H.677

Introduced by Representatives Potter of Clarendon, Browning of Arlington, Courcelle of Rutland City, French of Shrewsbury, Howrigan of Fairfield, Kilmartin of Newport City, Lewis of Derby, Malcolm of Pawlet, Marcotte of Coventry, McNeil of Rutland Town, Peaslee of Guildhall, Rodgers of Glover, Smith of Mendon and Wheeler of Derby

Referred to Committee on

Date:

Subject: Energy; permitting; public service board; Act 250; local land use bylaws; wind energy plant siting

Statement of purpose: This bill proposes to require standard setbacks, noise limits, and other requirements for wind energy plants that exceed 0.49 megawatts, to allow nearby property owners to waive these requirements, and to require that the Act 250 district commissions and appropriate municipal panels be the permit review authorities for wind energy plants not owned by Vermont electric utilities.

An act relating to wind energy plants
It is hereby enacted by the General Assembly of the State of Vermont:

* * * Standard Requirements * * *

Sec. 1. 30 V.S.A. § 8008 is added to read:

§ 8008. WIND TOWER SITING REQUIREMENTS; ENFORCEMENT

(a) Applicability. This section applies to a plant that generates electricity using wind energy as a fuel source and has a plant capacity in excess of 0.49 megawatts (MW). The requirements of this section shall apply to any proceeding for approval of such a plant under chapter 151 of Title 10, chapter 117 of Title 24, or section 248 of this title, in addition to all other applicable criteria.

(b) Definitions. As used in this section:

(1) “dBA” means a decibel measure of overall sound level under American National Standards Institute (ANSI) S1.4 that is designed to reflect the response of the human ear. Lower frequency sounds are given less weight than those in the mid-range of human perception. The resulting measure is said to be A-weighted, and the units are dBA.

(2) “dBC” means a decibel measure of overall sound level under ANSI S1.4 that is similar to dBA but does not de-emphasize low frequencies to the extent that dBA does. The resulting measure is said to be C-weighted, and the units are dBC.
(3) “Height” means the total distance measured from the grade of a property as it exists prior to the construction of a wind turbine or related facility at the base to the highest point of a wind turbine or related facility. In the case of a wind turbine, this includes the length of the blade at its highest possible point.


(5) “L_{90}” means background sound, defined over a continuous ten-minute period to be the average sound level during the quietest one continuous minute of the ten minutes. The term refers to sound that is normally present at least 90 percent of the time, and excludes any sound generated by a plant subject to this section. L_{90} may be measured relative to A-weighting or C-weighting, in which case it is denoted L_{A90} or L_{C90}.

(6) “L_{eq}” means frequency-weighted equivalent sound level. The term is defined to be the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound. L_{eq} may be measured relative to A-weighting or C-weighting, in which case it is denoted L_{Aeq} or L_{Ceq}. 
“Occupied building” means any structure that is or is likely to be occupied by persons or animals and includes dwellings, commercial buildings, other business structures, hospitals, places of worship, schools, stables, and barns. This term shall include a structure on which construction has commenced at the time a complete application for a plant subject to this section is filed, if the structure otherwise meets the provisions of this subdivision (8).

“Rotor” means an element of a wind turbine that acts as a multibladed airfoil assembly extracting, through rotation, kinetic energy directly from the wind.

“Shadow flicker” means alternating changes in light intensity caused by the moving blade of a wind turbine casting shadows on the ground and stationary objects, such as a window at a dwelling.

“Wind turbine” means a mechanical device that captures the energy of the wind and converts it into electricity. The primary components of a wind turbine are the rotor or other component that extracts energy from the wind, the electrical generator, and the tower. This term does not include wiring to connect the wind turbine to the grid.

(c) Setbacks. At a minimum, a wind turbine shall be set back horizontally:
(1) One and one-quarter miles from an occupied building, if the
elevation change between the wind turbine and the occupied building is equal
to or less than 500 feet.
(2) Two miles from an occupied building, if the elevation change
between the wind turbine and the occupied building exceeds 500 feet.
(3) One-half mile from the closest boundary of the parcel on which the
wind turbine will be located.
(4) One-third of a mile from any public highway or right-of-way and
from any above-ground utility line or facility. However, this subdivision shall
not apply to an electric line that directly connects a wind turbine to a substation
or other utility facility.
(d) Sound limits. At a minimum, a plant subject to this section shall
comply with each of the following:
(1) Audible sound limit. No plant shall be located so as to generate
postconstruction sound levels that exceed preconstruction background sound
levels by more than 5 dBA.
(2) Low frequency sound limit. The $L_{\text{eq}}$ and $L_{\text{A90}}$ sound levels from a
wind turbine at the receiving property shall not exceed the lower of either:
(A) An $L_{\text{eq}} - L_{\text{A90}}$ greater than 20 dB outside any occupied building; or
(B) A sound level of 50 dBC ($L_{C90}$) from a wind turbine, without other ambient sounds, for a parcel the closest boundary of which is located one mile or more from a state highway or Class 1 or 2 town highway, or of 55 dBC ($L_{C90}$) for a parcel with a boundary closer than one mile to such a highway.

(3) General sound limit. Sound from a plant subject to this section shall not exceed 35 dBA within 30 meters of any occupied building.

(4) Demonstrating compliance with sound limits. Use of the Kamperman-James Guidelines shall be required in demonstrating compliance with the sound limits of this subsection.

(e) Other requirements.

(1) A plant subject to this section shall comply with the interconnection requirements of the Independent System Operator of New England, Inc. or the interconnection rules of the board, as applicable.

(2) The applicant shall perform and submit with the application an analysis of shadow flicker effect for each wind turbine and proposed measures to mitigate or eliminate such effect.

(3) Roads and power lines associated with the plant shall be the minimum feasible length as determined by the permitting authority. Rights-of-way for such roads and lines shall be the minimum feasible width as determined by the permitting authority.
(4) A wind turbine shall have no lighting except those lights necessary
to meet the requirements of the Federal Aviation Administration.

(5) The application shall include the depreciation schedule that the
applicant will use for each wind turbine and other component of a plant.

(6) The application shall include a plan for replacement or removal of
each wind turbine in the event of the turbine’s failure, including a failure due
to natural disaster.

(7) The application shall include a decommissioning and site restoration
plan containing the following information and meeting the following
requirements:

(A) The plan shall provide for the removal from the project parcels
and lawful disposal or disposition of all wind turbines and other structures, hazar-dous materials, electrical facilities, and all foundations. The plan shall
provide for the removal or appropriate supervision and control of all access
roads. The plan shall provide for the restoration of the project parcels to a
condition as close as reasonably possible to that which existed before
construction of the plant.

(B) The plan shall provide for the decommissioning of the site on the
expiration or revocation of the permit or abandonment of the plant. The plant
shall be deemed abandoned if its operation has ceased for 12 consecutive
months.
(C) The plan shall include provision for the posting of a third party bond to assure completion of decommissioning and site restoration, in the amount of the full estimated costs of decommissioning and site restoration adjusted for inflation and in accordance with the plan as approved by the permitting authority.

(D) The plan shall include written authorization from the applicant and all owners of all project parcels for each municipality in which the plant is located, the permitting authority, or a designee of such municipality or authority to access the project parcels and implement the decommissioning and site restoration plan, in the event that the permittee fails to implement the plan. The written authorization shall be in a form approved by the permitting authority and recorded in the land records of each municipality in which the plant is located.

(f) Waiver. A property owner may waive one or more of the requirements of subsections (c) and (d) of this section by signing a written waiver of rights. At a minimum, any such waiver shall:

(1) Itemize for the property owner each specific requirement for which waiver is sought.

(2) Include full disclosure of the potential impact on the property owner of waiving each such requirement.
(3) Describe the plant that will benefit from the waiver and state that, for such plant, consent is granted to waive each itemized requirement.

(4) Be recorded prior to operation of the plant in the land records of the municipality in which the burdened property is located. For the purpose of this subsection, “burdened property” is the real property of the person signing the written waiver. The recorded documents shall describe the properties benefited and burdened and advise all subsequent purchasers of the burdened property that the waiver shall run with the land.

(g) Enforcement. With respect to a plant described in subsection (a) of this section, any appropriate action may be instituted in the superior court of the county in which the plant is located to prevent, restrain, correct, or abate any violation of this section, of the statutes identified in subsection (a) of this section, or of the conditions of any permit or approval issued under those statutes. The following may institute such an action: a municipality in which a plant subject to this section is located; any person aggrieved by a plant’s violation of this section, of the statutes identified in subsection (a) of this section, or of a permit issued under one of those statutes; and the attorney general on his or her own motion or at the request of the department of public service, of the land use panel of the natural resources board, or of a municipality in which a plant subject to this section is located. This authority shall be in addition to any other enforcement statute applicable to the plant.
Sec. 2. 30 V.S.A. § 248 is amended to read:

§ 248. NEW GAS AND ELECTRIC PURCHASES, INVESTMENTS, AND FACILITIES; CERTIFICATE OF PUBLIC GOOD

(a)(1) No company, as defined in section 201 of this title, may:

(A) in any way purchase electric capacity or energy from outside the state, for a period exceeding five years, that represents more than one percent of its historic peak demand; or

(B) invest in an electric generation or transmission facility located outside this state unless the public service board first finds that the same will promote the general good of the state and issues a certificate to that effect.

(2) Except for the replacement of existing facilities with equivalent facilities in the usual course of business, and except for electric generation facilities that are operated solely for on-site electricity consumption by the owner of those facilities:

(A) no company, as defined in section 201 of this title, and no person, as defined in subdivision 6001(14) of Title 10, may begin site preparation for or construction of an electric generation facility or electric transmission facility within the state which is designed for immediate or eventual operation at any voltage; and
(B) No such company may exercise the right of eminent domain in connection with site preparation for or construction of any such transmission or generation facility, unless the public service board first finds that the same will promote the general good of the state and issues a certificate to that effect.

(C) This subdivision (2) shall not apply to each of the following:

(i) The replacement of an existing facility with an equivalent facility in the usual course of business.

(ii) An electric generation facility that is operated solely for on-site electricity consumption by the owner of the facility.

(iii) An electric generation plant that uses wind as a fuel source, exceeds 0.49 megawatts (MW) in plant capacity, and does not have majority ownership or control by a Vermont retail electricity provider. For the purpose of this subdivision (iii):

(I) “Plant,” “plant capacity,” and “retail electricity provider” have the same meaning as under section 8002 of this title.

(II) If more than one Vermont retail electricity provider has ownership or control of a facility, all such providers shall be treated together as one provider for the purpose of determining majority ownership or control.

* * *
Sec. 3. 10 V.S.A. § 6001 is amended to read:

§ 6001. DEFINITIONS

When used in this chapter:

* * *

(3)(A) “Development” means:

(i) The construction of improvements on a tract or tracts of land, owned or controlled by a person, involving more than 10 acres of land within a radius of five miles of any point on any involved land, for commercial or industrial purposes in a municipality that has adopted permanent zoning and subdivision bylaws.

(ii) The construction of improvements for commercial or industrial purposes on more than one acre of land within a municipality that has not adopted permanent zoning and subdivision bylaws.

(iii) The construction of improvements for commercial or industrial purposes on a tract or tracts of land, owned or controlled by a person, involving more than one acre of land within a municipality that has adopted permanent zoning and subdivision bylaws, if the municipality in which the proposed project is located has elected by ordinance, adopted under chapter 59 of Title 24, to have this jurisdiction apply.

(iv) The construction of housing projects such as cooperatives, condominiums, or dwellings, or construction or maintenance of mobile homes
or trailer parks, with 10 or more units, constructed or maintained on a tract or tracts of land, owned or controlled by a person, within a radius of five miles of any point on any involved land, and within any continuous period of five years.

(v) The construction of improvements on a tract of land involving more than 10 acres that is to be used for municipal, county or state purposes. In computing the amount of land involved, land shall be included that is incident to the use such as lawns, parking areas, roadways, leaching fields, and accessory buildings.

(vi) The construction of improvements for commercial, industrial, or residential use above the elevation of 2,500 feet.

(vii) Exploration for fissionable source materials beyond the reconnaissance phase or the extraction or processing of fissionable source material.

(viii) The drilling of an oil and gas well.

(ix) The construction, at any elevation, of improvements for an electric generation plant that uses wind as a fuel source, exceeds 0.49 megawatts (MW) in plant capacity, and does not have majority ownership or control by a Vermont retail electricity provider. For the purpose of this subdivision (ix):

(I) “Plant,” “plant capacity,” and “retail electricity provider” have the same meaning as under section 8002 of Title 30.
(II) If more than one Vermont retail electricity provider has ownership or control of a facility, all such providers shall be treated together as one provider for the purpose of determining majority ownership or control.

* * *

Sec. 4. 24 V.S.A. § 4414 is amended to read:

§ 4414. ZONING; PERMISSIBLE TYPES OF REGULATIONS

Any of the following types of regulations may be adopted by a municipality in its bylaws in conformance with the plan and for the purposes established in section 4302 of this title.

* * *

(3) Conditional uses.

(A) In any district, certain uses may be allowed only by approval of the appropriate municipal panel, if general and specific standards to which each allowed use must conform are prescribed in the appropriate bylaws and if the appropriate municipal panel, under the procedures in subchapter 10 of this chapter, determines that the proposed use will conform to those standards.

These general standards shall require that the proposed conditional use shall not result in an undue adverse effect on any of the following:

(i) The capacity of existing or planned community facilities.
(ii) The character of the area affected, as defined by the purpose or purposes of the zoning district within which the project is located, and specifically stated policies and standards of the municipal plan.

(iii) Traffic on roads and highways in the vicinity.

(iv) Bylaws and ordinances then in effect.

(v) Utilization of renewable energy resources.

(B) The general standards set forth in subdivision (3)(A) of this section may be supplemented by more specific criteria, including requirements with respect to any of the following:

(i) Minimum lot size.

(ii) Distance from adjacent or nearby uses.

(iii) Performance standards, as under subdivision (5) of this section.

(iv) Criteria adopted relating to site plan review pursuant to section 4416 of this title.

(v) Any other standards and factors that the bylaws may include.

(C) One or more of the review criteria found in 10 V.S.A. § 6086 may be adopted as standards for use in conditional use review.

* * *

(6) Access to renewable energy resources. Any municipality may adopt zoning and subdivision bylaws to encourage energy conservation and to
protect and provide access to, among others, the collection or conversion of
direct sunlight, wind, running water, organically derived fuels, including wood
and agricultural sources, waste heat, and geothermal sources, including those
recommendations contained in the adopted municipal plan, regional plan, or
both. The bylaw shall establish a standard of review in conformance with the
municipal plan provisions required pursuant to subdivision 4382(a)(9) of this
title.

* * *

(14) Green development incentives. A municipality may encourage the
use of low-embodied energy in construction materials, planned neighborhood
developments that allow for reduced use of fuel for transportation, and
increased use of renewable technology by providing for regulatory incentives,
including increased densities and expedited review.

(15) Merchant wind generation. A municipality may adopt bylaws to
regulate, as a conditional use under subdivision (3) of this section, an electric
generation facility that uses wind as a fuel source, exceeds 0.49 megawatts
(MW) in plant capacity, and does not have majority ownership or control by a
Vermont retail electricity provider.

(A) For the purpose of this subdivision (15):

(i) “Plant,” “plant capacity” and “retail electricity provider” have
the same meaning as under 30 V.S.A. § 8002.
(ii) If more than one Vermont retail electricity provider has ownership or control of a facility, all such providers shall be treated together as one provider for the purpose of determining majority ownership or control.

(B) In addition to the criteria of subdivision (3)(A) of this section, such bylaws shall include as criteria compliance with the requirements of 30 V.S.A. § 8008 and may include additional relevant criteria that are more stringent than state statute.

* * * Funding Municipal Review of Wind Plants * * *

Sec. 5. 24 V.S.A. § 4440 is amended to read:

§ 4440. ADMINISTRATION; FINANCE

* * *

(d)(1) The legislative body may establish procedures and standards for requiring an applicant to pay for reasonable costs of an independent technical review of the application.

(2) Notwithstanding whether the legislative body has established such standards and procedures, a municipality may allocate to an applicant the municipality's reasonable costs of review or participation or both in a proceeding if:

(A) The application is for a facility described in subdivision 4414(15) of this title.
(B) The application is for approval under chapter 151 of Title 10, 30 V.S.A. § 248, or chapter 117 of this title.

(C) The costs relate to the municipality’s review of the application or participation in a proceeding under the provisions identified in subdivision (2) of this subsection or an appeal from such a proceeding.

(3) When a municipality decides to allocate costs under subdivision (2) of this subsection, the municipality shall notify the applicant of the costs to be allocated and their purpose. Upon petition of an applicant to the body conducting the proceeding, that body shall review and determine, after opportunity for hearing, having due regard for the size and complexity of the proposed plant at issue, the necessity and reasonableness of such allocation, which it may amend or revise. From time to time during the progress of the work, the municipality shall render to the applicant detailed statements showing the amount of money expended or contracted for in the work, which statements shall be paid by the applicant to the municipality at such time and in such manner as the municipality may reasonably direct. A municipality may require an applicant to pay an estimated cost in advance of the work being performed, provided that any unused portion of such payment is returned to the applicant within 30 days of final disposition of the proceeding, including any appeals.
**Health Department Role**

Sec. 6. 18 V.S.A. § 12 is added to read:

§ 12. SOUND LIMITS; WIND PLANTS; PERIODIC REVIEW

Every second December 31, the commissioner of health shall report to the house and senate committees on natural resources and energy on whether the sound limits contained in 30 V.S.A. § 8008(d) are appropriate to protect public health and whether those limits should be amended. The basis of the report shall include developing science and actual, on-the-ground experience with respect to wind plants of the type that are subject to 30 V.S.A. § 8008 and their impacts on persons and animals. The report shall include recommended statutory language for any amended limits and state the reasons for any proposed amendments.

Sec. 7. HEALTH; SOUND LIMIT REPORT; INITIAL DATE

With respect to the report required by Sec. 6 of this act, the commissioner of health shall submit the initial report by December 31, 2010.

Sec. 8. EFFECTIVE DATE

This act shall take effect on passage.