ALLEGANY TOWN BOARD

Re: Draft "WIND ENERGY REGULATIONS" May 21, 2007

As a Northern NY Town Board Member who has spent over 2 years studying wind power issues, as well as having a graduate degree in physics I have several comments on your document.

THE 1000' setback from homes should be rigorously studied. This would probably cause problems among some town residents. Places such as England, France, Germany all having much more experience with wind turbines do not recommend setbacks less than 1 mile, 1000' setbacks from homes benefits ONLY the wind companies not permanent residents.

Your noise regulation of limiting increased noise allowable to resident to 3 Db is excellent and offers good protection to town residents. However why is it limited to within 1000' or 2.25 tower height? According to the draft version no homes, schools, churches etc. will be allowed within 1000'. A complete study of ambient noise (by someone with no ties to wind developers) should be completed before a single turbine is erected. In quiet rural areas 45 Db, particularly at night is much too loud. Night time ambient levels in rural NY usually run in the 25-30 Db. Range. Since the majority of sounds emitted by industrial wind turbines fall below 300 Hz. sound pressure measurements with a "C" weighted meter are more realistic than with an "A" weighted meter. Since "A" meters give lower Db. Readings wind developers insist on using them. A 3 Db increase at any location for any receptor is a limit that offers good protection.

Another serious problem with wind turbines sited too close to homes is that of shadow flicker. Shadow flicker is annoying at best and can cause medical problems at worst. Strobe like lights in the frequency range of 10-20 hz./min. have been clinically proven to trigger seizures. Both GE and Vestas turbines commonly used here in NY are fixed speed generators that are designed to operate at approx. 15 RPM'S.Shadow flicker can extend to 3000'. This is another reason to revisit 1000' setbacks from residences. (Enclosed find the "Evaluation of Environmental Shadow Flicker" the analysis for the Dutch Hill Wind Project Cohocton, NY)

There could be problems having differing setbacks from roads than from residences. A 1.5 times turbine height (ballpark 600°) A road 600° from an industrial wind turbine is a potential danger to people using the roadway. Ice throw is a real danger. Maximum ice throw distance is given by the formula: MAX. DIST. = 1.5 (H + Dia.); where H is the hub height and Dia. Is the diameter of the blades.

A common turbine configuration of a 265' tower, 120' blades (giving a 240' blade diameter) has a potential for ice throws of over 750'. Throws approaching this distance have actually been measured for chunks exceeding 1 lb. A 1 lb. piece of ice falling from 400'would have an impact speed of over 100 MPH. Potentially deadly.

A 2nd problem w/ 600' road setbacks is 1000' from turbines become unbuildable thereby devaluing. Town road frontage.Each 1000' setback effectively renders over 70 acres undevelopable.

If anyone has questions I can be reached at:

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