

## William Cundiff

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**From:** William Cundiff [wcundiff@douglasma.org]  
**Sent:** Thursday, October 21, 2010 1:31 PM  
**To:** 'jay@bbmatlaw.com'  
**Cc:** 'Adelle Reynolds'; 'Dan Heney'; 'neexpansion@aol.com'  
**Subject:** RE: Turbine Setbacks  
**Attachments:** Turbine Setbacks

Hi Jay:

The Applicant asked that I forward the attached explanation email to you regarding the setbacks, so I am doing so. Also, The Applicant further asked that you discuss this question with Lisa Meade of your office as she had participated in the discussions pertaining to drafting the variance decision (setbacks in particular). Please let us know if this changes your previous comments (below).

-Bill

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**From:** [jay@bbmatlaw.com](mailto:jay@bbmatlaw.com) [mailto:[jay@bbmatlaw.com](mailto:jay@bbmatlaw.com)]  
**Sent:** Wednesday, October 20, 2010 12:55 PM  
**To:** Bill Cundiff  
**Subject:** Re: Turbine Setbacks

While there is some ambiguity, I would take position that the set back would be from the widest/closest point of the structure. If the foundation is underground, that may not be a measuring stick. My position is based upon the purpose of setbacks in general - ie, relief from the closest point. I could envision an argument that the tips should not be used but based on the current language, I can't accept that, absent some evidence (plans, memoranda) to the contrary.

Sent via BlackBerry by AT&T

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**From:** "William Cundiff" <[wcundiff@douglasma.org](mailto:wcundiff@douglasma.org)>  
**Date:** Wed, 20 Oct 2010 12:19:00 -0400  
**To:** 'Jay Talerman' <[jay@bbmatlaw.com](mailto:jay@bbmatlaw.com)>  
**Subject:** RE: Turbine Setbacks

Hi Jay –

Any input on this?

-Bill

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**From:** William Cundiff [mailto:[wcundiff@douglasma.org](mailto:wcundiff@douglasma.org)]  
**Sent:** Tuesday, October 12, 2010 10:34 AM  
**To:** 'Jay Talerman'  
**Cc:** 'Steve Zisk'; 'Dan Heney'; 'Adelle Reynolds'  
**Subject:** Turbine Setbacks

Hi Jay –

The ZBA Variance Decision for the Wind Farm Project states in relevant part: *“The wind turbines shall be set back one thousand (1,000) feet, or more, ... from any residential structure ...”* and further says: *“No turbine shall be located closer than 150 feet to any property line ...”* and has other similar setback language throughout the variance decision. The question is where is this setback measured to on the wind turbine itself? .... The foundation, the monopole, the tip of the blade? Please let me know your thoughts on this.

Thanks,

Bill

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## William Cundiff

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**From:** neexpansion@aol.com  
**Sent:** Tuesday, October 12, 2010 5:34 PM  
**To:** wcundiff@douglasma.org; szisk@douglasma.org; areynolds@douglasma.org  
**Cc:** clizotte@vhb.com; info@americanprowind.com; pbrown@brown-brown-pc.com; rtab@atlanticcompanies.com  
**Subject:** Turbine Setbacks

Dear Mr. Cundiff,

This letter serves to clarify your question regarding the method of measuring setbacks to the wind turbines proposed in the Douglas Woods Wind Farm site plan. The industry standard is to measure setbacks from the center point of the wind turbine tower base, regardless of whether the setback refers to a setback from the property line, from a public way, or from existing residential buildings. In fact, setback requirements are often stated as multiples of turbine height with the blade extended (e.g. 1.5 time the height of the turbine). The theory being that if the turbine fell over (an extremely remote possibility) from the base, it would not reach the nearest residential building.

The ZBA Variance Agreement (ZBA Decision 2009-04) specifically states the turbine setback dimensions (1,000 feet to existing residences, 150 feet to property lines, etc.) but does not explicitly state the methodology of measurement. However, the standard methodology, used both by proponents and by regulators, uses the turbine tower base as the starting point and typically uses the center point of the tower base as the starting point for measurement. In fact, the wind energy zoning bylaw recently adopted by the Town of Douglas explicitly states that setbacks to property lines, public ways, and buildings shall be measured as "The minimum distance from the base of the tower....". So the methodology utilized by Vanasse Hangen Brustlin on the Douglas Woods site plan is consistent with the methodology spelled out in Douglas' own wind energy zoning bylaw. Our research of other wind farm site plans, bylaws, and ordinances makes it clear that the standard methodology of setback measurement is to start from the base of the turbine tower and not from the outside tip of the blade when extended directly toward the residence or property line. We can provide samples of state model ordinances in Maine, New Hampshire, and Illinois as well as local bylaws/ordinances where the methodology of measurement is explicitly stated. In all cases, the setback is measured to the turbine tower base. We were unable to find any examples of the blade being used as the starting point to measure setbacks.

In addition to it being the industry standard, American Pro Wind has been very clear and up front publicly from the beginning of the project that its proposed plan was based on setbacks as measured to the turbine tower base. A Community Outreach project presentation was provided to 134 residents and town officials of Douglas and Webster in March, 2009 at the Point Breeze Restaurant. This presentation was submitted to the Douglas ZBA during the variance hearings held between February and May, 2009. On page 11 of the presentation, a side-by-side comparison is shown contrasting the 1,000 ft. residential setback proposed at Douglas Woods to the 480 ft. setback in Hull. The aerial photo clearly shows both setback lines drawn to the turbine tower, not the tip of the blades. On page 31 of the same presentation, a conceptual turbine siting plan is shown based on the proposed 1,000 ft. residential setbacks. In the plan as shown, Turbine #1 is in a location that can only conform to the 150 ft. property line setback if the measurement is taken from the base of the tower to the property line. It could not even exist in that area of the site if the setback was measured to the tip of the blade. These slides make it very clear that from the beginning of the ZBA public hearings the setbacks being proposed are to be measured from the base of the tower.

In the Turbine Location Plans submitted on 6/25/2010 as part of the Site Plan Review application, the turbine locations are shown with a 1,000 ft. radius depicted from Turbines #1 and #4 to the nearest residence. This distance is measured from the turbine tower base. On the complete Site Plan submitted on 9/23/2010, the setbacks, both to existing residences and to the property lines, were measured to the turbine tower base. To be as conservative as possible, American Pro Wind made sure that the setback minimum requirements were also met when measured to the closest edge of the tower turbine base (and not to the center point). This had the effect of slightly extending the setbacks.

We hope this makes clear both the intent and the industry standard of measuring the wind turbine setbacks from the turbine tower base. Please call if you have any questions. As you suggested, I will have Pam Brown follow up this email with a phone call to Adelle.

Respectfully submitted,

Rod Jané

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