

Date: February 8, 2011

To: Senate Community Affairs Committee

Re: "The Social & Economic Impact of Rural Wind Farms"

From: Mark J. Cool

Honorable Members,

My name is Mark Cool. I reside at

. I am 52 years old. I live 1629 ft(496 meters) from the Falmouth wind turbine #1, named Wind1 in our community. Wind1 is a Vestas V82, standing 398 ft (121m) tall (tip height) with a rotor diameter 269 feet (82m).

Since the Falmouth Waste Water Treatment Facility Wind1 turbine became operational in April of 2010:

A. Health effects

Frequent and long duration headaches never before experienced, not associated with the flu, cold symptoms or excessive alcohol consumption  
Disturbed sleep in terms of changed sleep in the number of awakenings during the night and quality of that sleep  
-The after-effects during the day following disturbed sleep have caused lack of energy, moodiness and have impacted memory abilities

B. Excessive Noise and Vibration Concerns

- I am an air traffic controller (31 years). I second guess life critical decisions when I work. Where as, before the turbine, I didn't allow second guessing to distract me from the job at hand. I was confident and a good controller. Since the turbine, I'm indecisive and struggling. The NTSB (National Transportation Safety Board) mandates pilots and controllers an allowance of a minimum of 8 hours "stress-free" non-operational time between flight/control operations. The turbine is forcing me from compliance because of sleep deprivation and the added stress of wondering if I'll sleep tonight. If my sleep is disturbed, I become anxious about the toll it will take on the subsequent days performance. I have been forced into my basement where I've made a make-shift bedroom. It is here I am less impacted, less stressed. It is only in my basement I get a good nights sleep and thereby am able to be adequately prepared to perform as an air traffic controller. My concern is, as a property owner and taxpayer, should I be forced to redesign sleeping accommodations in my own home?

- My solace from air traffic control stress has been my 2 acres of gardens that are surrounded by town owned conservation lands. Since Wind1, I suffer pressure headaches when in the yard and while wind directions are from the north-northeast. Wind velocities do have an effect (stronger winds, produce the onset of headache more rapidly)  
The best description is akin to the pressure experienced just before

your ears pop while an aircraft climbs or descends through pressure altitude. The "pop", in the case of being a passenger, offers relief. , relief is gained not by a "pop" of my ears, rather, by being chased from my gardens to the relief offered by my basement. It's awfully difficult to garden from my basement. I have found that chewing gum does mitigate the severity of the pressure. I never had been a gum chewer until April 2010.

- Vibrations seemly have started causing a structural effect on my house (built in 1988). The topography of the land is that of a glacial moraine. Vibrations have caused the crown molding and molding adorning the dining room chandelier to fall or become detached. Also in that room, the drywall nail heads have started to become exposed. The latex paint pliability, so far, prevents the nail heads puncturing the paint coats. It is unique in that this is the only room presenting these symptoms. The dining room is at the center of the house, neither closest to, or furthest away from, the turbine.

-Impact of turbines too often are classified under 'quality of life' rather than illness issues. This may or may not be. Build industrial turbines 1629 feet (496m) from service critical personnel. Build them next to the residence of your emergency room doctors and nurses, your firemen and policemen, your legislators and your servicemen and women. Then ask yourself, who's quality of life are we talking about? All those occupations listed make life altering decisions for the public. Decisions, good or bad, are in good measure correlated to the quality and quantity of sleep one receives.

#### C. Property Value

-Despite all the industry claims to the contrary, significant value impacts have occurred, and have resulted in the abandonment of homes, as well as nuisances, health problems, etc. My wife, Annie Hart Cool, is one of the Cape and Islands top sales agents. She has contacted real estate agents and real estate appraisers throughout Canada, West and Midwestern states in the US, they all agree, never has it been to such a widespread and consistent degree that a series of similar, negative reports coming from residents living by any other type of facility. The depreciation of property value as consequence of wind turbine siting, is an observable trend in the market, both for owner-occupants and the home-buying market. A wind project sited poorly is has raped the return on a 20 year investment.

#### D. Interface with Planning and Implementation and Control Authorities

-I have sent numerous letter to our State Governor, State Health Commissioner, State Environmental Protection Agent, as well as my district State legislators. Their responses have been none existent. The County authority has been taking public comment while they develop Minimum Performance Standards for the region. The County's initial proposal was much too lenient, allowing unchecked wind farm industrialization. Newer standards are now under public scrutiny. My commentary is that, though the revised standards are better, written loop-holes left therein, allow manipulative opportunity for developers. A standard is a minimum.

-Locally, our Planning board has pressed for a 1 year moratorium on

future turbine projects in Falmouth. However, the attention my neighborhood has brought to bear on town hall, stands to make little effect of those turbines already operational. Wind1 was the first erected in Falmouth and is the source of my greatest discontent. An on going issue has been entertained by our Zoning Board of Appeal. Wind1 is sited on municipally owned property. That municipally owned property is a "public use" district. On that parcel is the Town's Waste Water Treatment Plant (WWTP). The Building Commissioner interpreted the town bylaw application to Wind1 as a "by right" use. Wind1 satisfies all power demand of the WWTP and the remaining 2/3 excess power is sold to the private utility provider (NStar). In turn, the surplus energy dollar amount offsets the remoted municipal energy use. All serving the public purpose.

The appeal examines whether the character of this newly introduce function is that of a principal or accessory use to that of the WWTP. This determination will steer the course for the ill effected neighbors. If deemed an accessory, Wind1 will be subject to a Special Permitting process and open for public concern and comment. This procedure was never made available before, due to the Building Commissioners "by right" determination.

In conclusion, the process of educating decision makers has been very very slow. As new information becomes available, it appears the private citizen has become the watch-dog checker on credible data and information. This begs the question, what are those government officials, entrusted to do this very job, doing? It shouldn't be this way. It shouldn't be this way in societies like Australia and the US, where democracy protects the people.

Respectfully,

Mark J. Cool