

## Survey distances vary on turbine setback

Scott Funston, a Melancthon non-participating resident in proximity to Dufferin Wind Power Turbines T7 and T8, says he has surveys proving that T7 is less than 550 metres from his home.

But DWP says that "all turbines in the project are in compliance with the minimum setback of 550m," and that it has sent Mr. Funston aerial maps showing that T7 has been measured at 562 metres, and T8 at 567m.

Mr. Funston says he has a Van Harten survey showing the centre of his house as 548.2 metres from the centre of Turbine T7, which would be 1.8 metres short of 550. He said he considers that the attached garage should be considered as part of the residence. The 548.2 measurement included the garage as part of the residence.

Rebecca Crump, director of development for DWP, however, said on Tuesday that the Ministry of Environment requires setback distances to be measured from the centre of the living space.

As well, she said, there are two distances surveyed: ground level for setback distance; and, for sound, from a 4.5-metre elevation at centre of living space to the turbine's nacelle.

Ms. Crump said the ground level measurement is between 551 and 552 metres, whereas the elevated one is 562 "similarly to the base and hypotenuse of a triangle.

In an earlier response, Connie Roberts of DWP emailed that, "The layout of the Dufferin Wind Farm was carefully scrutinized by the Ministry of the Environment, and based on precise measurements using Universal Transverse Mercator (UTM) Co-ordinates, the wind farm layout was approved. UTM measurements are the industry standard and a requirement of the MOE.

"In addition, the Ministry of the Environment has responded to Mr. Funston's concerns and has found the project to be in compliance with minimum setback requirements.

"On November 29th, Gary Tomlinson from the Ministry of Environment visited Turbine 7 and Turbine 8, used a GPS to measure the area, took those measurements back to the MOE to match them with the UTM measurements and deemed them accurate as presented in the project plan," Ms. Roberts said Jan. 8.

In a phone interview Friday, Mr. Funston denied that he had ever received the maps referred to by Ms. Roberts. He acknowledged that Mr. Tomlinson had attended to confirm the surveys; however, he said, Mr. Tomlinson used only a hand-held GPS device to do so.

Not satisfied with the outcome, Mr. Funston hired Van Harten, the firm that had completed the original DWP surveys, to complete another one.

This time, with the turbine base poured and part of the tower erected, he said the Van Harten survey showed a setback of 548.2 metres between his residence and Turbine T7 whereas, he said, the original design setback had been 556.5 metres.

Does a shortage of 1.8 metres in setback make any real difference? "I don't care if it's only a metre or less, it's still not (in compliance)," Mr. Funston responded.

Here, in part, is Ms. Crump's follow-up email response to questions about survey variations:

"Dufferin Wind Power's professional survey teams have carefully surveyed and checked the location of each turbine with high-accuracy survey equipment. The survey process is meticulous and is performed a number of times throughout the construction

process to ensure accuracy. The Ministry of the Environment (MOE) has also been actively field-verifying the turbine locations on an ongoing basis to ensure compliance with provincial permitting.

Measurements can vary depending upon the type of equipment used, the experience of the person taking the measurement, and where these measurements are actually being taken. A key issue in the case of Mr. Funston is that he believes that his vehicle garage should be included in the measurement and provincial rules do not include non-living spaces into the calculation. Both Dufferin Wind Power and the MOE have reconfirmed that Mr. Funston's property is outside of the required setback.

From the centre of Mr. Funston's Home to the centre of the turbine foundation, the ground level distance has been measured at between 551 and 552 metres.

However, sound measurements are determined differently. They are taken at 4.5 metres above ground for a two-story home (from the centre of the home) in a straight line, up to the nacelle of the turbine, where sound is generated. This straight line distance is 562 metres.

The project's noise modeling is very conservative to ensure full compliance with provincial regulations. Dufferin Wind has confirmed that even with the MOE's updated measurement, Mr. Funston's property remains in full compliance with the noise regulations.

Of the many receptors within the project area, there is a very small number that are close to the minimum setback limit and survey teams have confirmed the measurements.

Individuals with concerns about setbacks can first contact Dufferin Wind for further information. Individuals may also contact the Ministry of the Environment (MOE) for further information and to request that their setbacks be confirmed, Ms. Crump concluded in part.

**By Wes Keller**