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Testimony RE: HOUSE BILL 6249:

AN ACT ESTABLISHING A MORATORIUM ON THE SITING OF WIND PROJECTS UNTIL THE ADOPTION OF REGULATIONS

Madam Chairman and Members of the Energy Committee:

My name is Jeffrey J. Tinley. I practice law with the firm of Tinley, Nastri, Renehan & Dost, LLP in Waterbury, CT. We are counsel to Save Prospect Corp.

I would like to address the Committee on the subject of turbine safety and setbacks. Turbine manufacturers as well as the scientific community have recognized that industrial wind turbines must be sited with extreme care to protect the public from the risks associated with ice throw, blade breakage and blade throw.

For example, while turbine manufacturer GE recommends "[l]ocating turbines a safe distance from any occupied structure, road, or public use area," GE and others recognize that there is no clear formula to determine a "safe" distance and that "actual distance is dependent upon turbine dimensions, rotational speed and many other potential factors."[1]

Similarly a white paper prepared by a team of physicists from the University of California, Davis,[2] surveyed the existing literature addressing blade throw risks and reached the following conclusions:

- "None of the analyses have been validated with actual failures."
- "The literature . . . does not offer any guidance for applying setback distances that would be used for wind energy planning."

Dr. Terry Matilsky, Professor of Physics and Astronomy at Rutgers University, has concluded that a setback distance of 1.5 times blade height – a rule of thumb often cited by

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[1] Wahl and Giguere, "Ice Shedding and ICE Throw – Risk and Mitigation," GE Energy, Greenville, SC.

[2] Larwood, "Permitting Setbacks for Wind Turbines in California and the Blade Throw Hazard," California Wind Energy Collaborative, University of California, Davis (June 16, 1995)

developers of wind farms – appears to have been "just pulled out of a hat." He notes that as the problem has been studied with more care, the suggested setback distances have increased significantly. Professor Matilsky has calculated the potential range of a blade fragment throw at 1680 feet.[3]

You have already heard that numerous homes, businesses, and State Route 69 are well within this distance of the proposed wind turbine site in Prospect. Thus, safe setback distance is a subject that most definitely requires further careful study and regulation to protect public health and safety.

As Professor Matilsky states, "there are some problems with wind turbines that have unavoidable consequences." But, the risk of injury associated with blade throw can be eliminated "if you just adopt a conservative value for your setbacks." This basic wisdom is echoed in one of the early papers on the subject of ice throw, which concluded:

> ***Each incident or accident caused by ice throw is an unnecessary event* and *will decrease the public acceptance of wind energy.***[4]

Government has no higher duty than to protect the health and safety of its citizens. Regulations incorporating responsible setback requirements adopted after careful study will both protect public health and safety and promote public acceptance of wind energy.

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[3] Matilsky paper available at: http://xray.rutgers.edu/-matilsky/windmills/throw.html

[4] Seifert, *et al.*, "Risk Analysis of Ice Throw from Wind Turbines" (Paper presented at BOREAS 6, April 9 to 11, 2003, Pyha, Finland) (Emphasis added).