that 56 of the 75 turbines in the area would protrude into the radar beam, up to 11% of the beam width, during the 1st elevation scan angle (0.5 deg), under standard atmospheric conditions. These wind turbines would be frequently visible in the Buffalo radar data in radar azimuths 203-212° (SSW). Due to distance (> 20 km), multipath scattering down-range from the wind farm is not expected


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to occur. Data impacts should be confined to the wind farm area. Mitigation is not necessary for this turbine siting configuration (see Fig 2).

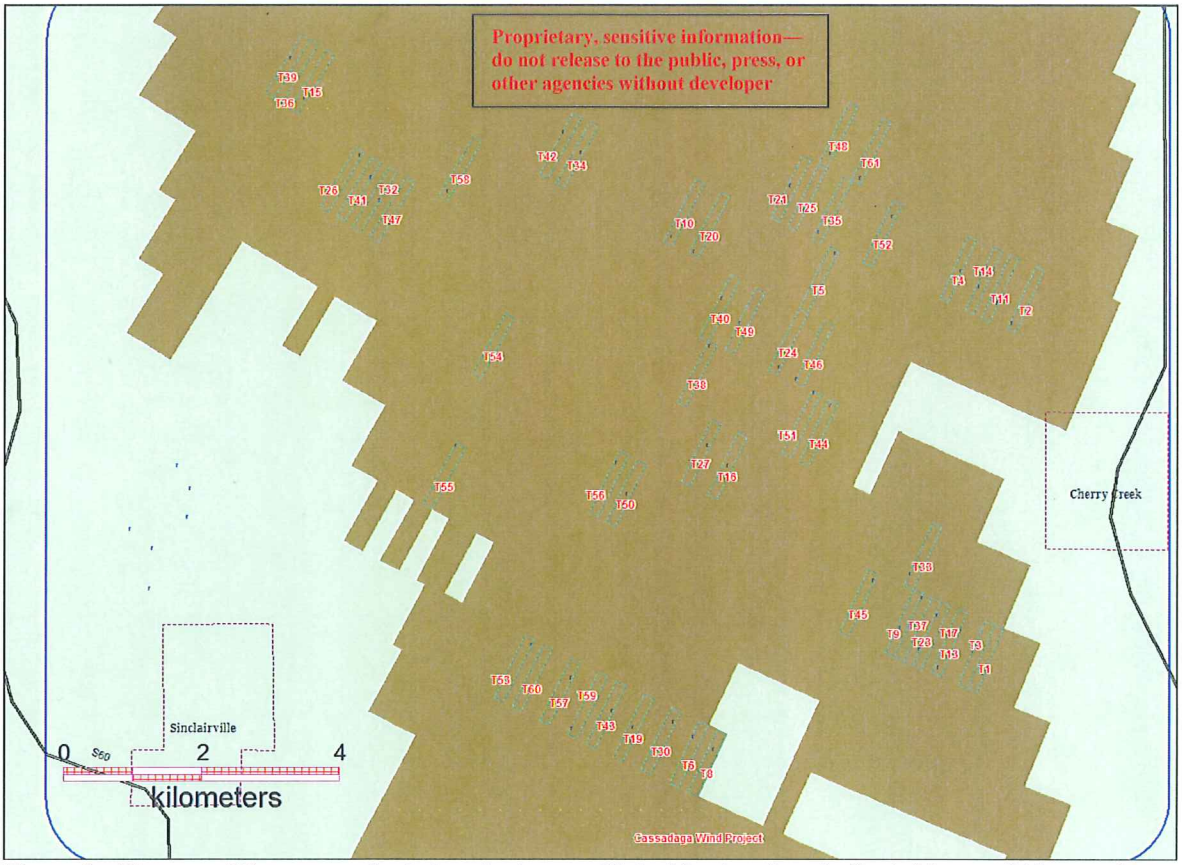


**Figure 2: Close up of the proposed wind project area with turbine locations indicated by small blue marks. The marks labeled with turbine numbers, and rectangular 1 km range gates superimposed, are the turbines that would be in the radar's line of sight. The dark green area is the radar's Notification Zone--where turbines would penetrate the radar beam.**

**Recommendations**

-- NOAA will not request mitigation for this project configuration.

-- NOAA requests to be notified of any significant changes to the wind energy project, such as raising the turbine heights by more than 10 meters, or if a number of turbines are moved a significant distance.

**Report date: 30 April 2015**

**For more information, please visit the Radar Operations Center Wind Farm Interaction Web Page at http://www.roc.noaa.gov/WSR88D/WindFarm/WindFarm_Index_GreatFalls.aspx?wid=***



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## Benjamin Brazell

**From:** Seth Wilmore <SWilmore@Everpower.com>
**Sent:** Tuesday, April 19, 2016 7:53 AM
**To:** Joyce Henry (JHenry@ntia.doc.gov)
**Subject:** Cassadaga Wind Project Update
**Attachments:** Cassadaga NTIA Response June 2015.pdf; Cassadaga NTIA Updated Letter April 2016.pdf

Good morning Joyce,

Hope all is good with you. We previously worked together on the NTIA's review of the Cassadaga Wind Project in Chautauqua County, NY. We received that attached letter indicating no issues, but that the NOAA would like to be informed of an increase in height greater than 10 meters or significant changes in turbine location. I have also attached the latest Project information in your preferred format. There are some changes, but overall it is a reduction in the total number of turbines, a reduction in tip height, and I don't believe any of the turbine location shifts are significant.

Let me know if you have any questions.

Thanks very much,

Seth