



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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February 22, 2012

Mary E. Mintel
Reid and Riege, P.C.
One Financial Plaza
Hartford, CT 06103

RE: Freedom of Information Act Request (Your letter dated February 16, 2012)

Dear Ms. Mintel:

The Connecticut Siting Council (Council) is in receipt of your Freedom of Information Request dated February 16, 2012. The Council replies to your requests as follows:

1. You requested drafts of the "Proposed Wind Regulations" referenced under "Administrative Matters" in the Revised Agenda for the Council Energy/Telecommunications Meeting held on February 16, 2012. Enclosed please find a copy of the *draft* Proposed Wind Regulations and a copy of the *draft* Notice of Intent to Adopt Regulations that the Council would have voted to approve for publication in the Connecticut Law Journal had the administrative matter not been tabled by the Council during the meeting held on February 16, 2012.
2. You requested documents in relation to the process of drafting, the proposed content of such regulations and communications with consultants and legislators about such regulations from October 1, 2011 through the present date. Enclosed please find the following:
 - a. E-mail correspondence from Stephen Moriarty to CSC, dated October 5, 2011;
 - b. E-mail correspondence between Bob Kaliszewski and Mr. Riley forwarded to CSC, dated October 5, 2011;
 - c. E-mail correspondence from David Savage to Melanie Bachman dated October 12, 2011;
 - d. E-mail correspondence from Adam Cohen to Lisa Fontaine dated October 17, 2011;
 - e. E-mail correspondence from Melanie Bachman to Sandy Breslin dated October 29, 2011;

- f. E-mail correspondence from Tracy Persico to Melanie Bachman dated November 14, 2011;
 - g. E-mail correspondence from Francis Pullaro to Melanie Bachman dated December 13, 2011;
 - h. E-mail correspondence from Lisa Fontaine to Adam Cohen, dated February 10, 2012;
 - i. E-mail correspondence from Dr. Roy and Andrea Hitt to the Council, dated February 8, 2012 re Health Concerns Confirmed – Carl Phillips, PHD;
 - j. E-mail correspondence from Dr. Roy and Andrea Hitt to the Council, dated February 8, 2012 re Wind Regulations Science/Health Analysis.
3. You requested documents in regard to the regulation –making record concerning the adoption of wind energy regulations. Enclosed please find the following:
- a. Letter from Mayor Chatfield of Prospect dated August 12, 2011;
 - b. Notice of Special Meeting, Public Forum on the Adoption of Wind Regulations, dated September 23, 2011;
 - c. Memo to Classified/Legal Supervisor of various newspapers re Wind Regulation Notice, dated September 23, 2011;
 - d. Press Release re Public Forum on the Adoption of Wind Regulations;
 - e. Regulation-Making Requirements under the Uniform Administrative Procedure Act;
 - f. Public Act 11-245;
 - g. Letter from Representative Mary Fritz, dated October 19, 2011;
 - h. Letter from Northeast Utilities System, dated October 13, 2011;
 - i. E-mail from John Johannemann dated October 13, 2011;
 - j. Written Testimony from Joyce Hemingson dated October 13, 2011;
 - k. Written Testimony from Stella Somers dated October 13, 2011;
 - l. Written Testimony from RENEW, dated October 13, 2011;
 - m. Letter from Dr. David Lawrence and Jeannie Lemelin dated October 12, 2011;
 - n. Letter from Susan Murray dated October 13, 2011;
 - o. E-mail from Kathleen Wilson, dated September 28, 2011;
 - p. E-mail from Dr. Roy and Andrea Hitt dated September 25, 2011;
 - q. E-mail from Bernard Adams dated September 26, 2011;
 - r. North Canaan Draft Wind Energy System Regulations dated March 14, 2011;
 - s. Letter from Senator Kevin Witkos, dated October 12, 2011;
 - t. Sign-up Sheets from Wind Public Forum dated October 13, 2011;
 - u. Memo from Linda Roberts dated October 18, 2011 re Notice of receipt of transcript;
 - v. Official Transcript of Wind Public Forum, October 13, 2011.
4. The Council has no correspondence in regard to any firm hired to consult or advise the Siting Council regarding the adoption of wind energy regulations from October 1, 2011 through the present date.

February 22, 2012

FOIA Request
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Enclosed please find copies of the requested correspondence.

Very truly yours,

Linda Roberts ^{NAB}

Linda Roberts
Executive Director

LR/MAB/cm

cc: Assistant Attorney General Robert L. Marconi
Wind Regulations Service List

CONNECTICUT SITING COUNCIL DRAFT WIND REGULATIONS

Section 1. Section 16-50j-2a of the Regulations of Connecticut State Agencies is amended to read as follows:

Sec. 16-50j-2a. Definitions. As used in these rules, except as otherwise required by the context:

(NEW) (3) “Blade length” means the distance between the blade tip and the center of a wind turbine hub.

(NEW) (10) “Customer-side distributed resources project” means a project designed to utilize “customer-side distributed resources” as defined under Section 16-1 of the Connecticut General Statutes.

(NEW) (13) “Grid-side distributed resources project” means a project designed to utilize “grid-side distributed resources” as defined under Section 16-1 of the Connecticut General Statutes.

(NEW) (16) “Hub” means the central part of a wind turbine that supports the turbine blades on the outside and connects to the rotor shaft inside the nacelle.

(NEW) (21) “Nacelle” means the structure at the top of a wind turbine tower behind or in front of the wind turbine blades that houses the key operational components of the wind turbine including, but not limited to, the rotor shaft, gearbox, controller, brake and generator.

(NEW) (27) “Rotor” means the part of a wind turbine that consists of the blades and the hub.

(NEW) (28) “Shadow flicker” means the intermittent shadows created by the wind turbine blades passing through the light of the sun.

(NEW) (34) “Wind turbine” means a device that converts wind energy to electricity.

(NEW) (35) “Wind turbine height” means the measurement from ground level to the tip of the blade in the vertical position.

(NEW) (36) “Wind turbine tower” means the base structure that supports a wind turbine rotor and nacelle.

(NEW) (37) “Wind turbine tower base” means the top of the foundation or equivalent surface that shall bear the load of a wind turbine tower.

(NEW) (38) “Wind turbine tower height” means the measurement from ground level to the top of the hub.

Statement of Purpose: The proposed amended regulation adopts definitions of terms specific to wind turbines. Pursuant to Public Act 11-245, the Council is required to adopt regulations for the siting of wind projects.

The main provisions of the amended regulation add definitions of wind turbine-specific terms.

The proposed amended regulation would not impact existing regulations or other law.

Statutory authority: Public Act 11-245; Conn. Gen. Stat. §16-50j(g)

Fiscal impact: There will be no fiscal impact due to the addition of this section.

ARTICLE 7
RENEWABLE ENERGY FACILITIES
Part 1
WIND TURBINES

<u>FINDING</u>	16-50j-92
<u>REQUIREMENT FOR A HEARING</u>	16-50j-93
<u>APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED</u>	16-50j-94
<u>PETITION FOR A DECLARATORY RULING</u>	16-50j-95
<u>ADDITIONAL INFORMATION REQUIRED</u>	16-50j-96
<u>CONSIDERATIONS FOR DECISION</u>	16-50j-97
<u>REQUIREMENT FOR A DEVELOPMENT AND MANAGEMENT (D&M) PLAN</u>	16-50j-98

Sec. 2. The Regulations of Connecticut State Agencies are amended by adding **Section 16-50j-92** as follows:

(NEW) Sec. 16-50j-92. Finding. Pursuant to Section 16-50i (a) (3) of the Connecticut General Statutes, the Council finds that each wind turbine and its associated equipment, except for a wind turbine that is owned and operated by a private power producer, is a qualifying small power production facility under the Public Utilities Regulatory Policies Act of 1978, as amended, or a facility determined by the Council to be primarily for a producer's own use, and has a generating capacity of 1 megawatt or less, and except as specified in Section 16-50j-57 of the Regulations of Connecticut State Agencies, may have a substantial adverse environmental effect and therefore is a facility, and any

modification, as defined in Section 16-50j-2a of the Regulations of Connecticut State Agencies, to an existing facility, except as specified in Section 16-50j-57 of the Regulations of Connecticut State Agencies, may have a substantial adverse environmental effect.

Statement of Purpose: The proposed new regulation adopts a framework for Council review of wind turbine facilities and associated equipment to determine whether proposals will have a substantial adverse environmental effect and provides a concise statement of the Council's jurisdictional authority concerning the siting of wind turbine facilities.

The main provisions of the proposed regulation specifically describe the Council's jurisdictional authority concerning wind turbine facility sites and modifications.

The proposed new regulation would not impact existing regulations or other law.

Statutory authority: Public Act 11-245; Conn. Gen. Stat. §16-50j(g)

Fiscal impact: There will be no fiscal impact due to the addition of this section.

Sec. 3. The Regulations of Connecticut State Agencies are amended by adding **Section 16-50j-93** as follows:

(NEW) Sec. 16-50j-93. Requirement for a hearing. Any application for a certificate for a wind turbine facility and any petition for a declaratory ruling for a wind turbine facility pursuant to Section 16-50k of the Connecticut General Statutes shall require a public hearing. The provisions of Sections 16-50j-13 to 16-50j-34, inclusive, of the Regulations of Connecticut State Agencies shall govern the practice and procedure of the Council in any hearing concerning an application for a certificate and a petition for a declaratory ruling for a wind turbine facility.

Statement of Purpose: The proposed new regulation requires the Council to hold a public hearing for any application for a certificate or petition for a declaratory ruling filed for a proposed wind turbine facility. Subdivision (2) of Subsection (a) of Public Act 11-245 requires that the wind regulations require a public hearing for any proposal submitted to the Council, including wind projects submitted to the Council as a petition for declaratory ruling under Section 16-50k of the Connecticut General Statutes.

The main provisions of the proposed regulation require a public hearing be held for all wind projects over which the Council has jurisdiction.

The proposed new regulation would impact, but not change, existing regulations and other law related to petitions for declaratory rulings, such as Conn. Gen. Stat. §16-50k(a) and Conn. Gen. Stat. §4-176(e), by requiring a hearing be held on a petition for a declaratory ruling. Under Conn. Gen. Stat. §4-176(e), within sixty days after receipt of a petition for a declaratory ruling, the Council shall act in accordance with one of five dispositions: 1) issue a ruling, 2) order the matter set for a hearing, 3) issue a ruling by a specified date, 4) initiate regulation-making proceedings, or 5) decide not to issue a ruling. The proposed new regulation would require the Council to order the matter set for

a hearing rather than have the discretion to consider the other four possible dispositions. Under Conn. Gen. Stat. §16-50k(a), “the Council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling... (B)... any... grid side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Environmental Protection.” The proposed new regulation would require the Council to order the matter set for a hearing rather than have the discretion to consider the other four possible dispositions pursuant to Conn. Gen. Stat. §4-176(e).

Statutory authority: Public Act 11-245; Conn. Gen. Stat. §16-50j(g)

Fiscal impact: There will be a fiscal impact due to the addition of this section. If a public hearing is required for a petition for a declaratory ruling, this will increase staff hours, meal and travel reimbursements, increase expenditures related to per diem payments (\$200 per event or day), meal and travel reimbursements for the Council members, incur costs for publication of notice, consultant fees, transcription and audio services. However, costs associated with staff hours, Council expenditures and services are invoiced directly to the project proponent and therefore, are recoverable in full by the Council. The Council received three petitions for declaratory rulings for wind projects in late 2010. Total invoice amounts for Petition 980 were \$92,873.80, total invoice amounts for Petition 983 were \$43,495.91 and total invoice amounts for Petition 984 were \$41,101.25.¹ The average total invoice amount of the three petitions is \$59,156.99.

Sec. 4. The Regulations of Connecticut State Agencies are amended by adding **Section 16-50j-94** as follows:

(NEW) Sec. 16-50j-94. Application for a Certificate of Environmental Compatibility and Public Need. Pursuant to Section 16-50k of the Connecticut General Statutes, any person seeking to construct, operate and maintain a customer-side distributed resources wind turbine facility with a capacity of more than 65 megawatts or a grid-side distributed resources wind turbine facility with a capacity of more than 65 megawatts shall file an application for a certificate. The application shall be filed with the Council in accordance with the filing requirements of Section 16-50j-59 of the Regulations of Connecticut State Agencies and Sections 16-50j-1 to 16-50j-5, inclusive, of the Regulations of Connecticut State Agencies. The application filed with the Council shall also include, but not be limited to, additional information required to be submitted to the Council as part of the application under Section 16-50j-96 of the Regulations of Connecticut State Agencies. A motion for protective order may be filed with the Council for any information that may qualify as proprietary or critical energy infrastructure information pursuant to Subsection (d) of Section 16-50j-22a of the Regulations of Connecticut State Agencies.

¹ These calculations are based on the average invoice totals for Council review of Petition Nos. 980, 983 and 984 filed by BNE Energy, Inc. in late 2010 pursuant to C.G.S. §16-50v. These totals do not include invoices for the Development and Management Plan process under Section 16-50j-97 of the Regulations of Connecticut State Agencies. A separate fiscal estimate has been prepared for that section.

Statement of Purpose: The proposed new regulation adopts filing requirements for wind turbine facilities that have a capacity of more than 65 megawatts that require a certificate of environmental compatibility and public need pursuant to Section 16-50k of the Connecticut General Statutes. Subparagraph (D) of Subdivision (1) of Subsection (a) of Public Act 11-245 requires that the wind regulations contain different requirements for projects of different sizes.

The main provisions of the proposed regulation describe filing requirements for an application for a certificate for a wind turbine facility and refer to sections of the regulations that govern application filing requirements.

The proposed new regulation would not impact existing regulations or other law.

Statutory authority: Public Act 11-245; Conn. Gen. Stat. §16-50j(g)

Fiscal impact: There will be no fiscal impact due to the addition of this section.

Sec. 5. The Regulations of Connecticut State Agencies are amended by adding **Section 16-50j-95** as follows:

(NEW) Sec. 16-50j-95. Petition for a Declaratory Ruling. Pursuant to Subsection (a) of Section 16-50k of the Connecticut General Statutes, any person seeking to construct, operate and maintain a customer-side distributed resources wind turbine facility or a grid-side distributed resources wind turbine facility with a capacity of not more than 65 megawatts shall file a petition for a declaratory ruling. The petition for a declaratory ruling shall be filed with the Council in accordance with the filing requirements of Sections 16-50j-38 to 16-50j-40, inclusive, of the Regulations of Connecticut State Agencies. The petition for a declaratory ruling filed with the Council shall also include, but not be limited to, additional information required to be submitted to the Council as part of the petition under Section 16-50j-96 of the Regulations of Connecticut State Agencies. A motion for protective order may be filed with the Council for any information that may qualify as proprietary or critical energy infrastructure information pursuant to Subsection (d) of Section 16-50j-22a of the Regulations of Connecticut State Agencies.

Statement of Purpose: The proposed new regulation adopts filing requirements for wind turbine facilities that have a capacity of not more than 65 megawatts that are submitted as a petition for a declaratory ruling and may not require a certificate of environmental compatibility and public need pursuant to Section 16-50k of the Connecticut General Statutes. Subparagraph (D) of Subdivision (1) of Subsection (a) of Public Act 11-245 requires that the wind regulations contain different requirements for projects of different sizes.

The main provisions of the proposed regulation describe filing requirements for a petition for a declaratory ruling for a wind turbine facility and refer to sections of the regulations that govern petition filing requirements.

The proposed new regulation would not impact existing regulations or other law.

Statutory authority: Public Act 11-245; Conn. Gen. Stat. §16-50j(g)

Fiscal impact: There will be no fiscal impact due to the addition of this section.

Sec. 6. The Regulations of Connecticut State Agencies are amended by adding **Section 16-50j-96** as follows:

(NEW) Sec. 16-50j-96. Additional Information Required. In addition to the information required to be submitted to the Council as part of an application for a certificate for a proposed wind turbine facility in accordance with Section 16-50j-59 of the Regulations of Connecticut State Agencies and Sections 16-50l-1 to 16-50l-5, inclusive, of the Regulations of Connecticut State Agencies, and in addition to the information required to be submitted to the Council as part of a petition for a declaratory ruling for a proposed wind turbine facility in accordance with Sections 16-50j-38 to 16-50j-40, inclusive, of the Regulations of Connecticut State Agencies, the application or petition shall also include, but not be limited to, the following:

(a) Abutting properties map. The applicant or petitioner shall submit a map of sufficient scale that depicts the dimensions of the proposed site and any alternative sites, the names and addresses of abutting property owners and the dimensions of the abutting properties that clearly delineates the setback distance in feet from each of the proposed wind turbine locations and any alternative wind turbine locations for the proposed site and any alternative sites to each abutting property line.

(b) Visual Impact.

(1) Visual Impact Evaluation Report. The applicant or petitioner shall submit a visual impact evaluation report that analyzes the potential visibility of each of the proposed wind turbine locations and any alternative wind turbine locations for the proposed site and any alternative sites that includes, but is not limited to:

(A) A detailed description of the potential visibility of each of the proposed wind turbine locations and any alternative wind turbine locations for the proposed site and any alternative sites, including, but not limited to, a description of the potential visibility of the wind turbine heights, wind turbine tower heights and blade lengths, the sites, surrounding land uses, average tree canopy height and methodology used to evaluate visibility.

(B) A study area map for the proposed site and any alternative sites depicting the view-shed analyses study area radius used in accordance with Subparagraph (C) of this section that delineates the view-shed radius, site boundaries of the proposed and any alternative sites, and locations of the photographic simulations submitted in accordance with Subparagraph (D) of this section.

(C) View-shed analyses for the proposed site and any alternative sites depicting areas of potential year-round and seasonal visibility of each wind turbine, specifying the wind turbine heights, wind turbine tower heights and blade lengths, using a study area radius that is based on the wind turbine height of each of the proposed wind turbine locations and any alternative wind turbine locations at the proposed site and any alternative sites as follows:

- (i) less than 200 feet - 2 mile radius
- (ii) between 200 feet and 400 feet – 4 mile radius
- (iii) between 400 feet and 600 feet – 6 mile radius

(iv) greater than 600 feet – 8 mile radius

If the study area radius truncates any area of potential year-round and seasonal visibility, the applicant or petitioner shall expand the study area radius to include the entire area of potential visibility. The view-shed analyses shall depict the site boundaries of the proposed site and any alternative sites, the proposed wind turbine locations and any alternative wind turbine locations, town boundaries, and, as applicable, historic sites, historic districts, state and locally designated scenic roads, recreational areas, open space and conservation areas, schools, trails, forests, parks, and water resources.

(D) Photographic simulations from locations that may have potential seasonal and year-round visibility of each of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites, specifying the visibility of the wind turbine heights, wind turbine tower heights and blade lengths.

(E) Identification of any potential mitigation measures to minimize visual impact, including, but not limited to, paint color of the facility, vegetative screening and landscaping.

(2) State Historic Preservation Office Review. The applicant or petitioner shall submit the visual impact evaluation report to the State Historic Preservation Office, or its successor agency, for review. Any comments and recommendations received from the State Historic Preservation Office, or its successor agency, shall be submitted to the Council.

(c) Noise Evaluation Report. The applicant or petitioner shall submit a noise evaluation report for each of the proposed wind turbine locations and any alternative wind turbine locations at the proposed site and any alternative sites in accordance with the noise control regulations established by the Department of Energy and Environmental Protection under Sections 22a-69-1 to 22a-69-7, inclusive, of the Regulations of Connecticut State Agencies, as amended. The report shall include, but not be limited to, the following:

(1) A detailed description of the potential noise levels that would be generated by the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites, including, but not limited to, existing sound levels at the proposed site and any alternative sites, projected sound levels to be generated by the operation of the proposed wind turbines and any alternative wind turbines, the methodology used to monitor and evaluate sound levels, the wind turbine manufacturer's technical documentation of the noise emission characteristics of the proposed wind turbines and any alternative wind turbines, if available, and an analysis of compliance with the noise control regulations established by the Department of Energy and Environmental Protection, as amended.

(2) Calculations in accordance with the noise control regulations established by the Department of Energy and Environmental Protection, as amended, of projected maximum cumulative sound levels generated when the proposed wind turbines and any alternative wind turbines are in operation at the proposed site and any alternative sites measured at the property lines, projected maximum day-time and night-time sound levels

generated when the proposed wind turbines and any alternative wind turbines are in operation measured at the nearest receptors, and projected maximum levels of infrasonic sound, ultrasonic sound, impulsive noise and prominent discrete tones generated when the proposed wind turbines and any alternative wind turbines are in operation at the proposed site and any alternative sites measured at the nearest receptors.

(3) A study area map for the proposed site and any alternative sites depicting the noise analysis study area radius, site boundaries, sound level monitoring locations and nearest receptor locations.

(4) Identification of any potential mitigation measures to minimize sound levels at the nearest receptor locations, including, but not limited to, utilization of best practical noise control measures in accordance with Section 22a-69-1 of the Regulations of Connecticut State Agencies, as amended.

(d) Ice Drop and Ice Throw Evaluation Report. The applicant or petitioner shall submit an ice drop and ice throw evaluation report for each of the proposed wind turbine locations and any alternative wind turbine locations at the proposed site and any alternative sites that shall include, but not be limited to:

(1) A detailed description of the conditions at the proposed site and any alternative sites that may cause ice to be dropped or ice to be thrown, or both, from the wind turbine blades of the proposed wind turbines and any alternative wind turbines, the methodology used to evaluate and assess the risk of ice drop or ice throw, or both, and the wind turbine manufacturer's technical documentation relating to recommended ice drop and ice throw setback distances and installed ice monitoring devices and sensors, if available.

(2) Calculations in feet of the maximum distance that ice could be dropped from the wind turbine blades of each proposed wind turbine and any alternative wind turbines at the proposed site and any alternative sites when the wind turbines are stationary and calculations in feet of the maximum distance that ice could be thrown from the wind turbine blades for each proposed wind turbine and any alternative wind turbines at the proposed site and any alternative sites when the wind turbines are in operation.

(3) A study area map for the proposed site and any alternative sites depicting the ice throw study area radius, site boundaries and locations where ice could be dropped or locations where ice could be thrown from the wind turbine blades, or both, of each proposed wind turbine and any alternative wind turbines at the proposed site and any alternative sites when the wind turbines are stationary and in operation.

(4) Identification of any potential mitigation measures to minimize the risk, occurrence and impact of ice drop or ice throw, or both, from the wind turbine blades of each of the proposed wind turbines and any alternative wind turbines, including, but not limited to automatic and remote manual shutdown of the wind turbines.

(e) Blade Drop and Blade Throw Evaluation Report. The applicant or petitioner shall submit a blade drop and blade throw evaluation report for each of the proposed wind turbine locations and any alternative wind turbine locations at the proposed site and any alternative sites that shall include, but not be limited to:

(1) A detailed description of the conditions at the proposed site and any alternative sites that may cause a blade or any portion of a blade to be dropped or that may cause a blade or any portion of a blade to be thrown, or both, from each of the proposed wind turbines and any alternative wind turbines, the methodology used to evaluate and assess the risk of blade drop or blade throw, or both, and the manufacturer's technical documentation relating to recommended blade drop and blade throw setback distances and installed blade monitoring devices and sensors, if available.

(2) Calculations in feet of the maximum distance that a blade or any portion of a blade could be dropped from each of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites when the wind turbines are stationary and calculations in feet of the maximum distance that a blade or any portion of a blade could be thrown from each of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites when the wind turbines are in operation.

(3) A study area map for the proposed site and any alternative sites depicting the blade throw study area radius, site boundaries and locations where a blade or any portion of a blade could be dropped or locations where a blade or any portion of a blade could be thrown, or both, from each of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites when the wind turbines are stationary and when the wind turbines are in operation.

(4) Identification of any potential mitigation measures to minimize the risk, occurrence and impact of blade drop or blade throw, or both, from each of the proposed wind turbines and any alternative wind turbines, including but not limited to, automatic and remote manual shutdown of the wind turbines.

(f) Shadow Flicker Evaluation Report. The applicant or petitioner shall submit a shadow flicker evaluation report for each of the proposed wind turbine locations and any alternative wind turbine locations at the proposed site and any alternative sites that shall include, but not be limited to:

(1) A detailed description of the potential shadow-flicker producing features of each of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites, including, but not limited to, an analysis of conditions that may cause shadow flicker, the methodology used to evaluate shadow flicker and the manufacturer's technical documentation relating to shadow flicker, if available.

(2) Calculations from each proposed wind turbine and any alternative wind turbines at the proposed site and any alternative sites to each off-site occupied structure location within a one mile radius, including, but not limited to, the following:

- (A) distance in feet;
- (B) shadow length and intensity;
- (C) shadow flicker frequency;
- (D) specific times shadow flicker is predicted to occur; and
- (E) duration of shadow flicker measured in total annual hours.

(3) A study area map of the proposed site and any alternative sites depicting the shadow flicker analysis study area radius, site boundaries, locations of the proposed wind

turbines and locations of any alternative wind turbines, locations of off-site occupied structures, and areas of shadow flicker occurrence identified according to total annual hours.

(4) Identification of potential mitigation measures to minimize the impact of shadow flicker, including, but not limited to, vegetation, screening and fence construction.

(g) Natural Resource Impact Evaluation Report. The applicant or petitioner shall submit a natural resource impact evaluation report for the proposed site and any alternative sites that includes, but is not limited to, bird studies, bat studies, wetland studies, and terrestrial wildlife habitat studies. The report shall also include, but not be limited to:

(1) A detailed description of the potential natural resource impacts as a result of the construction, operation and maintenance of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites including, but not limited to, an analysis of:

(A) the topography, geology, vegetation, soil types, water resources, and avian and terrestrial wildlife habitat areas;

(B) compliance with air and water quality standards of the Department of Energy and Environmental Protection, as amended;

(C) compliance with the United States Fish and Wildlife Service recommended standards and guidelines, as amended; and

(D) compliance with the Department of Energy and Environmental Protection recommended standards and guidelines, as amended.

(2) Calculations based on the studies submitted in accordance with this subsection for the proposed site and any alternative sites that include, but are not limited to:

(A) potential number of bird fatalities;

(B) potential number of bat fatalities;

(C) total square feet of permanent wetland impacts;

(D) total square feet of temporary wetland impacts;

(E) total square feet of permanent terrestrial wildlife habitat impacts;

(F) total square feet of temporary terrestrial wildlife habitat impacts;

(G) total acreage of site disturbance;

(H) total acreage of site restoration;

(I) total volume in cubic yards of cut required; and

(J) total volume in cubic yards of fill required.

(3) A study area map for the proposed site and any alternative sites depicting the natural resource impact analysis study area radius, site boundaries and locations of, as applicable, important bird areas, bat hibernacula, terrestrial wildlife habitat, flood zones, wetlands and watercourses, forests, recreational areas, open space and conservation areas.

(4) Identification of potential mitigation measures to minimize natural resource impacts including, but not limited to, recommended protocols for protection of wetlands and wildlife, proposed open space or conservation areas, minimization of tree clearing, erosion and sedimentation controls, soil stabilization, re-vegetation and post-construction monitoring plans for avian and terrestrial wildlife.

(h) Decommissioning Plan. Any application for a certificate for a wind turbine facility or petition for a declaratory ruling for a wind turbine facility shall contain a decommissioning plan for the proposed site and any alternative sites that shall include, but not be limited to:

- (1) the projected useful life of the wind turbines;
- (2) identification of any circumstances that would trigger decommissioning of the facility in advance of the projected useful life of the wind turbines;
- (3) a detailed description of the method by which foundations, wind turbines, associated equipment and components will be dismantled and removed;
- (4) a detailed description of the method by which the site will be restored as near as possible to its original condition, including, but not limited to, stabilization, re-grading and re-vegetation; and
- (5) an estimate of the total cost of implementing the decommissioning plan calculated in present dollars and future dollars based on the projected useful life of the wind turbines.

Statement of Purpose: The proposed new regulation informs wind turbine applicants and petitioners of the wind turbine-specific information required to be submitted in applications for certificates and petitions for declaratory rulings for wind turbine facilities in addition to the information required to be submitted in accordance with Section 16-50j-59 and Sections 16-50l-1 to 16-50l-5, inclusive, of the Regulations of Connecticut State Agencies, and in accordance with Sections 16-50j-38 to 16-50j-40, inclusive, of the Regulations of Connecticut State Agencies. Subdivision (1) of Subsection (a) of Public Act 11-245 requires that the wind regulations include consideration of: setbacks, shadow flicker, decommissioning plan, ice throw, blade shear, noise and impact on natural resources.

The main provisions of the proposed regulation contain the requirements for Council consideration in the siting of wind projects specified in Public Act 11-245.

The proposed new regulation would not impact existing regulations or other law.

Statutory authority: Public Act 11-245; Conn. Gen. Stat. §16-50j(g)

Fiscal impact: There will be no fiscal impact due to the addition of this section.

Sec. 7. The Regulations of Connecticut State Agencies are amended by adding **Section 16-50j-97** as follows:

(NEW) Sec. 16-50j-97. Considerations for Decision. The Council shall render a decision on an application for a certificate or a petition for declaratory ruling for a proposed wind turbine facility in accordance with Sections 16-50g, 16-50k, 16-50p and 16a-35k of the Connecticut General Statutes, as amended. In making its decision to grant or deny a certificate or a petition for a declaratory ruling, the Council shall consider, but shall not be limited to consideration of, the following requirements:

(a) Setback Distances.

(1) Requirements. Any application for a certificate for a proposed wind turbine facility and any petition for a declaratory ruling for a proposed wind turbine facility shall include setback distances from each of the proposed wind turbine locations and any alternative wind turbine locations of not less than 1.1 times the wind turbine height from all property lines at the proposed site and any alternative sites or shall comply with the wind turbine manufacturer's recommended setback distances, whichever is greater. A copy of the wind turbine manufacturer's recommended setback distances shall be included in the application or petition, if available. In its discretion, the Council may require greater setback distances based on the results of any evaluation report submitted under Section 16-50j-96 of the Regulations of Connecticut State Agencies.

(2) Waiver of requirements. The minimum required setback distances for each of the proposed wind turbine locations and any alternative wind turbine locations at the proposed site and any alternative sites may be waived:

(A) by submission to the Council of a written agreement between the applicant or petitioner and abutting property owners stating that consent is granted to allow reduced setback distances, but in no case shall the setback distance from the proposed wind turbines and any alternative wind turbines be closer than 1.1 times the wind turbine height from any occupied residential building; or

(B) by a vote of the Council to waive the minimum required setback distances upon a showing of good cause, which includes, but is not limited to, abutting parcels with non-buildable configurations, abutting parcels with intervening topographical barriers and abutting parcels subject to development restrictions.

(b) Noise.

(1) Requirements. Noise levels generated by the operation of each of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites shall comply with the Department of Energy and Environmental Protection Noise Control Regulations under Sections 22a-69-1 to 22a-69-7, inclusive, of the Regulations of Connecticut State Agencies, as amended. In accordance with the Noise Control Regulations, the proposed site and any alternative sites shall be categorized as Class C industrial emitters and noise level measurements shall be taken at the property lines. A copy of any variance or partial variance from the provisions of the Noise Control Regulations granted by the Department of Energy and Environmental Protection under

Section 22a-69-7.1 of the Regulations of Connecticut State Agencies, as amended, shall be submitted to the Council with the application or petition.

(2) Waiver of Requirements. The required maximum noise levels generated by the operation of each of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites may be waived:

(A) by submission to the Council of a written agreement between the applicant or petitioner and property owner stating that consent is granted to allow excess day-time or night-time noise levels, or both, but in no case shall noise levels be greater than day-time levels of 61 dBA from the proposed wind turbines and any alternative wind turbines of the proposed site and any alternative sites at any occupied residential receptor and in no case greater than night-time levels of 51 dBA from the proposed wind turbines and any alternative wind turbines of the proposed site and any alternative sites at any occupied residential receptor; or

(B) by a vote of the Council to waive the noise level requirements upon a showing of good cause, which includes, but is not limited to, abutting parcels with non-buildable configurations, abutting parcels with intervening topographical barriers and abutting parcels subject to development restrictions.

(c) Shadow Flicker.

(1) Requirements. Shadow flicker shall not occur more than 30 total annual hours at any off-site occupied structure location from each of the proposed wind turbine locations and any alternative wind turbine locations at the proposed site and any alternative sites.

(2) Waiver of Requirements. The maximum total annual hours of shadow flicker generated by the operation of each of the proposed wind turbines and any alternative wind turbines at the proposed site and any alternative sites may be waived:

(A) by submission to the Council of a written agreement between the applicant or petitioner and property owner stating that consent is granted to allow excess total annual hours of shadow flicker; or

(B) by a vote of the Council to waive the total annual hours of shadow flicker requirements upon a showing of good cause, which includes, but is not limited to, abutting parcels with non-buildable configurations, abutting parcels with intervening topographical barriers and abutting parcels subject to development restrictions.

Sec. 8. The Regulations of Connecticut State Agencies are amended by adding **Sec. 16-50j-98** as follows:

(NEW) Sec. 16-50j-98. Requirement for a Development and Management (D&M) Plan. The Council shall require the preparation of a full or partial D&M Plan for a proposed wind turbine facility or modification of an existing wind turbine facility. The full or partial D&M Plan shall be prepared in accordance with the final decision rendered

by the Council and in accordance with Sections 16-50j-60 to 16-50j-62, inclusive, of the Regulations of Connecticut State Agencies.

Statement of Purpose: The proposed new regulation requires the submission of a full or partial Development and Management Plan to the Council for any proposed wind turbine facility or any modification to an existing wind turbine facility. Subparagraph (D) of Subdivision (1) of Subsection (a) of Public Act 11-245 requires that the wind regulations include different requirements for projects of different sizes.

The main provisions of the regulation require the preparation of a D&M plan and refer to sections of the regulations that govern D&M plans for energy facilities.

The proposed new regulation would not impact existing regulations or other law.

Statutory authority: Public Act 11-245; Conn. Gen. Stat. §16-50j(g)

Fiscal impact: There will be a fiscal impact due to the addition of this section. This will increase staff hours for review of the D&M plan. This provision will not require additional staff. In late 2010, the Council received 3 petitions for wind projects. One petition was denied. The Council received a D&M Plan for Petition 983 on September 16, 2011. The D&M was approved on November 17, 2011. The Council received a D&M plan for Petition 984 on October 21, 2011. The D&M was approved on December 15, 2011. Staff estimates that approximately 20 hours were expended in reviewing the D&M plans. For the two projects that were approved, an approximate total of 40 staff hours were expended reviewing the D&M Plans. At an average of \$37 per hour, the estimated cost for staff review of the two D&M Plans is approximately \$1,480 per year. However, costs associated with staff hours on specific projects are invoiced directly to the project proponent and therefore, are recoverable in full by the Council.

CONNECTICUT SITING COUNCIL

Notice of Intent to Adopt Regulations

In accordance with the provisions of subsection (a) of section 4-168 of the Connecticut General Statutes, as amended, notice is hereby given that the Connecticut Siting Council (Council), under the authority of Public Act 11-245, An Act Requiring the Adoption of Regulations for the Siting of Wind Projects, intends to adopt regulations relating to the siting of wind projects, Sections 16-50j-2a and 16-50j-92 to 16-50j-97, inclusive, of the Regulations of Connecticut State Agencies.

Statement of Purpose: The purpose of the proposed regulations is to adopt regulations, in accordance with the provisions of Chapter 54 of the Connecticut General Statutes, concerning the siting of wind turbines. Such regulations include, but are not limited to, consideration of setback distances, shadow flicker, decommissioning of facilities, requirements for projects of different sizes, ice throw, blade throw, noise and impact on natural resources. The regulations also include a requirement for a public hearing for all wind turbine projects.

A copy of the complete text of these proposed regulations, small business impact statement and regulatory flexibility analysis are available, at no cost, on the Council website at <http://www.ct.gov/csc>, at the Council's office located at 10 Franklin Square, New Britain, Connecticut 06051, or upon request by phone: (860) 827-2935, or by e-mail: siting.council@ct.gov.

Interested persons may submit comments, questions and concerns regarding these proposed regulations in writing within 30 days of the publication of this notice to the Connecticut Siting Council, Attention: Melanie Bachman, Staff Attorney, 10 Franklin Square, New Britain, Connecticut 06051. A hearing will be scheduled on the proposed regulations if requested by 15 persons, by a governmental subdivision of an agency or by an association having not less than 15 members, if notice of the request is received by the Council within 14 days after the date of publication of this notice.

When submitting correspondence to the Council, please refer to Wind Regulations.

Bachman, Melanie

From: Stephen Moriarty <theecoartisan@live.com>
Sent: Wednesday, October 05, 2011 7:01 PM
To: CSC-DL Siting Council
Subject: Code regulations for residential wind turbines

Dear Siting Council, I would like to recommend that the CT Siting Council make a statewide standard for the use of residential wind turbines. Many towns have nothing regarding the use of wind turbines. This seems to discourage the use by residents. For towns to get it on the books often takes months, if not years. Having a standard code ready for adoption by any town makes it easier for the town and the residents. My big question to you is what can I do to make this happen? Feel free to contact me at any time

**Thank you,
Steve Moriarty PH: (860)749-8710
24 Sidor Dr
Enfield CT 06082**

Bachman, Melanie

From: Roberts, Linda
Sent: Wednesday, October 05, 2011 3:33 PM
To: Bachman, Melanie
Subject: FW: Task Force for Wind Turbine Regulations - PA 11-245

FYI

From: Kaliszewski, Bob
Sent: Monday, October 03, 2011 9:07 AM
To: Esty, Daniel; Stratton, Jessie; Roberts, Linda
Subject: FW: Task Force for Wind Turbine Regulations - PA 11-245

FYI

From: Kaliszewski, Bob
Sent: Monday, October 03, 2011 9:02 AM
Subject: RE: Task Force for Wind Turbine Regulations - PA 11-245

Mr. Reilly, I wanted to make sure that you are aware of an upcoming opportunity to provide input on the development of regulations on Wind Turbines, prior to their being drafted. As you know the Siting Council is the lead on developing these regulations. DEEP will be providing input to the regulations development through our representatives on the Council, Brian Golembiewski and Larry Levesque. Both Brian and Larry will bring to the process experience and information from their respective expertise in environment and energy and will have access to subject matter experts at the Department. Please refer to the notice below. For further information please feel free to contact Linda Roberts, Executive Director at the Siting Council, contact information is listed in the notice.

**RE: NOTICE OF SPECIAL MEETING
PUBLIC FORUM ON THE ADOPTION OF WIND REGULATIONS**

The Connecticut Siting Council (Council) will hold a public forum on the adoption of regulations for the siting of wind projects on Thursday, October 13, 2011, beginning at 1:30 PM until 5:00 PM, and continuing from 6:30 PM until 9:00 PM in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

This will be an informal proceeding at which interested persons may make oral statements or submit written statements concerning the adoption of regulations for the siting of wind projects. For interested persons who would like to make oral statements, there will be a sign-up sheet near the entrance of the hearing room. Persons will be called to the podium in the order in which they signed up to speak. To ensure all interested persons have an opportunity to present their statements, each speaker should anticipate a time limit of approximately three minutes. Written statements may be submitted at the public forum, may be mailed to the Council office at 10 Franklin Square, New Britain, Connecticut 06051, or may be e-mailed to the Council at siting.council@ct.gov.

A verbatim transcript of the public forum will be made and deposited at the Council office. Please call the Council office with any questions or requests for interpreter services at 860-827-2935 by October 6, 2011.

10/11/2011

Bachman, Melanie

From: David Savage <david.savage@pioneergreen.com>
Sent: Wednesday, October 12, 2011 1:49 PM
To: Bachman, Melanie
Subject: RE: House Bill 6249 Rule-making

Very helpful – thanks!

From: Bachman, Melanie [mailto:Melanie.Bachman@ct.gov]
Sent: Wednesday, October 12, 2011 12:39 PM
To: 'David Savage'
Subject: RE: House Bill 6249 Rule-making

Hi David.

You may send something in writing at anytime before, during or after the meeting scheduled for tomorrow. Once the Council publishes notice of intent to adopt the wind regulations in the CT Law Journal, you may also send something in writing (you will receive an e-mail that contains the notice of intent at that time). I would suggest sending something sooner rather than later so that it will be useful to the Council as it prepares the draft regulations as you indicate below. So, maybe within one week of the public forum would be appropriate. I hope you find this helpful. Please let me know if I can be of any further assistance.

Thanks.

Melanie

Melanie A. Bachman
Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051
(860) 827-2951



From: David Savage [mailto:david.savage@pioneergreen.com]
Sent: Wednesday, October 12, 2011 1:33 PM
To: Bachman, Melanie
Subject: RE: House Bill 6249 Rule-making

Melanie:

I do actually now have a question about the wind regulation process and, specifically, the attached notice of the public forum tomorrow. We'll probably want to provide something in writing, and likely will e-mail it. I assume it is not necessary to send that before or during the meeting, but that it can come afterwards. Is that right and, if so, when can we send that and still be providing input when it is useful to the CSC as it prepares the proposal?

Thanks.

David

From: David Savage [mailto:david.savage@pioneergreen.com]
Sent: Tuesday, October 11, 2011 8:15 AM
To: 'Bachman, Melanie'
Subject: RE: House Bill 6249 Rule-making

Oh! Ok. Thanks. I see that now.

From: Bachman, Melanie [mailto:Melanie.Bachman@ct.gov]
Sent: Tuesday, October 11, 2011 8:14 AM
To: 'David Savage'
Subject: RE: House Bill 6249 Rule-making

David:

The notice you received today is completely unrelated to the wind regulations. It is in regard to revisions of our rules of practice that are contained in our regulations. There is another link on our website for "Regulations Revisions."

Melanie A. Bachman
Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051
(860) 827-2951



From: David Savage [mailto:david.savage@pioneergreen.com]
Sent: Tuesday, October 11, 2011 9:12 AM
To: Bachman, Melanie
Subject: RE: House Bill 6249 Rule-making

Melanie:

We got the e-mail notice today about the availability of the proposed wind regulations, but I don't see them on the CSC's website. Can you help me locate them?

Thanks very much.

David

Bachman, Melanie

From: Adam Cohen <adam.cohen@PioneerGreen.com>
Sent: Monday, October 17, 2011 11:47 AM
To: Fontaine, Lisa
Cc: Bachman, Melanie
Subject: RE: 10-13-11 PUBLIC FORUM WIND REGULATIONS

Thanks so much. Adam

From: Fontaine, Lisa [mailto:Lisa.Fontaine@ct.gov]
Sent: Monday, October 17, 2011 11:43 AM
To: 'Adam.cohen@PioneerGreen.com'
Cc: Bachman, Melanie
Subject: FW: 10-13-11 PUBLIC FORUM WIND REGULATIONS

Per your request, attached please find the transcripts for the wind public forum held on October 13, 2011.

Fontaine, Lisa

From: Bachman, Melanie
Sent: Saturday, October 29, 2011 9:18 AM
To: 'sbreslin@audubon.org'
Cc: Fontaine, Lisa
Subject: Re: Wind regulations Email contact

Good morning.

The comment period for the wind regulations is still open and will continue to be open throughout the regulations-making process under the Uniform Administrative Procedure Act. Draft regulations have not yet been promulgated. Notice of availability of the draft will be published in the CT Law Journal. We will add you to our distribution list so that you will receive notice via e-mail. Also, the draft will be posted on the Council website for the convenience of the public.

I am a frequent visitor of the Bent of the River as my parents are neighbors of the sanctuary.

If you have any further questions, please feel free to contact me.

Thank you.

Melanie Bachman

From: Breslin, Sandy [mailto:sbreslin@audubon.org]
Sent: Friday, October 28, 2011 05:38 PM
To: Bachman, Melanie
Subject: Wind regulations

Dear Attorney Bachman,

I am wondering if there is still an opportunity to provide comment on the drafting and adoption of CSC wind regulations called for by PA 11-245. I know the transcript has been received, but I am unsure if the comment period is still open.

In addition, I would like to confirm that draft regulations have not yet been promulgated.

Thank you for your assistance,

Sandy Breslin

Director of Governmental Affairs
Audubon Connecticut
185 East Flat Hill Road
Southbury, CT 06488
(203) 264-5098 x302 phone
(203) 264-6332 fax
(203) 804-0488 cell

Audubon Connecticut, the state organization of the National Audubon Society, works to protect birds, other wildlife and their habitats using education, science and conservation, and legislative advocacy for the benefit of people and the earth's biological diversity. Through our network of nature education centers, protected wildlife sanctuaries and local, volunteer chapters, we seek to connect people with nature and inspire the next generation of conservationists.

Bachman, Melanie

From: Persico, Tracy J. <TPersico@brownrudnick.com>
Sent: Monday, November 14, 2011 2:08 PM
To: Bachman, Melanie
Subject: RE: Proposed Amendments to Regs

Thank you!

From: Bachman, Melanie [mailto:Melanie.Bachman@ct.gov]
Sent: Monday, November 14, 2011 2:07 PM
To: Persico, Tracy J.
Subject: RE: Proposed Amendments to Regs

The wind regulations will not be a part of the hearing on 12/13. They are currently being drafted in consultation with DEEP and PURA. I don't know at this point when they will be made public.

Sorry.

Melanie

Melanie A. Bachman
Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051
(860) 827-2951



From: Persico, Tracy J. [mailto:TPersico@brownrudnick.com]
Sent: Monday, November 14, 2011 1:58 PM
To: Bachman, Melanie
Subject: RE: Proposed Amendments to Regs

Thank you for getting back to me so quickly. Is there a timeframe for when these regs will be made public? Will they still then be apart of the hearing on 12/13? How would that work?

Sorry for all the questions, I appreciate your time.

Tracy

From: Bachman, Melanie [mailto:Melanie.Bachman@ct.gov]
Sent: Monday, November 14, 2011 1:55 PM

To: Persico, Tracy J.
Subject: RE: Proposed Amendments to Regs

Hi Tracy.

You aren't missing anything. There is no language available for Article 7. That section will be forthcoming on its own. Article 7 is a placeholder in the table of contents. If you have any further questions, please let me know. Thanks.

Melanie

Melanie A. Bachman
Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051
(860) 827-2951



From: Persico, Tracy J. [mailto:TPersico@brownrudnick.com]
Sent: Monday, November 14, 2011 1:49 PM
To: Bachman, Melanie
Subject: Proposed Amendments to Regs

Hi Melanie -

I was just reviewing the CSC proposed Regulation amendments and wasn't sure if I was missing something - is there language available for the Article 7 - Renewable Energy Facilities (Wind Turbines) changes?

Thanks so much.

Tracy



Tracy J. Persico, Esq.
Director, Government Law & Strategies
Brown Rudnick LLP
City Place 1 185 Asylum Street
Hartford, CT 06103
T: 860.509.6584
F: 860.509.6684
tpersico@brownrudnick.com
www.brownrudnick.com

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Bachman, Melanie

From: fpullaro@renew-ne.org
Sent: Tuesday, December 13, 2011 10:45 PM
To: Bachman, Melanie
Subject: Re: Wind Regulations

Thank you.

On Dec 13, 2011, at 3:37 PM, "Bachman, Melanie" <Melanie.Bachman@ct.gov> wrote:

> Good afternoon, Francis.

>

> The Council did not publish notice of its intent to adopt wind regulations this month. There is a preliminary draft undergoing internal review at this time.

>

> Melanie A. Bachman

> Staff Attorney

> Connecticut Siting Council

> 10 Franklin Square

> New Britain, CT 06051

> (860) 827-2951

>

>

> -----Original Message-----

> From: fpullaro@renew-ne.org [mailto:fpullaro@renew-ne.org]

> Sent: Tuesday, December 13, 2011 1:23 PM

> To: Bachman, Melanie

> Subject: Wind Regulations

>

> Melanie,

>

> Did the Council publish its wind regulations this month?

>

> Francis

>

>

>

>

>

>

>

Fontaine, Lisa

From: Fontaine, Lisa
Sent: Friday, February 10, 2012 8:31 AM
To: 'Adam Cohen'
Cc: Bachman, Melanie
Subject: RE: CSC Agenda for 2/16/12

In regards to the action that is on the agenda for the February 16, 2012 energy/telecommunications meeting, the Council would just be deciding to publish a copy of the Notice of Intent to Adopt Regulations in the Connecticut Law Journal, not final adoption. This is the first step of the process - to give at least 30 days notice by publication in the Connecticut Law Journal.

From: Adam Cohen [mailto:adam.cohen@PioneerGreen.com]
Sent: Thursday, February 09, 2012 6:16 PM
To: Fontaine, Lisa
Subject: RE: CSC Agenda for 2/16/12

Thanks Lisa. Would they be approved for final adoption at this meeting or just a draft for comment? Thanks, Adam

From: Fontaine, Lisa [mailto:Lisa.Fontaine@ct.gov]
Sent: Wednesday, February 08, 2012 12:59 PM
To: 'Adam Cohen'
Subject: RE: CSC Agenda for 2/16/12

No, the proposed wind regulations will not be available prior to the meeting. If the Council votes to approve, we will post a copy on the website as soon as practicable.

From: Adam Cohen [mailto:adam.cohen@PioneerGreen.com]
Sent: Wednesday, February 08, 2012 12:43 PM
To: Fontaine, Lisa
Subject: RE: CSC Agenda for 2/16/12

Hey Lisa---is there a copy of the proposed wind regulations for adoption? Thank you in advance, Adam

From: Fontaine, Lisa [mailto:Lisa.Fontaine@ct.gov]
Sent: Wednesday, February 08, 2012 11:12 AM
To: Abigail Ahlborn; Alfred E. Smith, Esq., Murtha Cullina Richter & Pinney; Alisa Griggs/Glen Phillips; Alton Lenoce; Andrew Lord, Esq.; Andrew N. Davis, Esq., Leboeuf Lamb Green; Andy Kapi; Ann H. Sherwood Appalachian Mountain Club (awhorledpeas@aol.com); Anthony Fitzgerald; Beth Gilson; Beverly Hicking; Benito, Brian; Brian Henebry, Carmody and Torrance; Brian O'Neill; Burton B. Cohen, Esq.; Carlene Mercier, Brown Rudnick Freed & Gesmer; Carol Lorenz; Chad Blackiston SNET Mobility (Chad.Blackiston@SAI-Comm.com); Charles Carpinella, CT Municipal Electric Energy; Chris Gibson, NU; Christie Carpino (christie.carpino@housegop.ct.gov); Christopher B. Fisher, Esq., Cuddy & Feder & Worby; Cindy Fazendeiro, CT Water Company; Colin Tait; Colin Tait; Dan McGuinness, NW CT Council of Government; Daniel P. Lynch, Jr.; David Malko; Deanna Rhodes; Deborah Patterson; Dr. Floyd Lapp, FAICP; First Selectman, Town of Stafford; Franca L. DeRosa; Francis J. Collins, Esq.; Gabriel B. Stern, CT Municipal Electric Energy; H. William Davis, Jr. Town of Southbury; Hal Levy; Harold Hewett, Bechtel Tel. for AT&T Wireless; Henry Butun, PE; hilde@NU.COM; Hollis Redding; Hugh I. Manke, Updike, Kelly & Spellacy P.C.; Jim Rice; John Case; Judith Lagano, NRG Northeast Asset Manager; Julie Donaldson Kohler Esq. (jkohler@cohenandwolf.com); K. Gregoire, Brown Rudnick Berlack Israels LLP; Karina Fournier VoiceStream (karina.fournier@maxtontech.com); Kathleen Shanley, United Illuminating Company; Keith Coppins ;

Kenneth C. Baldwin; Kevin Case, Farmington River Watershed Assoc.; Kevin Flynn, Esq.; Kindall, Clare E.; Lee Hoffman; Liz Lacy, Farmington River Coordinating Com.; Logan Clark; Lucia Chiochio; Marconi, Robert L.; Margery Winters, Rivers Alliance of Connecticut; Michael Kozlik, Brown Rudnick; Michael Libertine; Michele G. Briggs, Springwichee; Mr. Lorenz; Patricia Widlitz, State Representative; Paul T. Tusch, Cacace Tusch & Santagata; Peter Gaewski, Regional Water Authority; Philip M. Small, Esq., Brown Rudnick Freed & Gesmer; Phillip T. Ashton; Rachel Mayo; Raymond Pietrorazio; Rista Malanca; Robert E. Carberry; Robert Silvestri, Wisvest-Connecticut, LLC; Ronald Clark, Connsult; S. Brodeur, Town of Canton; Sandy Carter, Verizon Wireless; Steve Levine (Steve.Levine@SAI-Comm.com); Steve Zuretti; Susan Bransfield, First Selectman, Portland; Susan Yorgensen, Town of Willington; Ted Backer, Esq., Pinney, Payne, Van Lenten, Burrell, Wolfe & Di; Ted D. Backer, Esq.; Thomas Regan; Thomas W. Beecher, Esq.; Tim Burks, Cingular; Tom Nolan, CT Architectural; Town of Canton; jshea@townofcantonct.org; npade@townofcantonct.org; rbarlow@townofcantonct.org; Wendell G. Davis; Lois P. Chiovoloni/NUS@NU; Andy Gorosko, The Newtown Bee; Christopher R. Bernard; David Savage; Derek Phelps; Diane Whitney; Erin Clark; Ernest Lacasse; Esther Williams, Town Clerk of East Lyme; Fontaine, Lisa; Hoa Nguyen; Jana Butts; Jennifer Gaudet; Joey Lee Miranda; John Morissette; K Gallagher; Karen Salerno, Merritt Parkway Conservancy; Kathleen A. Eagen, Town of Farmington; OllendorfJ@farmington-ct.org; Ken Thomas, Wireless Solutions; L. Burch; Luther Turmelle; Marcia Wellman; Mark B. Walter, First Selectman of East Haddam; Mark Richards; Mike Doiron; Mulcahy, Carriann; Paula Clarke; Radu Alecsandru ; Riese, Frederick; SOTS LEAD; Teubner, Ginger; Tyra Peluso; Wagener, Karl; Walter Saddig, Cingular; Anthony M. Macleod, Esq.; Bachman, Melanie; Bruce McDermott, UIL Holdings Corp.; Craig P. Ramsdell; Donald R. Holtman, Esq., Katz & Seligman, LLC; Duncan Mackay, Esq. NU; Ed Kaczenski; EGrondahl; Eileen Fielding; Meskill, Eileen M.; First Selectman; Hackett, Victoria; J Malin; Katz, Elin; Kevin M. Deneen, Enfield Town Attorney; Linda Randell, UI; MA Siting Board; Matthew C. McGrath; Nicholas J. Scobbo, Jr.; Paul Chernick, Resource Insight, Inc.; Steve Humes; Walsh, Christina; Wertheimer, Michael C.; William Febiger; Citizens Against Overhead Power Line; Deborah L. Moore, City of Meriden; Edward G. McAnaney, Esq.; Gretchen Deans, CEAB; Jeffrey Towle, Project Manager; John J. Prete, UI; Jonathan Milley, NRG; Lawrence J. Kendzior, Meriden City Hall; Meskill, Eileen M.; Wertheimer, Michael C.; Jane P. Seidl, Sr. Counsel, NU; Roberts, Linda; Susan M. Petersen; Adam Cohen; Bernard Adams; David R. Lawrence/Jeanne H. Lemelin; DR. Roy and Andrea Hitt; F. Pullaro; Garrett Trierweiler; John P. Johannemann; Kathleen Wilson; Sandy Breslin; Senator Kevin Witkos; Sue Murray; T. Persico; Town of Prospect
Cc: Bachman, Melanie; Martin, David C.; Mercier, Robert; Mulcahy, Carriann; Perrone, Michael; Roberts, Linda; Walsh, Christina; Weston, Jessica
Subject: CSC Agenda for 2/16/12

Lisa Fontaine
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051
(860) 827-2969
(860) 827-2950 fax
Lisa.fontaine@ct.gov

Fontaine, Lisa

From: r HITT <hitt_roy_e@sbcglobal.net>
Sent: Wednesday, February 08, 2012 5:01 PM
To: kevin.witkos@cga.ct.gov
Cc: CSC-DL Siting Council
Subject: Health Concerns Confirmed - Carl Phillips PHD

Public Health Expert weighs in:

Epidemiologist credits Wind Turbine Syndrome, dismissing detractors as junk scientists (Wisconsin)

Dr. Carl V. Phillips is a Harvard-trained epidemiologist specializing in public health policy. Until recently, Dr. Phillips was a tenured professor in the School of Public Health, University of Alberta, and is currently director of an independent research institute. [Click here](#) for Dr. Phillips's (slightly out of date) curriculum vitae.

In his testimony before the Wisconsin Public Service Commission on June 30, 2010, Dr. Phillips affirmed that Wind Turbine Syndrome (WTS) is epidemiologically valid and must be taken seriously by policy makers. He dismissed the wind industry's so-called expert studies opposing WTS as pseudo-science and *prima facie* ludicrous. Along the way, he punctures the sappy "nocebo effect" invoked by wind industry-sponsored scientists, as being epidemiologically naive and irrelevant.

He informed the PSC that full-blown epidemiological studies of WTS could be readily performed, although he seems unaware that the wind industry prevents these with its confidentiality agreements (gag clauses).

Phillips hints at a moratorium on further wind farm development until large-scale, properly funded epidemiological studies are performed, while reiterating and underscoring that scientifically credible evidence exists, right now, demonstrating genuine health problems from wind turbines.

Dr. Phillips's testimony, shown on the YouTube above, is supplemented by a written report which he is submitting to the Wisconsin PSC. His report will be posted on this site when it is made publicly available.

The following is a transcript of Dr. Phillips's testimony, courtesy of [Better Plan Wisconsin](#) (with corrections added).

PSC: Please raise your right hand. Do you swear to tell the truth, the whole truth, and nothing but the truth?

Carl V. Phillips: Yes, I do.

PSC: OK, spell your name.

PHILLIPS: Carl V. Phillips, C-A-R-L, initial V as in Vincent- Phillips- P-H-I-double L-I-P-S

PSC: All right, go ahead.

I'm an epidemiologist and policy researcher. I'm specifically expert in how to optimally derive knowledge for decision making from epidemiologic data.

I have a PhD in public policy from Harvard University, and I did a post doctoral fellowship in public health

policy and the philosophy of science.

I've spent most of my career as a professor of public health and medicine, most recently at the University of Alberta and I currently direct an independent research institute.

I reviewed the literature on health effects of wind turbines on local residents, including the reports that have been prepared by industry consultants and the references therein, and I have reached the following conclusions which I present in detail in a written report that I believe will be submitted [to the commission].

First, there is ample evidence that some people suffer a collection of health problems, including insomnia, anxiety, loss of concentration, general psychological distress, as a result of being exposed to turbines near their home.

The type of studies that have been done are not adequate to estimate what portion of the population is susceptible to the effect, the magnitude of the effects, or exactly how much exposure is needed before the risks become substantial, but all of these could be determined with fairly simple additional research.

What is clear is there is a problem of some magnitude. The evidence may or may not be enough to meet the burden of a tort claim about a specific disease, but in my opinion it's clearly enough to suggest that our public policy should not just be to blindly move forward without more knowledge.

The best evidence we have—which has been somewhat downplayed in previous discussion—is what's known as “case cross-over data,” which is one of the most useful forms of epidemiologic study when both the exposure and the disease are transitory. That is, it's possible to remove the exposure and see if the disease goes away, then reinstate it and see if the disease recurs, which is exactly the pattern that has been observed for some of the sufferers who physically moved away and sometimes back again.

With that study design in mind, we actually have very substantial amounts of data in a structured form, contrary to some of the claims that have been made. And more data of this nature could easily be gathered if an effort was made.

Moreover, people's avoidance behavior—their moving from their homes, and so forth—is a clear (what's called) “revealed preference measure” of their suffering. Such evidence transforms something that might be dismissed as a subjective experience or perhaps even fakery, to an objective observation that someone's health problems are worth more than the many thousands of dollars they've lost trying to escape the exposure.

My second observation . . . is that these health effects that people are suffering are very real. The psychologically mediated diseases that we've observed, and in fact overall mental well being, are included in all modern accepted definitions of either individual health or public health. It's true that they are more difficult to study than certain other diseases, but they probably account for more of the total morbidity burden in the United States than do purely physical diseases. Therefore [they] should not be in any way dismissed.

Third, the reports that I have read that claim there is no evidence that there is a problem seem to be based on a very simplistic understanding of epidemiology and self-serving definitions of what does and what does not count as evidence. I don't think I can cover too much of this in the available time right now, but I explain it in detail in my report—why these claims, which probably seem convincing to most readers *prima facie* [at first glance], don't represent proper scientific reading. Moreover, the conclusions of the reports don't even match their own analyses. The reports themselves actually concede that there are problems, and then somehow manage to reach the conclusion that there is no evidence that there are problems.

And my final point, as I've already alluded to, is it's quite possible to do the studies it would take to resolve the

outstanding questions, and they could actually be done very quickly by studying people who are already exposed.

This isn't the type of circumstance where we cannot really know more until we move forward and wait for years of additional exposure. The only reason we don't have better information than we do is that no one with adequate resources has tried to get it.

That's the conclusion of my points.

Bachman, Melanie

From: r HITT <hitt_roy_e@sbcglobal.net>
Sent: Wednesday, February 08, 2012 4:56 PM
To: CSC-DL Siting Council
Cc: kevin.witkos@cga.ct.gov
Subject: Wind Regulations: Science / Health analysis

lands Wind Neighbors

The truth about living near Vinalhaven wind turbines

Health Issues

Green Bay Gazette, January 26 2012

Aid for wind turbine victims sought

Wisconsin should pay the medical bills of Brown County residents who were made ill by industrial wind turbines, some county supervisors say.

Saying the state allowed “irresponsible placement” of industrial wind turbines in the Glenmore area, the Brown County Human Services Committee has approved a measure to ask the state to pay emergency aid to families living near the Shirley Wind Farm.

The request, which seeks an unspecified amount until the “hardships are studied and resolved,” could come before the full County Board next month.

It is the latest attempt by county supervisors and other officials to manage an issue in which some residents began experiencing conditions such as anxiety, depression, weight loss and increased cancer risks since the wind farm was erected in 2010.

“There is a 70-year-old woman who lost 20 pounds from not being able to eat,” said Barbara Vanden Boogart, a member of the Brown County Citizens for Responsible Wind Energy, an advocacy group. “There are two adults who sleep an average of one and a half hours a night.”

Shirley’s operators insist their facility has been built and operated safely.

Wind farms have been a topic of debate in Wisconsin in the past several years. Advocates say wind pollutes less than coal and is less expensive and less potentially dangerous than nuclear energy.

Officials say the facilities’ record isn’t good enough. The County Board resolution says the state was irresponsible in allowing the Shirley Wind Farm to be built without consulting an expert on the medical consequences of living near wind turbines.

Supervisors said they had no indication Wednesday of how the state would respond to their request. They said the answer would be up to officials in Madison to resolve this spring.

Supervisor Patrick Evans said the government must do more to protect citizens until more is known about potential dangers, saying at least two local families living near wind farms have abandoned their homes and others lost thousands of dollars because livestock died mysteriously.

“This problem is very real,” he said. Being upstairs in a house near the Shirley facility, he said, “felt after 10 or 12 minutes like you were getting carbon-monoxide poisoning.”

Lawmakers also are calling on the state to adopt turbine-siting guidelines approved by citizens groups.

State Sen. Frank Lasee, R-Ledgeview, last week introduced a bill to allow cities, villages, towns and counties to establish the minimum distance between a wind turbine and a home — even if those rules are more restrictive than any the state enacts.

Statewide wind-siting rules, more than a year in the making, were suspended last March. Lawmakers sent those rules, which dealt with farms of less than 100 megawatts, back to the state Public Service Commission, where they have stayed as officials worked to reach a compromise.

Lack of regulatory agreement, particularly on the issue of how far a turbine must be from a property line, has tempered enthusiasm about wind farms. A corporation in 2011 scrapped plans for a 100-turbine development in the Morrison-Glenmore area.

<http://betterplan.squarespace.com/>

(Jan 2, 2012) In April of this year Stephen E. Ambrose, an acoustical consultant from Windham, Maine, drove down to Falmouth in his Toyota Camry.

The license plate, which reads “BE QUIET,” was perhaps the first sign that he was sympathetic to the plight of abutters living next to the town-owned wind turbines at the Wastewater Treatment Facility.

But that is even more apparent in a study of a nearby turbine in Falmouth Technology Park owned by Notus Clean Energy that Mr. Ambrose released with Robert W. Rand, also of Maine, two weeks ago.

In that document the pair detail the same symptoms they experienced that have been reported by several of the neighbors of Wind 1, the 1.65-megawatt turbine that became operational in March of last year. “Within twenty minutes of being inside their house, while setting up our instruments, each of us started to lose our initial enthusiasm and actually started to feel less well. As time went on, we got progressively worse. We each experienced unpleasant symptoms of motion sickness, including ear pressure, headache, nausea, dizziness, vertigo, especially when moving about,” the report reads.

The two remained in Falmouth, at an undisclosed home of an abutter to the Notus turbine, for three days. Their goal was to investigate infrasonic and low-frequency noise emissions.

The study, titled “The Bruce McPherson Infrasound and Low Frequency Noise Study,” was privately funded by Mr. McPherson, a former Hyannis resident who died last March.

As to Mr. McPherson’s role in the study, attorney Christopher G. Senie of Westboro provided some additional background.

“Mr. McPherson approached me at a Cape Cod Commission meeting I guess about a year ago and indicated to me he was interested in trying to figure out why it was Falmouth residents were having such distress so he

offered to finance a study to look further into it," Mr. Senie said.

Mr. Senie currently represents six residents in a companion case to Neil P. and Elizabeth L. Andersen's lawsuit against the Falmouth Zoning Board of Appeals' decision that upheld Building Commissioner Eladio R. Gore's ruling that the town did not need a special permit to build Wind 1.

He also has represented neighbors during the town's study of the turbine's noise impacts last year.

Mr. Senie stressed that "Mr. McPherson didn't exercise any influence over the study. He passed away long before it was completed or a draft of it was available."

"I think he spent time pondering the question of whether turbines could be designed differently to eliminate problems," Mr. Senie continued. "He was certainly concerned about the Cape community, which he loved, and this study seemed important to him."

The responsibility of conducting the study fell into the hands of Mr. Ambrose and Mr. Rand, who collectively have 66 years of experience working in the field of acoustics. For the last two years, Mr. Rand said, they have been investigating noise generated from wind turbines.

"We approach noise problems from the point of view of the neighbor," Mr. Rand said. "It is the best way to understand complaints."

Originally the goal was to study Wind 1, but after selectmen voted to curtail the operation of that turbine when wind speeds reach roughly 23 miles per hour, the choice was made to investigate the Notus machine. "It is an identical make and model to the Wind 1 and Wind 2 turbines owned by the town," Mr. Rand pointed out.

The study focused on low-frequency noise, something the researchers noted in their report is overlooked because local and state regulations focus on "A-weighted sound level measurements" which essentially eliminates acoustic signals below 20 Hertz where infrasound is located in the acoustic frequency spectrum."

Additionally, the pair noted that the A-weighted sound level was not the best measurement for determining problems indoors where abutters were complaining more about discomfort.

Results showed that "the house envelope blocked most of the frequency content above 10 Hz, and amplified the remaining low-frequency pulsations, much like a drum."

While the study's focus was on low frequency, much of it details the health impacts the two felt from being exposed to the turbine.

A chart, listing the daily wind speeds, also includes the symptoms the two experienced. On the first day, for example, when wind gusts were between 25 and 35 miles per hour, the researchers felt everything from nausea to dizziness to the inability to concentrate. It is noted that the two "felt miserable" and "performed tasks at a reduced pace."

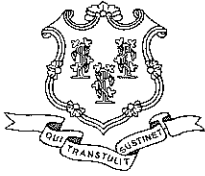
Mr. Rand said he and Mr. Ambrose felt those symptoms for several weeks after. "I did seek medical treatment for that," he said. "I obtained an eyeglass prescription. I wear them all the time. I never wore eyeglasses before this study."

Both he and Mr. Ambrose "were caught by surprise" with how severely they were impacted, Mr. Rand said. "We were unprepared and unable to take measurements," he said, noting that "we were able to pull ourselves together after the wind subsided... This has never happened to me at any period of my career, but this is the first

time we measured wind turbines indoors.”

The report does not claim the turbine caused the physiological symptoms the pair experienced, but does say “there were strong correlations established.”

As to how much weight this study will hold in the town’s ultimate decision on what to do with its wind turbines is unclear.



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

August 22, 2011

The Honorable Robert J. Chatfield
Mayor
Prospect Town Office Building
36 Center Street
Prospect, CT 067121699

RE: Wind Regulations pursuant to Public Act 11-245

Dear Mayor Chatfield:

The Connecticut Siting Council (Council) is in receipt of your letter dated August 12, 2011 in which you request a hearing to be held in Prospect with regard to the above-referenced state regulations concerning wind turbine projects.

Please be advised that the Council will follow the regulation-making process for formulation and adoption of regulations pursuant to the Uniform Administrative Procedure Act (UAPA), C.G.S. § 4-166 et seq. Notice of the Council's intent to adopt regulations shall be published in the Connecticut Law Journal and shall be mailed to all persons who have made requests for advance notice of regulation-making proceedings.

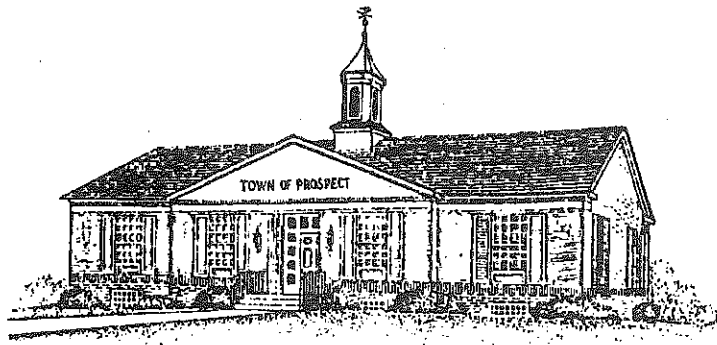
If requested in accordance with the UAPA, the Council shall hold public hearings at its offices in New Britain to afford all interested persons a reasonable opportunity to submit data, views or arguments orally at a hearing or in writing. The Council shall also maintain an official regulation-making record that shall be available for public inspection and copying.

The Council welcomes and encourages residents of Prospect and the bordering towns to submit data, views or arguments orally at the hearing that will be held in New Britain or in writing to the Council at its office. Notice of the Council's intent to adopt the wind turbine regulations, including how interested persons may request a copy of the proposed regulations and when, where and how interested persons may present their views, will be mailed to you.

Very truly yours,

Linda Roberts
Executive Director

LR/MAB/laf



OFFICE OF THE MAYOR • TOWN OF PROSPECT, CT 06712-1699
ROBERT J. CHATFIELD, MAYOR
758-4461
WWW.TOWNOFPROSPECT.COM

ORIGINAL

August 12, 2011

Ms. Linda Roberts, Executive Director
State of Connecticut
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

ROBERT J. CHATFIELD
AUG 18 2011

Dear Ms. Roberts:

CONNECTICUT
SITING COUNCIL

This past Winter and early Spring Prospect Residents were very involved in the wind turbine discussion. I opposed the B.N.E. Project to stand up for the neighborhood and to have some type of State Regulations to address this issue.

The legislature has requested the Siting Council to adopt regulations on the wind turbine issue and therefore when the Council gets to the Public Meeting Phase, I request a hearing be held in Prospect similar to the one this Winter. At that hearing, which was very orderly and well run, both sides seemed evenly split.

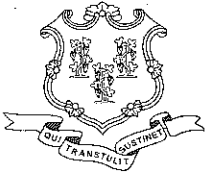
There is considerable interest in Prospect and the bordering towns on wind turbines. I believe you would have much valuable input from residents.

Very truly yours,


Robert J. Chatfield
Mayor

An Equal Opportunity Employer





STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

DATE: September 23, 2011

TO: Council Members, Agenda Recipients, Interested Persons

FROM: Robert Stein, Chairman *RS*

RE: **NOTICE OF SPECIAL MEETING**
PUBLIC FORUM ON THE ADOPTION OF WIND REGULATIONS

The Connecticut Siting Council (Council) will hold a public forum on the adoption of regulations for the siting of wind projects on Thursday, October 13, 2011, beginning at 1:30 PM until 5:00 PM, and continuing from 6:30 PM until 9:00 PM in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

This will be an informal proceeding at which interested persons may make oral statements or submit written statements concerning the adoption of regulations for the siting of wind projects. For interested persons who would like to make oral statements, there will be a sign-up sheet near the entrance of the hearing room. Persons will be called to the podium in the order in which they signed up to speak. To ensure all interested persons have an opportunity to present their statements, each speaker should anticipate a time limit of approximately three minutes. Written statements may be submitted at the public forum, may be mailed to the Council office at 10 Franklin Square, New Britain, Connecticut 06051, or may be e-mailed to the Council at siting.council@ct.gov.

A verbatim transcript of the public forum will be made and deposited at the Council office. Please call the Council office with any questions or requests for interpreter services at 860-827-2935 by October 6, 2011.

FAX Press release
9/24/11

September 23, 2011

FAXED

NOT cover sheet - just press release attached
9/24/11

TO: Classified/Legal Supervisor
WIND111013
The Connecticut Post
410 State St. (203) 333-3261
Bridgeport, CT 06604

Classified/Legal Supervisor
WIND111013
The Middletown Press
2 Main St. (860) 347-3380
Middletown, CT 06457

Classified/Legal Supervisor
WIND111013The Bristol Press
99 Main St., P.O. Box 2158
Bristol, CT 06010-2158 (860) 594-2192

Classified/Legal Supervisor
WIND111013The Register Citizen
190 Water St., P.O. Box 58
Torrington, CT 06790 (860) 489-6790

Classified/Legal Supervisor
WIND111013Brooks Community
Newspapers (203) 343-3573
15 Myrtle Avenue
Westport, CT 06881

Classified/Legal Supervisor
WIND111013
The Hartford Courant
285 Broad St. (860) 241-3855
Hartford, CT 06115

Classified/Legal Supervisor
WIND111013
The Day (860) 442-1683
47 Eugene O'Neill Dr.
P.O. Box 1231 442-5599
New London, CT 06320-1231

Classified/Legal Supervisor
WIND111013
The Herald (860) 225-2311
One Herald Sq.
New Britain, CT 06050

Classified/Legal Supervisor
WIND111013Brooks
Community Newspapers
15 Myrtle Avenue
Westport, CT 06881

Classified/Legal Supervisor
WIND111013The Litchfield
County Times (860) 354-8701
32 Main St.
New Milford, CT 06776

Classified/Legal Supervisor
WIND111013
The New Haven Register
40 Sargent Dr. (203) 789-5269
New Haven, CT 06511

Classified/Legal Supervisor
WIND111013 (203) 573-0090
Waterbury Republican-American
389 Meadow St.
Waterbury, CT 06722

Classified/Legal Supervisor
WIND111013
Record-Journal (203) 639-0210
11 Crown St.
Meriden, CT 06450

Classified/Legal Supervisor
WIND111013The Advocate
75 Tresser Blvd. (203) 964-2331
Stamford, CT 06904-9307

Classified/Legal Supervisor
WIND111013
Law Tribune
201 Ann Uccello St., 4th Floor,
Hartford, CT 06103

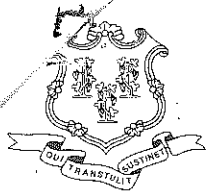
FROM: Lisa A. Fontaine, Fiscal Administrative Officer

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations
for the siting of wind projects pursuant to Public Act 11-245.

Please publish the attached legal notice for one day on the first day possible from receipt of this notice, except on Saturday, Sunday, or holiday.

Pursuant to General Statutes § 16-50m(c), the general notice to be public shall be published in its entirety in not less than **TEN POINT BOLDFACE TYPE**. If you have any questions concerning the ten point type, please contact me. If your newspaper does not have ten point type, please so state and also state the size type actually used in the legal notice in your affidavit.

Please send affidavit of publication and invoice to: Connecticut Siting Council
10 Franklin Square, New Britain, CT 06051



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

PRESS RELEASE OF SPECIAL MEETING PUBLIC FORUM ON THE ADOPTION OF WIND REGULATIONS

The Connecticut Siting Council (Council) will hold a public forum on the adoption of regulations for the siting of wind projects on Thursday, October 13, 2011, beginning at 1:30 PM until 5:00 PM, and continuing from 6:30 PM until 9:00 PM in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

This will be an informal proceeding at which interested persons may make oral statements or submit written statements concerning the adoption of regulations for the siting of wind projects. For interested persons who would like to make oral statements, there will be a sign-up sheet near the entrance of the hearing room. Persons will be called to the podium in the order in which they signed up to speak. To ensure all interested persons have an opportunity to present their statements, each speaker should anticipate a time limit of approximately three minutes. Written statements may be submitted at the public forum, may be mailed to the Council office at 10 Franklin Square, New Britain, Connecticut 06051, or may be e-mailed to the Council at siting.council@ct.gov.

A verbatim transcript of the public forum will be made and deposited at the Council office. Please call the Council office with any questions or requests for interpreter services at 860-827-2935 by October 6, 2011.

**REGULATION-MAKING REQUIREMENTS UNDER THE UNIFORM ADMINISTRATIVE
PROCEDURE ACT**

A. Notice Prior to Action on Regulations

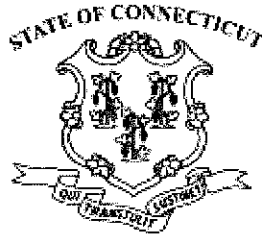
- (1) Agency must give at least 30 days notice by publication in the CT Law Journal of action including:
 - (a) statement of terms, substance of proposal, or sufficiently detailed description
 - (b) statement of purpose
 - (c) reference to statutory authority
 - (d) when, where, how interested persons may present their views
- (2) Give notice by mail to each joint standing committee of the General Assembly having cognizance of the subject matter of the proposed regulation
- (3) Give notice by mail to all persons who have asked for advance notice
- (4) Provide a copy of the proposed regulation to persons requesting it
- (5) Allow all interested persons reasonable opportunity to submit data, views, or arguments orally at a hearing or in writing
- (6) Afford interested persons an opportunity to present oral argument, if requested by 15 persons, by a governmental subdivision or agency or association with > 15 members if notice of request is received within 14 days after date of publication of the notice in the CT Law Journal
- (7) Consider all written and oral submissions respecting the proposed regulation
- (8) If the proposed regulation is revised, provide interested persons who have requested notification notice and an opportunity to copy/inspect:
 - (a) the final wording of the proposed regulation
 - (b) a statement of the principal reasons in support of the revision
 - (c) a statement of the principal considerations in opposition of the revision and reasons for rejecting those considerations

B. Regulation-making Record

- (1) copies of all publications in the CT Law Journal
- (2) a copy of any written analysis prepared for the proceeding upon which the regulation is based such as fiscal notes, small business impact statement and regulatory flexibility analysis
- (3) all written petitions, requests, submissions and comments received and considered by the agency
- (4) official transcript
- (5) a copy of all official documents relating to the regulation

C. Submission of proposed regulation to the Attorney General

D. Submission of proposed regulation to the Legislative Regulation Review Committee



Substitute House Bill No. 6249

Public Act No. 11-245

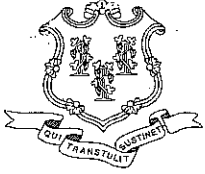
AN ACT REQUIRING THE ADOPTION OF REGULATIONS FOR THE SITING OF WIND PROJECTS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (NEW) (*Effective July 1, 2011*) (a) On or before July 1, 2012, the Connecticut Siting Council, in consultation with the Department of Public Utility Control and the Department of Environmental Protection, shall adopt regulations, in accordance with the provisions of chapter 54 of the general statutes, concerning the siting of wind turbines. Such regulations shall include, but not be limited to, (1) a consideration of (A) setbacks, including considerations of tower height and distance from neighboring properties; (B) flicker; (C) a requirement for the developer to decommission the facility at the end of its useful life; (D) different requirements for projects of different sizes; (E) ice throw; (F) blade shear; (G) noise; and (H) impact on natural resources; and (2) a requirement for a public hearing for wind turbine projects.

(b) The Connecticut Siting Council shall not act on any application or petition for siting of a wind turbine until after the adoption of regulations pursuant to subsection (a) of this section.

Approved July 13, 2011



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

October 21, 2011

The Honorable Mary Fritz
State Representative – 90th District
Legislative Office Building, Room 4013
Hartford, CT 06106-1591

RE: WIND REGULATIONS - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear State Representative Fritz:

The Connecticut Siting Council (Council) is in receipt of your correspondence, dated October 19, 2011, concerning wind energy.

Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

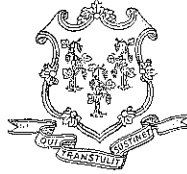
Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda. Your e-mail address has been added to our wind regulations e-mail distribution list.

Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

Linda Roberts
Executive Director

LR/MB/laf



State of Connecticut
 HOUSE OF REPRESENTATIVES
 STATE CAPITOL
 HARTFORD, CONNECTICUT 06106-1591

RECEIVED
 OCT 20 2011

CONNECTICUT
 SITING COUNCIL

REPRESENTATIVE MARY G. FRITZ
 NINETIETH ASSEMBLY DISTRICT

ASSISTANT DEPUTY SPEAKER

LEGISLATIVE OFFICE BUILDING
 ROOM 4013
 HARTFORD, CT 06106-1591
 HOME: (203) 269-1169
 CAPITOL: (860) 240-8571
 TOLL FREE: (800) 842-8287
 FAX: (860) 240-0206
 E-MAIL: Mary.Fritz@cga.ct.gov

MEMBER
 JUDICIARY COMMITTEE
 LEGISLATIVE MANAGEMENT COMMITTEE
 PLANNING AND DEVELOPMENT COMMITTEE

October 19, 2011

Mr. Robert Stein, Chairman
 State of Connecticut
 Connecticut Siting Council
 Ten Franklin Square
 New Britain, CT 06051

Dear Chairman Stein,

Thank you for the notice regarding the public forum on the adoption of regulations for the siting of wind projects. Unfortunately, I had a conflict and I could not attend.

Having said that, you should be aware that I strongly believe in the use of wind as an energy source. I successfully passed a bill through the House of Representatives about three years ago which would have allowed the turbines to be placed on prison lands if feasible. Unfortunately, the Senate was in a political meltdown and did not take it up.

I introduced the bill again the following year and Corrections thought I was criticizing their energy operations. Which I was NOT! All I wanted to do was introduce turbines to the state and I did and I do strongly believe that the state needs to think outside the box and take a lead in alternative energy sources! The state should use its own lands for such a project and become a model!

Anyway – now you know my involvement and my thoughts! For me, “same old, same old” is not acceptable! Maybe you could give the State a push!

Again – thanks for the invite! Maybe sometime we can have a more in depth conversation!

Sincerely,

Mary Fritz
 State Representative – 90th District
 Assistant Deputy Speaker

Bachman, Melanie

From: nesciss@NU.COM
Sent: Thursday, October 13, 2011 12:03 PM
To: CSC-DL Siting Council
Subject: CSC Wind Regulations - CL&P Comments
Attachments: CSCSWindRegFinal.doc

Pursuant to the Notice of Special Meeting, attached are CL&P's Comments. Hard-copies will be delivered to the Council within the half-hour.

Sandra S. Nesci
Supervisor, Regulatory Information Processing
Northeast Utilities Service Company
Phone: 860.665.5852
Fax: 860.665.3314
Email: nesciss@nu.com

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**Northeast
Utilities System**

Northeast Utilities
107 Selden Street, Berlin, CT 06037
(860) 665-3678 (direct)
(860) 665-5504 (fax)
E-mail: Borgej@nu.com

Joaquina Borges King, Esq.
Senior Counsel
Legal Department

October 13, 2011

Mr. Robert Stein, Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Adoption of Wind Regulations

Dear Chairman Stein:

The Connecticut Light and Power Company ("CL&P" or "Company") hereby submits these comments in response to the Siting Council's September 23, 2011 Notice of Special Meeting Public Forum on the Adoption of Wind Regulations. The Notice was issued pursuant to Public Act 11-245, *An Act Requiring the Adoption of Regulations for the Siting of Wind Projects*, effective July 1, 2011, which requires the adoption of regulations which shall include, but not be limited to: "... (1) a consideration of (A) setbacks, including considerations of tower height and distance from neighboring properties; (B) flicker; (C) a requirement for the developer to decommission the facility at the end of its useful life; (D) different requirements for projects of different sizes; (E) ice throw; (F) blade shear; (G) noise; and (H) impact on natural resources." CL&P appreciates the opportunity to provide these comments at this time, and respectfully requests that the Siting Council consider the issues raised herein during its development of proposed regulations.

CL&P, as a specially chartered Connecticut corporation and electric distribution company, operates and maintains electric distribution and transmission facilities throughout the state of Connecticut, delivering electricity to approximately 1.2 million customers. CL&P's facilities also include telecommunications infrastructure which support the Company's operations. Therefore, consideration of whether a proposed wind project will impact the operation of the Company's facilities must be taken into account as part of the state's siting process. Examples of potential impacts include, but may not be limited to, telecommunications interference, facility damage from blade shear or ice

throw, and access limitations or restrictions on facilities. The critical nature of the electric system and the unique nature of each wind project coupled with the project's impact on its surroundings necessitate a careful review of each proposed project by the Siting Council.

In addition to receiving Siting Council permission to construct a wind facility, wind project developers must also connect to the electric system. The Public Utilities Regulatory Authority has jurisdiction over distribution level connections, pursuant to detailed interconnection guidelines. Transmission level interconnections are within the Siting Council's jurisdiction, and typically approval of generation facility siting includes interconnection facilities. CL&P recommends requiring wind developers to include the proposed structure and design of the project's transmission interconnection with their generating facility siting request. Combining these proceedings should facilitate the siting and transmission level interconnection process, and result in reduced costs for all parties involved.

Finally, CL&P believes it is important for the Siting Council to reserve some flexibility and preserve its discretion to carry out its statutory mandate to balance the need for adequate and reliable public utility services with the need to preserve the environment and consider all environmental impacts, particularly in instances where projects may involve multiple towns.

CL&P looks forward to future opportunities to comment on proposed regulations developed by the Siting Council in this regulation making process.

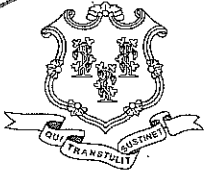
Respectfully submitted,

Joaquina Borges King
Senior Counsel
Counsel for CL&P

CERTIFICATION

I hereby certify that a copy of the foregoing was sent by first class mail and via email to the CT Siting Council on this 13th day of October, 2011.

Joaquina Borges King



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

October 13, 2011

Joaquina Borges King
Senior Counsel
Northeast Utilities Service Company
107 Selden St.
Berlin, CT 06037

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Atty. King:

The Connecticut Siting Council (Council) is in receipt of your correspondence, dated October 13, 2011, concerning wind energy.

Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

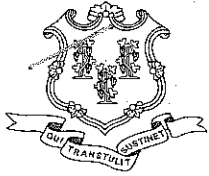
Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda. Your e-mail address has been added to our wind regulations e-mail distribution list.

Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

Linda Roberts
Executive Director

LR/MB/laf



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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E-Mail: siting.council@ct.gov
www.ct.gov/csc

October 17, 2011

John P. Johannemann
454 North Anguilla Road
North Stonington, CT 06359

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Mr. Johannemann:

The Connecticut Siting Council (Council) is in receipt of your recent e-mail correspondence, dated October 13, 2011, concerning wind energy.

Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda.

Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

Linda Roberts
Executive Director

LR/MB/laf

Bachman, Melanie

From: John P Johannemann <john.p.johannemann@dom.com>
Sent: Thursday, October 13, 2011 12:47 PM
To: CSC-DL Siting Council
Subject: FW: Wind Farm Regulations

Dear Council Members,

This is a critical time for job creation, wind installations and regulation throughout the country. The path that you decide on has the potential of national implications. While wind development exists in many states it is still a very minor portion of our power generation. In weighing the regulations you write consider that they do what is intended. Too often well intended regulation turns out to have flaws that have extreme negative effects on projects and neighborhoods. No regulation is better than poor regulation.

You must consider the balance between the needs of the state, the developer and the environment. There are few locations in the state of Connecticut that lend themselves to wind installations. Your regulations must be designed to allow those locations to move forward. Height restrictions, visual impact and such are arbitrary. I believe that a wind turbine dancing in the sky is a beautiful thing, another may not. So a regulation restricting a location because of view is purely a personal preference and cannot be regulated. The same goes for sound, can a person living along a busy traveled road listening to trucks all day object to the swooshing sound of a wind turbine, no. Some people listen to blaring rap and call it music others find it offensive.

We need every kilo watt of clean energy we can get, we need every new job and we need developers to invest in our state. Excessive or oppressive regulation kills everything. Please do not allow politics, emotion or feeling to impact your process. Science and engineering are what will move us forward.

Thank You,

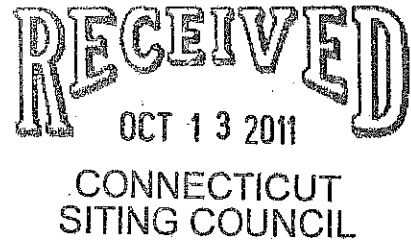
John P. Johannemann
45 North Anguilla Rd
North Stonington, CT 06359

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Joyce C. Hemingson
PO Box 207
Colebrook, CT 06021

October 13, 2011

The Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051



Re: Wind Turbine Siting Regulations for the State of Connecticut

Upton Sinclair once wrote: "It is difficult to get a man to understand something when his job depends on not understanding it."

Having participated in the Siting Council's public hearings and proceedings for Petitions 980, 983 and 984, I hope that this public forum is not another black hole. A great deal of the public's time and money was spent providing the Council with information that was then ignored in making its decisions, including the fact that Connecticut lacked wind turbine siting regulations.

Dr. David Lawrence, who could not be heard today, has submitted written testimony again about the World Health Organization's noise recommendation of 35 dBA. You may know that Maine, which has the most installed onshore wind of any New England state, is considering lowering their permitted night-time noise level from 45 dBA to 42 dBA. Connecticut's noise regulations date to 1978 and don't address the unique features of noise from wind turbines, such as infrasound. However, Connecticut's regulations clearly say that compliance must be at a property's boundary, not at a "residential receptor." If the Council follows the current state regulations with a daytime level of 61 dBA and night-time of 51 dBA, it amounts to a sound increase of 4 times over ambient for a quiet rural area. New regulations should require no more than a 6 dBA increase over ambient noise levels at property lines.

Noise modeling and monitoring by the owner/operator, both before and after construction, needs to follow a standard protocol at property lines. Results should be available to the public and there needs to be a standard process for addressing noise-related complaints or violations in a timely fashion 24/7. Many complaints about noise occur at night, when the wind is stronger and people are trying to sleep.

The majority of audible noise issues occur within a half mile to three quarters of a mile, according to Jim Cummings of the Acoustic Ecology Institute. Science-based setbacks from property lines and occupied buildings would go a long way towards eliminating problems with noise, infrasound, ice throw, blade throw, shadow flicker, blasting zones and general safety. The Council should not commandeer abutting property as a place for blades to overhang or drop ice, or as a turbine fall-down area or blasting zone.

Lastly, I urge the Council not to site industrial wind turbines in residential areas. Huge turbines are far more intrusive objects than cell towers -- and you are well aware of citizens' objections to those. Connecticut needs to be a great place to live and work and we can't afford to make homes unlivable or unsellable, or to harm businesses that rely on tourism, real estate, historic places and outdoor recreation.

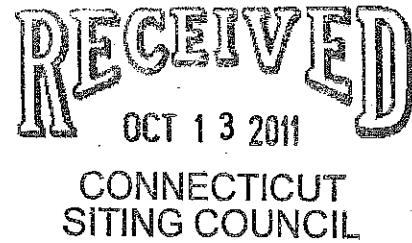
At the Energy and Technology Committee's public hearing on wind energy regulations in February, one of your members testified that the Council had all the regulations it needed and would be using "best practices." So far you have not used best practices. The public is going to stay with this regulatory process until you do what's right for Connecticut.

Sincerely,

A handwritten signature in cursive script that reads "Joyce C. Hemingson". The signature is written in dark ink and is positioned above the typed name.

Joyce C. Hemingson, Ph.D.

Stella Somers
19 Rock Hall Road
Colebrook CT 06021



On June 17, 2011 The Connecticut Commission on Culture and Tourism released a study on the economics benefits of historical preservation. Gov. Malloy summed up the findings by saying "By rehabilitating our existing building stock, we create jobs, increase local tax revenue, and use our irreplaceable architectural heritage to benefit our state in the twenty first century."

By preserving historic architecture you are preserving human history. If a Siting Council decision destroys the integrity of a significant old home, both literally and figuratively society loses a unique window onto the economic, social and cultural conventions of a bygone era. By understanding the past, people are better able to cope with the present and even the future.

Regulations regarding any energy producing facilities should include the following:

- Petitioners must submit visibility studies with their petitions, analyzing the extent to which each turbine will be visible by properties beyond the borders of the project site, for a minimum of 5 miles. Visibility studies must include both maps and photo simulations from vantage points including all

neighboring properties, all scenic and historic sites within at least 2 miles, all scenic or significant hiking trails and lookout points, and such other places as the Council may deem appropriate.

- Any visibility analysis must be conducted using peer-reviewed and critiqued computer software.
- If any historic site is located within 2 miles of the proposed turbine project site, the petitioner must conduct a more detailed visibility analysis, which must include photo simulations from the historic site (unless the property owner refuses to grant the petitioner access to the site). The detailed visibility analysis must be submitted to (1) the Council; (2) the State Historic Preservation Office; and (3) the owner of the historic property.
- Regulations should prohibit the siting of any wind turbine project if the SHPO has determined the project will have an adverse effect on a historic resource.
- In response to Petition 984, SHPO determined that the siting of wind turbines on Rock Hall Road would have a negative and destructive impact on Rock Hall, a member of the National Register of Historic Places. The 9 members of the Siting Council's own biographies as posted on the CT Siting Council website do not reference any level of professional expertise

specifically in architecture or historic preservation.

- That not withstanding and despite a site visit related to Petition 984 that brought the Council within 2000 feet of Rock Hall during a leaf off period, not a single member of the Siting Council, thought it significant to see for themselves the impact the proposed project would have on an irreplaceable historic resource that is the sole surviving example north of the Mason Dixon Line of one of the nation's leading architects .
- SHPO does not take its stewardship of historic resources lightly.
- Regulations should prohibit the siting of any wind turbine project if the SHPO has determined the project will have an adverse effect on a historic resource.
- Not doing so is an affront to the oversight process, leads to involvement by the National ~~Historic~~ Advisory Council, *Historic Preservation* the expenditure of private and public funds and undermines a national policy supporting historic preservation.

burdensome



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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www.ct.gov/csc

October 13, 2011

Francis Pullaro
Executive Director
Renewable Energy New England
P.O. Box 383
Madison, CT 06443

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Mr. Pullaro:

The Connecticut Siting Council (Council) is in receipt of your correspondence, dated October 13, 2011, concerning wind energy.

Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda. Your e-mail address has been added to our wind regulations e-mail distribution list.

Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

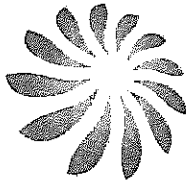
A handwritten signature in cursive script that reads "Linda Roberts".

Linda Roberts
Executive Director

LR/MB/laf



RECEIVED
OCT 13 2011



RENEW
Renewable Energy New England

CONNECTICUT
SITING COUNCIL

PO Box 383
Madison, CT 06443
Voice: 646-734-8768
Email: fpullaro@renew-ne.org
Web: renew-ne.org

**Connecticut Siting Council
Rulemaking on the Siting of Wind Projects Pursuant to Public Act 11-245
October 13, 2011
Comments of RENEW**

My name is Francis Pullaro. In my capacity as the Executive Director of Renewable Energy New England, Inc., or RENEW, I am here to remark on the Council's adoption of regulations for the siting of wind projects.

RENEW is a non-profit association uniting the renewable energy industry and environmental interest groups whose mission involves coordinating the ideas and resources of its members with the goal of increasing environmentally sustainable energy generation in New England from the region's abundant renewable energy resources.

RENEW's membership is comprised of the American Wind Energy Association, Anbaric Transmission, Conservation Law Foundation, Deepwater Wind, First Wind Energy, EDP Renewables, Iberdrola Renewables, Union of Concerned Scientists and Vestas American Wind Technology. The comments expressed herein represent the views of RENEW and not necessarily those of any particular member of RENEW.

RENEW members are developing or considering developing large scale wind generation facilities in Connecticut.

Utility scale wind energy is an affordable resource with upfront capital costs comparable to new coal or nuclear power plants, even before accounting for all environmental externalities. The benefits of wind energy, which include its relatively low cost, potential to reduce wholesale electricity prices, local and regional economic development, and incomparable environmental sustainability, make it a preferable resource for diversifying our electricity system.

In considering any potential health effects related to the siting of wind turbines RENEW recommends that the Council review the relationship between wind development, the environment and public health. Wind power is not an ordinary type of

development, but a source of energy with enormous environmental and health benefits. Wind resource development is becoming an ever more important component of the New England economy and a primary contributor to meeting the region's environmental goals. For these reasons regulations should not hold wind turbines to a standard higher than conventional power plants and other regulated activities.

Siting rulemakings and permitting proceedings in other New England states recently have predominately addressed concerns about the relationship between wind turbine noise and human health. RENEW makes the following observations on the current body of peer-reviewed scientific evidence on this issue:

- The sounds and vibrations emitted by wind turbines are not unique;¹ and
- No reliable scientific evidence exists that the audible or sub-audible sounds emitted by wind turbines have any "direct adverse physiological effects".²

RENEW believes that all wind energy developers should follow best-practices for the siting of turbines and conduct accurate sound assessments before committing to a site. Developers should ensure through sound modeling that the layout of the turbines at the site does not cause sound levels to exceed set limits at neighboring properties. While many regulators often seek to set a minimum distance between turbines and abutting properties for noise control, RENEW sees setting a fixed setback distance as inappropriate. As the type of turbine installed, the topography of the site, and the location of the abutting dwellings will cause the setback distance necessary to meet noise level requirements to vary, a noise level standard should be adopted instead of a fixed setback requirement.³

As the Council considers the health and safety aspects of wind projects, it should also recall the benefits of wind energy for the environment and public health. RENEW urges the Council to consider not just the impacts of the location, construction and

¹ W.D. Colby, R. Dobie, G. Leventhall, D.M. Lipscomb, R.J. McCunney, M.T. Seilo, and B. Sondergaard, *Wind Turbine Sound and Health Effects: An Expert Panel Review* ES-1 (2009). See R.J. McCunney, *Wind Turbines and Potential Health Effects* 29-30 (2011) (testimony submitted to the Maine Board of Environmental Protection on behalf of First Wind Energy LCC) (available at http://www.maine.gov/dep/ftp/bep/ch375citizen_petition/pre-hearing/AR-63%20Robert%20McCunney%20testimony%20and%20exhibits.pdf).

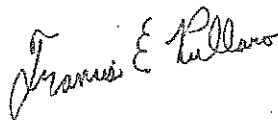
² Colby, *supra* at 4-1.

³ See Anthony Rodgers, James F. Manwell, and Sally Wright, *Wind Turbine Acoustic Noise* 24 (2006) (available at http://www.ceere.org/rerl/publications/whitepapers/Wind_Turbine_Acoustic_Noise_Rev2006.pdf); and Canadian Wind Energy Association, *Canadian Wind Energy Association Position on Setbacks for Large-Scale Wind Turbines in Rural Areas (MOE Class 3) in Ontario*, 9, 15 (2007) (available at <http://www.canwea.ca/images/uploads/File/FINAL-CanWEAPositionOnSetbacks-2007-09-28.pdf>).

operation of wind energy facilities, but also the public health disadvantages should we fail to deploy new clean energy infrastructure and leave ourselves dependent on dangerous and polluting electric generation sources including the region's fleet of old fossil fuel power plants. Unlike these plants, wind powered generators emit no greenhouse gases and none of the air pollutants, such as sulfur dioxide, nitrogen oxides, particulate matter, and air toxics, that result in health harms such as respiratory and cardiovascular disease and the environmental problems of acid rain and smog. The New England Wind Integration Study prepared for ISO New England in December 2010 assessed the effects of large-scale wind penetration in New England. It shows that greater amounts of wind penetration in our region correspond to substantial reductions in these harmful air emissions. The significant emissions reductions from adding wind energy to the grid will benefit people in Connecticut by decreasing the number of deaths and the prevalence of disease caused by fossil fuel power plants.

RENEW believes appropriately sited wind energy projects are vital to achieving Connecticut's environmental goals most notably its requirement that 20 percent of our electricity usage in the year 2020 be met by the most sustainable energy resources. RENEW urges the Council to examine the body of reliable scientific evidence to craft wind siting regulations that will enable us to achieve this goal in a manner that does not compromise human health or the environmental quality.

Sincerely,

A handwritten signature in cursive script that reads "Francis E. Pullaro".

Francis Pullaro
Executive Director

Fontaine, Lisa

From: Mulcahy, Carriann
Sent: Thursday, October 13, 2011 7:42 AM
To: Bachman, Melanie
Cc: Fontaine, Lisa
Subject: lawrence comment on wind regs
Attachments: CT Siting Council Wind Turbine Siting Standards Meeting.pdf

Carriann Mulcahy

Secretary II

(860) 827-2940

From: wnstddoc [mailto:wnstddoc@yahoo.com]
Sent: Wednesday, October 12, 2011 1:45 PM
To: Mulcahy, Carriann
Subject: Re: October 13, 2011 Special Meeting/Forum on Wind Regulations

Dear Ms. Mulcahy:

I have attached a written statement concerning my views on the development of wind turbine siting regulations in CT. I am sorry to say that due to an out of town commitment I will not be able to attend the forum.

Respectfully,
David R. Lawrence, MD

From: "Mulcahy, Carriann" <Carriann.Mulcahy@ct.gov>
Sent: Fri, September 23, 2011 2:26:33 PM
Subject: October 13, 2011 Special Meeting/Forum on Wind Regulations

Carriann Mulcahy

Secretary II

(860) 827-2940

David R. Lawrence, MD, Jeannie H. Lemelin, LPN
30 Flagg Hill Road
Colebrook
Winsted, CT 06098

To: The Connecticut Siting Council

Re: Wind Turbine Siting Regulations for the State of CT

Dt: 12 October 2011

Dear Members of the Connecticut Siting Council:

As a resident of CT I would like to express my views on setting siting standards for wind turbines in this state:

Whereas there are no uniform siting standards in the United States of America and

whereas there are no siting standards in the State of Connecticut and

whereas the Connecticut Siting Council has a statutory obligation to protect the residents of Connecticut,

wind turbine siting standards must take into consideration the potential deleterious effects of wind turbines on such residents. Such protection must supersede politically motivated pressures to promote "green energy". Therefore, siting standards must incorporate guidelines that conform with World Health Organization recommendations regarding sound exposure, i.e. limiting sound levels to 35dBA at residences.

Furthermore, siting standards should be based on scientific evidence to the extent possible regarding the dangers of wind turbines. When such evidence is based on extrapolation of data and/or observations that require further study for verification, standards must ensure the ongoing safety of residents until any controversies can be scientifically and satisfactorily resolved.

The Connecticut Siting Council is urged to take into consideration siting standards that have been developed by other communities based on their own research and deliberations, for example the proposed standards that have been adopted by certain towns in Maine. Should the

Connecticut Siting Council choose to ignore the experiences of others and set substandard regulations for reasons contrary to the benefit of the residents of Connecticut, the reputation of State of Connecticut as a whole will be stained. I have previously provided to the Connecticut Siting Council World Health Organization recommendations on sound exposure, as well as scientific studies that demonstrate deleterious effects from wind turbines at sound levels greater than 35dBA. I have also provided documentation of studies demonstrating deleterious effects of infrasound and low frequency sound in laboratory studies. Important studies are attached as references. I urge the Council to carefully consider the merit of these documents during its deliberations.

Sincerely,

David R. Lawrence, MD

References:

World Health Organization: Guidelines for Community Noise. (1999)

World Health Organization: Night Noise Guidelines for Europe (2009)

Response to Noise From Modern Wind Farms in The Netherlands Pedersen, et al, Journal of the Acoustic Society Am 126 (2), Aug 2009

Wind Turbine Noise, Annoyance and Self-Reported Health and Well-Being in Different Living Environments Pedersen, et al, Occup Environ Med 2007; 64: 480-486

Low Frequency Noise and Annoyance HG Leventhal, Noise and Health, 2004, 6;23, 59-72

A Review of Published Research on Low Frequency Noise and its Effects- Prepared for DEFRA HG Leventhal, DEFRA publication, May 2003

Health Effects of Exposure to Ultrasound and Infrasound: Report of the Independent Advisory Group of Non-ionizing Radiation-Health Protection Agency (United Kingdom) Publication, February 2010)

Simple Guidelines for Siting Wind Turbines to Prevent Health Risks Kamperman, G and James, R Noise-Con 2008 Paper

Disconnect Between Turbine Noise Guidelines and Health Authority Recommendations Harrison, J, white paper, Queen's Univ, Ontario (date unknown)

Maine Town Wind Turbine Siting Ordinances:

Town of Dixmont-<http://www.hcpcme.org/environment/energy/Dixmontwindordinance.pdf>

Town of Jackson-http://penbay.org/energy/raggedmtn/ordinances/jackson_me_windordinance%20march2010.pdf

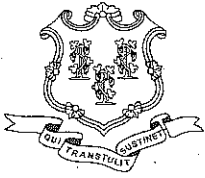
Town of Montville-http://penbay.org/energy/raggedmtn/ordinances/montville_windordfinal2010.pdf

Town of Phillips-<http://highlandmts.org/wp-content/uploads/2010/09/PhillipsWindEnergyFacilityOrdinance.pdf>

Town of Thorndike-http://penbay.org/energy/raggedmtn/ordinances/thorndike_wind_ord_2010.pdf

Town of Wilton-http://penbay.org/energy/raggedmtn/ordinances/wilton_me_windord_2010.pdf

Town of New Vineyard-<http://highlandmts.org/wp-content/uploads/2011/03/New-Vineyard.pdf>



STATE OF CONNECTICUT

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www.ct.gov/csc

October 13, 2011

David R. Lawrence, MD
Jeannie H. Lemelin, LPN
30 Flagg Hill Road
Colebrook, CT 06098

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Dr. and Mrs. Lemelin:

The Connecticut Siting Council (Council) is in receipt of your recent e-mail correspondence, dated October 13, 2011, concerning wind energy.

Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda.

Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

A handwritten signature in cursive script that reads "Linda Roberts".

Linda Roberts
Executive Director

LR/MB/laf

Bachman, Melanie

From: Sue Murray <suemur@sbcglobal.net>
Sent: Thursday, October 13, 2011 8:11 AM
To: CSC-DL Siting Council
Subject: Wind Energy Public Forum 10/13/11
Attachments: Hartland Resident Wind Energy Forum Comments to the SitingCouncil 101311.doc

Good morning-
Please add the attached document to the public record.

Add my e-mail address to the distribution list for updates.

Thanks,
Sue Murray
Hartland, CT

Consider the environment before printing

Susan C. Murray
106 Peck Orchard Road
Hartland, CT 06027
860-653-5345
suemur@sbcglobal.net

Chairman and Honorable Council Members
CONNECTICUT SITING COUNCIL
Ten Franklin Square
New Britain, CT 06051
siting.council@ct.gov

Date: October 13, 2011

Subject: WIND ENERGY PUBLIC FORUM – 10/13/11

Dear Siting Council,

I would like to thank your council for setting up the public forum on regulations for wind energy. Personally, I think alternate energy is needed, but the safety of the public should not be compromised.

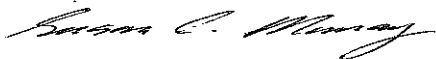
In addition, the goals and plans of each community as written in their ten year Plan of Conservation & Development, should be heavily weighted as decisions for need & location are reviewed, as importantly as each towns regulations.

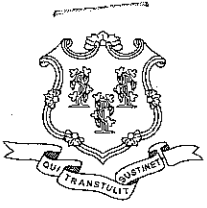
Often towns know better what is consistent with their community's vision for the future, than a council who knows nothing of the town. I think deep consideration for towns input for integration into your new regulations are a must.

I give you credit for providing the public forum, and ask you continue the open discussion until regulations are established to provide our people a sound, safe and mutually agreed upon set of regulations which will benefit us now and generations to come.

Please add me to your e-mail list of notices & updates.

Thank you for the Council's review,





STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

October 13, 2011

Susan C. Murray
106 Peck Orchard Road
Hartland, CT 06027

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Ms. Murray:

The Connecticut Siting Council (Council) is in receipt of your recent e-mail correspondence, dated October 13, 2011, concerning wind energy.

Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda. Your e-mail address has been added to our wind regulations e-mail distribution list.

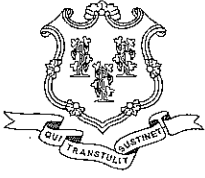
Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

A handwritten signature in cursive script that reads "Linda Roberts".

Linda Roberts
Executive Director

LR/MB/laf



STATE OF CONNECTICUT

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Ten Franklin Square, New Britain, CT 06051

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www.ct.gov/csc

September 29, 2011

Kathleen Wilson
Prock Hill Road
Colebrook, CT 06021

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Ms. Wilson:

The Connecticut Siting Council (Council) is in receipt of your recent e-mail correspondence, dated September 28, 2011, concerning wind energy.

The Council will hold a public forum on the adoption of regulations for the siting of wind projects on Thursday, October 13, 2011, beginning at 1:30 PM until 5:00 PM, and continuing from 6:30 PM until 9:00 PM in Hearing Room One, Ten Franklin Square, New Britain, Connecticut. The purpose of this public forum is to gather information related to the siting of wind projects. A transcript will be made of the public forum and will be available at the Council's office. Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda.

Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

Linda Roberts
Executive Director

LR/MB/laf

Fontaine, Lisa

From: Ksw [ksw2@aol.com]
Sent: Wednesday, September 28, 2011 11:40 PM
To: CSC-DL Siting Council
Cc: ksw2@aol.com
Subject: Adoption of Regulations for the Siting of Industrial Wind Farms in CT

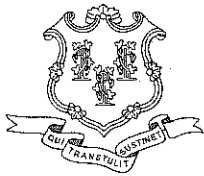
Dear Members of the Connecticut Siting Council,

I understand that Connecticut currently has no regulations for the siting of industrial wind turbines and that the Council has been charged by the State Legislature (Public Act 11-245) to create regulations by July 1, 2012 that will cover setbacks, including considerations of tower height and distance from neighboring properties; flicker; a requirement for the developer to decommission the facility at the end of its useful life; different requirements for projects of different sizes; ice throw; blade shear; noise; and impact on natural resources; and a requirement for a public hearing for wind turbine projects. Other considerations should include the cost and impact of building and maintaining transmission lines, the impact on wildlife, the geological feasibility of the proposed site to support the weight of industrial wind turbines, and the feasibility of the proposed site to generate enough energy from wind to make the project worthwhile.

The adoption of regulations for the siting of industrial wind farms in CT is crucial for the long term health and safety of the residents of our state. Industrial wind turbines stand up to 492 feet tall. There is no circumstance under which such an industrial structure should be sited in residential areas in any town.

Sincerely,
Kathleen Wilson
Resident of Colebrook, CT

9/29/2011



STATE OF CONNECTICUT

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E-Mail: siting.council@ct.gov

www.ct.gov/csc

September 27, 2011

Dr. Roy and Andrea Hitt
P.O. Box 61
Winchester Center, CT 06094

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Dr. and Mrs. Hitt:

The Connecticut Siting Council (Council) is in receipt of your recent e-mail correspondence, dated September 25, 2011, concerning wind energy.

The Council will hold a public forum on the adoption of regulations for the siting of wind projects on Thursday, October 13, 2011, beginning at 1:30 PM until 5:00 PM, and continuing from 6:30 PM until 9:00 PM in Hearing Room One, Ten Franklin Square, New Britain, Connecticut. The purpose of this public forum is to gather information related to the siting of wind projects. A transcript will be made of the public forum and will be available at the Council's office. Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

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Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

Linda Roberts
Executive Director

LR/MB/laf

Fontaine, Lisa

From: r HITT [hitt_roy_e@sbcglobal.net]
Sent: Sunday, September 25, 2011 12:12 PM
To: CSC-DL Siting Council
Subject: Wind Tower Height

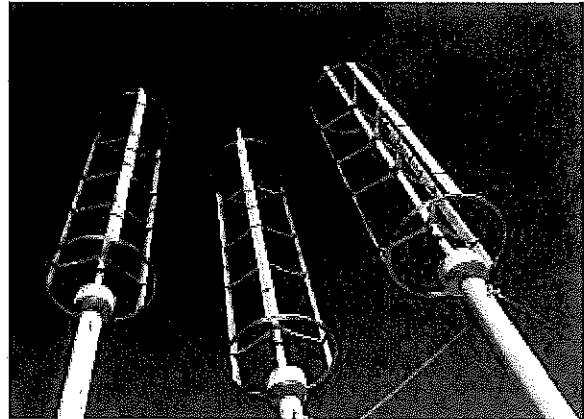
No wind tower need be more than 10 meters tall (@ 30') to produce maximum energy. In fact, towers taller than 10 meters have been proven inefficient and their rusting hulks litter the world. Connecticut needs to consider new technology in the race to produce green energy while maintaining an environment friendly to people and animals, preserving the beauty which makes our state a tourist destination in all seasons. We ought not repeat the mistakes of the past and contribute to the tens of thousands of rusting, abandoned hulks of industrial sized wind turbines. We don't need to do so in order to be a state that welcomes alternative energy. We should consider the quality of our neighbors lives, the loss of jobs and income which poor siting and over-sized turbines produce. There ARE ALTERNATIVES.

Experimental wind-farm produces tenfold power increase

by Kate Melville

Caltech researchers say the power output of wind-farms can be increased by an order of magnitude - at least tenfold - simply by optimizing the placement of vertical wind turbines on a given plot of land. Details of the experimental wind-farm, located in northern Los Angeles County, appear in the *Journal of Renewable and Sustainable Energy*.

The experimental wind-farm houses two-dozen 1.2-meter-wide vertical-axis wind turbines (VAWTs). Vertical turbines that have rotors and look like eggbeaters sticking out of the ground. Each turbine is 10 meters tall.



Caltech's John Dabiri, who leads the research, said that despite improvements in the design of conventional propeller-type wind turbines, wind-farms remain inefficient. In such farms, the individual turbines have to be spaced far apart so they don't interfere aerodynamically with neighboring turbines, with the result that "much of the wind energy that enters a wind-farm is never tapped," says Dabiri.

Designers compensate for the energy loss by making bigger blades and taller towers, to suck up more of the available wind and at heights where gusts are more powerful. "But this brings other challenges," Dabiri says, such as higher costs, more complex engineering problems and a larger environmental impact.

The solution, according to Dabiri, is to focus instead on the design of the wind-farm itself, to maximize its energy-collecting efficiency at heights closer to the ground. While winds blow far less energetically at, say, 30 feet off the ground than at 100 feet, "the global wind power available 30 feet off the ground is greater than the world's electricity usage, several times over," he says. "The key is to ensure they're the right turbines, arranged in the right way."

VAWTs provide an important advantage in that they can be positioned very close to one another. This lets them capture nearly all of the energy of the blowing wind and even wind energy above the

9/26/2011

farm. Having every turbine turn in the opposite direction of its neighbors, the researchers found, also increases their efficiency, perhaps because the opposing spins decrease the drag on each turbine, allowing it to spin faster. Dabiri got the idea for using this type of constructive interference from his studies of schooling fish.

from: DR. Roy and Andrea Hitt, PO Box 61, Winchester Center, CT 06094

860-379-6870

Fontaine, Lisa

From: r HITT [hitt_roy_e@sbcglobal.net]
Sent: Sunday, September 25, 2011 11:56 AM
To: CSC-DL Siting Council
Subject: CT deserves NEW AGE WIND TECHNOLOGY

from Dr. Roy & Andrea Hitt, PO Box 61, Winchester Center, CT 06094 860-379-6870

Please let CT enter the New Age of Wind Technology - We do not have to make the mistakes of a decades old technology when the prospects for efficient, people friendly wind energy are so clear. See the referenced article from a NY Times op-ed by Paul Krugman:

by Kate Melville

Caltech researchers say the power output of wind-farms can be increased by an order of magnitude - at least tenfold - simply by optimizing the placement of vertical wind turbines on a given plot of land. Details of the experimental wind-farm, located in northern Los Angeles County, appear in the *Journal of Renewable and Sustainable Energy*.

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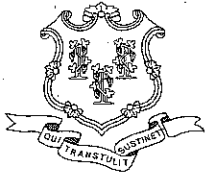
Caltech's John Dabiri, who leads the research, said that despite improvements in the design of conventional propeller-type wind turbines, wind-farms remain inefficient. In such farms, the individual turbines have to be spaced far apart so they don't interfere aerodynamically with neighboring turbines, with the result that "much of the wind energy that enters a wind-farm is never tapped," says Dabiri.

Designers compensate for the energy loss by making bigger blades and taller towers, to suck up more of the available wind and at heights where gusts are more powerful. "But this brings other challenges," Dabiri says, such as higher costs, more complex engineering problems and a larger environmental impact.

The solution, according to Dabiri, is to focus instead on the design of the wind-farm itself, to maximize its energy-collecting efficiency at heights closer to the ground. While winds blow far less energetically at, say, 30 feet off the ground than at 100 feet, "the global wind power available 30 feet off the ground is greater than the world's electricity usage, several times over," he says. "The key is to ensure they're the right turbines, arranged in the right way."

VAWTs provide an important advantage in that they can be positioned very close to one another. This lets them capture nearly all of the energy of the blowing wind and even wind energy above the farm. Having every turbine turn in the opposite direction of its neighbors, the researchers found, also increases their efficiency, perhaps because the opposing spins decrease the drag on each turbine, allowing it to spin faster. Dabiri got the idea for using this type of constructive interference from his studies of schooling fish.

9/26/2011



STATE OF CONNECTICUT

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E-Mail: siting.council@ct.gov

www.ct.gov/csc

September 27, 2011

Bernard R. Adams
397 Smith Hill Road
P.O. Box 189
Colebrook, CT 06021

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Mr. Bernard:

The Connecticut Siting Council (Council) is in receipt of your recent e-mail correspondence, dated September 26, 2011, concerning the public forum on wind regulations.

The Council will hold a public forum on the adoption of regulations for the siting of wind projects on Thursday, October 13, 2011, beginning at 1:30 PM until 5:00 PM, and continuing from 6:30 PM until 9:00 PM in Hearing Room One, Ten Franklin Square, New Britain, Connecticut. The purpose of this public forum is to gather information related to the siting of wind projects. A transcript will be made of the public forum and will be available at the Council's office. Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda.

Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

Linda Roberts
Executive Director

LR/MB/laf

Fontaine, Lisa

From: Bernard R. Adams [Barney@bernardadams.net]
Sent: Monday, September 26, 2011 11:20 AM
To: CSC-DL Siting Council
Cc: tommckeon@colebrooktownhall.org; John Garrells (jongar@snet.net); Edna H. Travis (ednatravis@yahoo.com)
Subject: PUBLIC FORUM ON THE ADOPTION OF WIND REGULATIONS IN CONNECTICUT

In accordance with your notice for this forum, I attach my comments on the proposed regulations. Please incorporate them into the public record for this proceeding. Thank you.

Bernard R. Adams

397 Smith Hill Road
PO Box 189
Colebrook, Ct 06021
860-379-7459

VIA EMAIL

September 26, 2011

Re: ADOPTION OF WIND REGULATIONS IN CONNECTICUT

Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Dear Sir or Madam:

I have received notice of your public forum on wind power regulations. This important area clearly warrants your careful consideration. As directed by the legislature in Public Act 11-245 these new regulations will cover a variety of complex issues including, but not limited to, setbacks, including considerations of tower height and distance from neighboring properties; flicker; a requirement for the developer to decommission the facility at the end of its useful life; different requirements for projects of different sizes; ice throw; blade shear; noise; and impact on natural resources; and a requirement for a public hearing for wind turbine projects. These are complex issues that require significant expertise both to understand the underlying issues and to create an appropriate regulatory framework. As a result, I believe it is critical for the Siting Council to retain an independent, outside expert to assist it in creating these regulations.

In addition to expert assistance, I think it is critical that the Siting Council recognize that, no matter what the regulations provide, industrial wind turbines should NEVER be sited in pre-existing residential zones in any town. This ensures the public from possible adverse impacts caused by these large machines. The preservation of public safety, peaceful enjoyment and property values needs to be recognized by your regulations. The clearest and most straight forward way to accomplish this is to ban industrial wind turbines on land which is zoned residential at the time of any application for a permit to the Siting Council.

9/26/2011

Thank you for your consideration.

Very truly yours,

Bernard R. Adams

646-262-6330 (cell)
860-516-2422 (fax)
barney@bernardadams.net

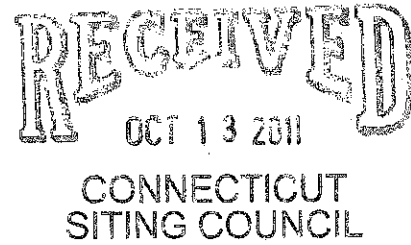
This message and its attachment(s), if any, are confidential information intended only for the person(s) named above. Any other distribution, copying or disclosure is strictly prohibited. If you have received this e-mail in error, please notify us immediately and delete all copies of the e-mail without making a copy.

9/26/2011

Rec'd of pub. l.
10/13/11

North Canaan DRAFT Wind Energy System Regulations 3/14/2011

- I. Purpose
- II. Definitions
- III. Applicability
- IV. Procedure for Review
- V. Conditional Use Permit Standards
- VI. Abandonment
- VII. Violation
- VIII. Penalties



I. Purpose: The purpose of these Regulations is to accommodate distributed generation wind energy systems up to 1 megawatt capacity in appropriate locations, while minimizing any adverse visual, safety and environmental impacts of the system. In addition, this ordinance provides a permitting process for small wind energy generation systems up to sixty (60) kilowatt capacity in Zones I, C, R-A and R, and for utility scale systems up to one (1) megawatt capacity in Zones I and R-A, to ensure compliance with the provisions and requirements of the standards established herein.

II. Definitions:

“Fall Zone” – The potential fall area for the wind energy system, calculated as 110% of the **total height** as the radius around the center point of the base of the **tower**.

“Flicker” – The moving shadow created by the sun shining on the rotating blades of the **wind turbine**.

“Flicker Zone” The 180% hemisphere running east through north to west of the moving shadow created by the sun shining on the rotating blades of the wind turbine, calculated as 800% of **tower height** as the radius around the center point of the base of the **tower**.

“Ice Shedding” – Any accumulated ice falling from the **tower** or **wind turbine** due to gravity or the mechanical forces of the rotating blades.

“Ice Throw” – Any accumulated ice propelled some distance from the **wind turbine** by the mechanical forces of the rotating blades.

“Landowner” – The owner of the land upon which the wind energy system is located.

“Meteorological Tower (met tower)” – Includes the tower, base plate, anchors, guy wires and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment for anemometers and vanes, data loggers, instrument wiring, and any

telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location.

“Net Metering” – The difference between the electricity supplied over the electric distribution system and the electricity generated by the **small wind energy system** which is fed back into the electric distribution system over a billing period.”

“Operator” – The entity responsible for the day-to-day operation and maintenance of the **wind energy system**, including any third party subcontractors.

“Owner” – The entity or entities with equity interest in the **wind energy system**, including their respective successors or designees.”

“Power Grid” - The transmission system created to balance the power and demand for electricity by consumers in New England.

“Primary Structure” – The structure that one or more persons occupy for the majority of the time for personal or business reasons. Primary structures include residences and commercial buildings, for example.”

“Shadow” - The outline created on the surrounding area by the sun shining on the **wind energy system**. Shadowing refers to the effect of **tower** or stationary **wind turbine** blade shadow on principle structures. For shadow effects caused by moving **wind turbine** blades, see Flicker, above.

“Small Wind Energy System” – A wind energy conversion system consisting of a single **wind turbine**, a single **tower**, and associated control and conversion electronics, having a rated capacity of sixty (60) kilowatts or less, and will be used primarily for on-site consumption.

“Sound Limit” – sound produced by permanent stationary sources of noise associated with the wind energy system under normal operating conditions.

“Throw Zone” – The potential ice throw area for the wind energy system, calculated as 200% of the **total height** as the radius around the center point of the base of the **tower**.

“Tower” - The support structure to which the **wind turbine** is attached.

“Tower Height”- The height above grade of the fixed portion of the tower, excluding the **wind turbine**.”

“Tower Setback” - The minimum required distance between the **tower** and any **primary**

structure on the lot subject to this permit or an existing **primary structure** on another lot, or a specified line such as an adjacent lot, primary structure, public or private right-of-way, permanently protected open space, easement, future street right-of-way as identified through an official control or buffer line that is required to remain free of structures unless otherwise provided herein.

“Total Height” – The vertical distance from ground level to the tip of the **wind turbine** blade when it is at its highest point.

“Utility Scale Wind Energy System” - A wind energy conversion system consisting of a **wind turbine**, a **tower**, associated control and conversion electronics and on-site access and distribution infrastructure including substations , having a rated capacity of one (1) megawatt or less, and which will be used primarily for commercial sale.

“Wind Energy System” - The collection of windpower structures and related infrastructure for which a single permit may be sought.

“Wind Turbine” – The blades and associated mechanical and electrical conversion components mounted on top of the **tower** whose purpose is to convert kinetic energy of the wind into rotational energy used to generate electricity.”

“Viewscape” - The range of view from designated points toward the **wind energy system** including natural and man-made components.

III. Applicability:

- A. Wind energy systems located in the Town of North Canaan, Litchfield County, Connecticut require a special permit from the Town Planning and Zoning Commission. The object of the application is to have all pertinent information collected and available for review by relevant parties.

IV. Procedure for review:

- A. In accordance with [cite relevant North Canaan Zoning language] , a wind energy system shall be subject to receiving a conditional use permit prior to installation or modification thereof. The issuance of a conditional use permit shall abide with the following requirements:
 - 1. Building Permit: A building permit shall be required for installation or modification of a meteorological tower and/or a wind energy system.
 - 2. Prior to issuance of a building permit for a wind energy system, a site plan shall be submitted to the Planning Board for review. The applicant shall follow the procedural requirements of the site plan review regulations in addition to those

specified under North Canaan regulations for building permits in the Zone where the special permit to install a wind energy system is sought by the applicant, and shall include the following:

- i) Property lines and physical dimensions of the applicant's property.
- ii) Location, dimensions, and types of existing major structures on the property.
- iii) Location of the proposed wind energy system, foundations, guy anchors and associated equipment.
- iv) Setback requirements as outlined in this ordinance and required documentation of compliance therewith.
- v) The right of way of any public road that is contiguous with the property.
- vi) Any overhead utility lines
- vii) Viewshed analysis including the location of all identifiable primary structures, state or locally designated roads, historic districts and permanently protected open space with permitted public access, from which the wind energy system is visible when leaves are off the trees.
- viii) Acoustical analysis from the manufacturer or prepared by a qualified engineer documenting compliance with sound limits under these regulations.
- ix) Wind energy system specifications, including manufacturer, model, rotor diameter, blade length, tower height, total height, tower type (freestanding or guyed).
- x) For small wind energy systems where Net Metering is intended by the applicant, and for utility scale wind energy systems that will connect directly to the power grid, documentation regarding notification of the relevant utility provider of Applicant's intent to install a wind energy system.
- xi) Tower foundation blueprints or drawings with 2' contours
- xii) Tower blueprints or drawings with 2' contours
- xiii) Blueprints or drawings of any associated control and conversion electronics, on-site access and distribution infrastructure including substations, and/or service roads with 2' contours
- xiv) Electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electric Code (usually provided by the manufacturer).
- xv) Estimated costs of physically removing the wind energy system to comply with surety standards.
- xvi) Evidence of compliance or non-applicability with Federal Aviation Administration requirements.
- xvii) The site plan must be stamped by a certified engineer licensed to practice in the State of Connecticut.

3. Prior to issuance of a building permit for a Meteorological (Met) tower for the purpose of collecting data to develop a wind energy system, the following procedural requirements apply:
 - i) The construction, installation or modification of a Met tower shall require a building permit and shall conform to all applicable sections of the state building code in the Zoning district where it is constructed.
 - ii) Met towers shall be permitted on a temporary basis not to exceed three years.
 - iii) The clearing of natural vegetation shall be limited to that which is necessary for the construction, operation and maintenance of the Met tower and as otherwise prescribed by applicable laws, regulations and ordinances.
 - iv) Met towers shall adhere to small wind energy system standards under these regulations with regard to construction, design and setbacks.
 - v) A conditional use permit is not required to construct, install or modify a Met tower. Prior to issuance of a building permit, the building inspector shall ensure the met tower complies with the small wind energy standards.

V. Conditional use permit standards:

A. Design and Construction

1. Wind energy systems shall conform to applicable industry standards including those of the American National Standards Institute ("ANSI"). Applicants shall submit certificates of design compliance that equipment manufacturers have obtained from Underwriters Laboratories or an equivalent third party.
2. A professional engineer shall certify, as part of the building permit application, that the foundation and tower design of the wind energy system are within accepted professional standards, given local soil, elevation and climate conditions.
3. During construction the Applicant shall secure the services of a certified electrical engineer to inspect and oversee the entire electrical generating and delivery system for safety and quality assurance and report his/her findings to the Town of North Canaan.
4. All service roads for utility-scale wind energy systems shall meet specifications for a town road in the the Town of North Canaan.

B. Site Requirements:

1. Small wind energy systems may be approved by special permit in Zoning Districts R-A, R, C and I. Utility-scale wind energy systems may be approved by special permit in Zoning District I and R-A.
2. Each small wind energy system requires a minimum 5 acre lot. Each Utility-scale wind energy system requires a minimum 25 acre lot.

3. Wind energy systems shall be sited in a manner that does not result in significant shadowing, or any flicker impacts, for primary structures beyond the property where the installation is constructed. The applicant bears the burden of proving through scientific analysis that flicker effect does not impact primary structures within the flicker zone.
4. No portion of the tower or its foundation shall be located on hydric soils or soil classes rated by the Natural Resources Conservation Services (NRCS) as susceptible to flooding, and any associated service roads and electric delivery system infrastructure shall minimize adverse impacts to areas with these soil classes.

C. Tower:

1. Maximum total height for a small wind energy system application is eighty-five (85) feet and for a utility-scale wind energy system is three hundred and forty (340) feet. The applicant shall provide evidence that the proposed tower height does not exceed the height recommended by the manufacturer of the wind turbine.
2. The minimum blade height at the end of the rotor blades above ground shall be thirty (30) feet.
3. Wind turbines may only be attached to freestanding or guy wired monopole towers. Lattice towers are explicitly prohibited.
4. All utility-scale wind energy systems shall be equipped with a redundant braking system including aerodynamic over speed controls and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulations shall not be considered a sufficient braking system for over speed protection.

D. Setbacks: In addition to any setbacks that pertain to structures within the zoning district when the wind energy system is located, the following setbacks apply to wind energy systems under these regulations;

1. All wind energy systems shall have tower setbacks a distance of 110% of the total height (the fall zone) from the following resources and sensitive areas:
 - a) Any primary structure;
 - b) All property lines;
 - c) Any overhead utility line or other tower, including other wind towers;
 - d) Any municipal boundary;
 - e) Any overhead utility line or other tower, including other wind towers
2. All wind energy systems shall have tower setbacks a distance of 200% of the total height (the throw zone) from the following resources and sensitive areas:
 - a) Any existing primary structure beyond the property line;
 - b) Any municipal boundary;
 - c) Any overhead utility line or other tower, including other wind towers;
 - d) Any public road or right of way;
 - e) Permanently protected open space with permitted public access

3. All wind energy systems shall have tower setbacks a distance of 800% of the total tower height within the flicker zone from the following resources and sensitive areas for the purposes of minimizing shadow and eliminating Flicker effects;
 - a) Any existing primary structure without documentation based on approved software designed for the purpose demonstrating that said primary structure would not be impacted by flicker effects and would not be significantly affected by shadowing;
 - b) Any municipal boundary;
 - c) Any overhead utility line or other tower, including other wind towers
 - d) Any public road or right-of-way, unless written permission is granted by the government entity with jurisdiction over the road for shadowing and/or flicker effects from a utility-scale wind energy system, but at no time shall the setback be less than the throw zone.

E) Viewscape Impacts:

- 1) The arrangement of wind energy systems should minimally impact the viewscape of primary structures, designated scenic roads, historic districts or permanently protected open space with public access. Clustering of utility scale wind energy systems, subject to setback restrictions contained under V.4.D of these regulations, should be done so as to limit the angular viewshed to 20 degrees as viewed one mile from the closest wind energy system. Utility scale wind energy systems which exceed this will be considered to have significant viewscape impact.
2. The Planning and Zoning Commission shall assess the viewscape impact with regard to the number of primary structures impacted, potential impacts on future residential development, proximity to permanently protected open space with public access, and views from within historic districts or locally or state designated scenic roads. Projects with significant viewscape impact may be denied permits based on that basis alone.

F) Sound Limit:

1. The noise produced under normal operating conditions shall not to exceed sixty (60) decibels using the A scale (dBA), as measured from any primary structure excepting only those located on the property, public right-of-way, municipal open space or permanently protected open space with public access.

G) Electrical Components:

1. All electrical components of wind energy systems shall conform to local, state and national codes, and relevant national and international standards (e.g. ANSI and International Electrical Commission).

2. All power transmission lines from any wind energy system to on site-substations or connecting to the power grid shall be underground.

H) Lighting:

1. No wind energy system shall be artificially lit unless such lighting is required by the Federal Aviation Administration (FAA). The applicant for the wind energy system must demonstrate compliance with all FAA requirements. If lighting is required, the applicant shall provide a copy of the FAA determination to establish the required marking and / or lights for the wind energy system, with preference for those options with the least impact on migrating birds.

I) Color:

1. Towers and blades shall be painted white or gray or non-reflective, unobtrusive color that blends in with the environment.
2. No advertizing or commercial logos or insignias will be visible on the tower or wind turbine.

J) Clearing:

1. The clearing of natural vegetation shall be limited to that which is necessary for the construction, operation and maintenance of the wind energy system and as otherwise prescribed by applicable laws, regulations and ordinances.

VI. Abandonment:

- A. At such time as the wind energy system is scheduled to be abandoned or discontinued, the operator will notify the Building Inspector by certified U.S. mail of the proposed date of abandonment or discontinuation of operations.
- B. The Planning Board shall require the applicant to provide a form of surety (e.g. post a performance bond, provide a letter of credit or establish an escrow account) at the time of construction to cover costs of removal in the event of abandonment or discontinuation of operations. The applicant shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism to accommodate the rate of inflation over 15 years. The surety will be used to reimburse the operator and / or owner for documented costs of physical removal up to but not exceeding the full amount of the surety (and any accrued interest) if they physically remove the wind energy system. Removal costs beyond that amount are the sole expense of the operator and / or owner.

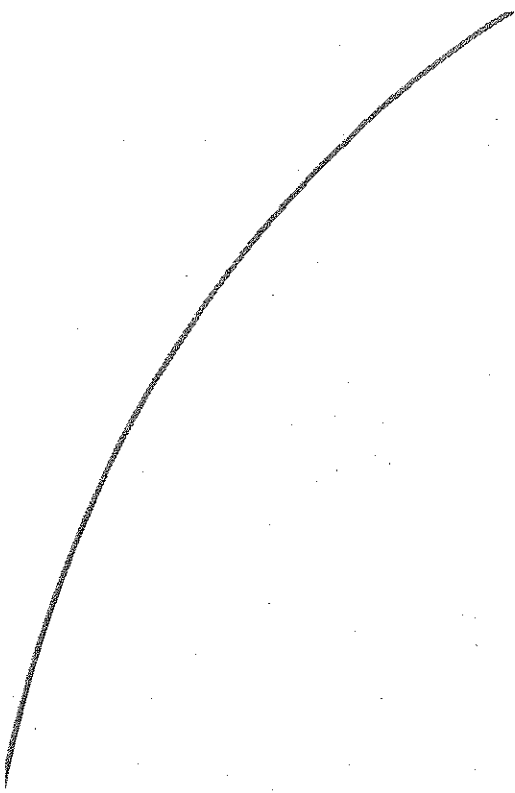
- C. Upon abandonment or discontinuation of use, the operator shall physically remove the wind energy system within 90 days from the date of abandonment or discontinuation of use. This period may be extended at the request of the operator at the discretion of the Building Inspector. "Physically remove" shall include, but not be limited to:
 - 1. Removal of the wind turbine and tower and related above grade structures.
 - 2. Restoration of the location of the wind energy system and area impacted by supporting infrastructure to its natural condition, except that any landscaping, grading or below-grade foundation may remain in the after-conditions.
- D. In the event that the operator fails to give such notice, the system shall be considered abandoned or discontinued if the system is out of service for a continuous 6-month period. After the 6 months of inoperability, the Building Inspector shall issue a Notice of Abandonment to the operator of the wind energy system and/or the owner of the property if they are one in the same or there is no operator to contact. The operator and/or owner shall have the right to respond to the Notice of Abandonment within 30 days from the Notice receipt date. The Building Inspector shall withdraw the Notice of Abandonment and notify the operator and /or owner that the Notice has been withdrawn if the operator and /or owner provides information that demonstrates the wind energy system has not been abandoned.
- E. If the operator and / or owner fails to respond to the Notice of Abandonment or if after review by the Building Inspector it is determined that the wind energy system has been abandoned or discontinued, the operator and /or owner shall remove the wind turbine and tower at their sole expense within 90 days of date of abandonment or discontinuation of use.
- F. If the operator and / or owner fails to physically remove the wind energy system as prescribed after the Notice of Abandonment procedure, the Town shall have the authority to enter the subject property and use the surety to pay to physically remove the wind energy system.

VII Violation:

It is unlawful for any person to construct, install or operate a wind energy system that is not in compliance with this regulation or with any condition contained in the site plan review issued pursuant to this regulation.

VIII Penalties:

Any person who fails to comply with any provision of these regulations or a building permit issued pursuant to these regulations shall be subject to enforcement and penalties as allowed by Connecticut Law [cite statutory authority]



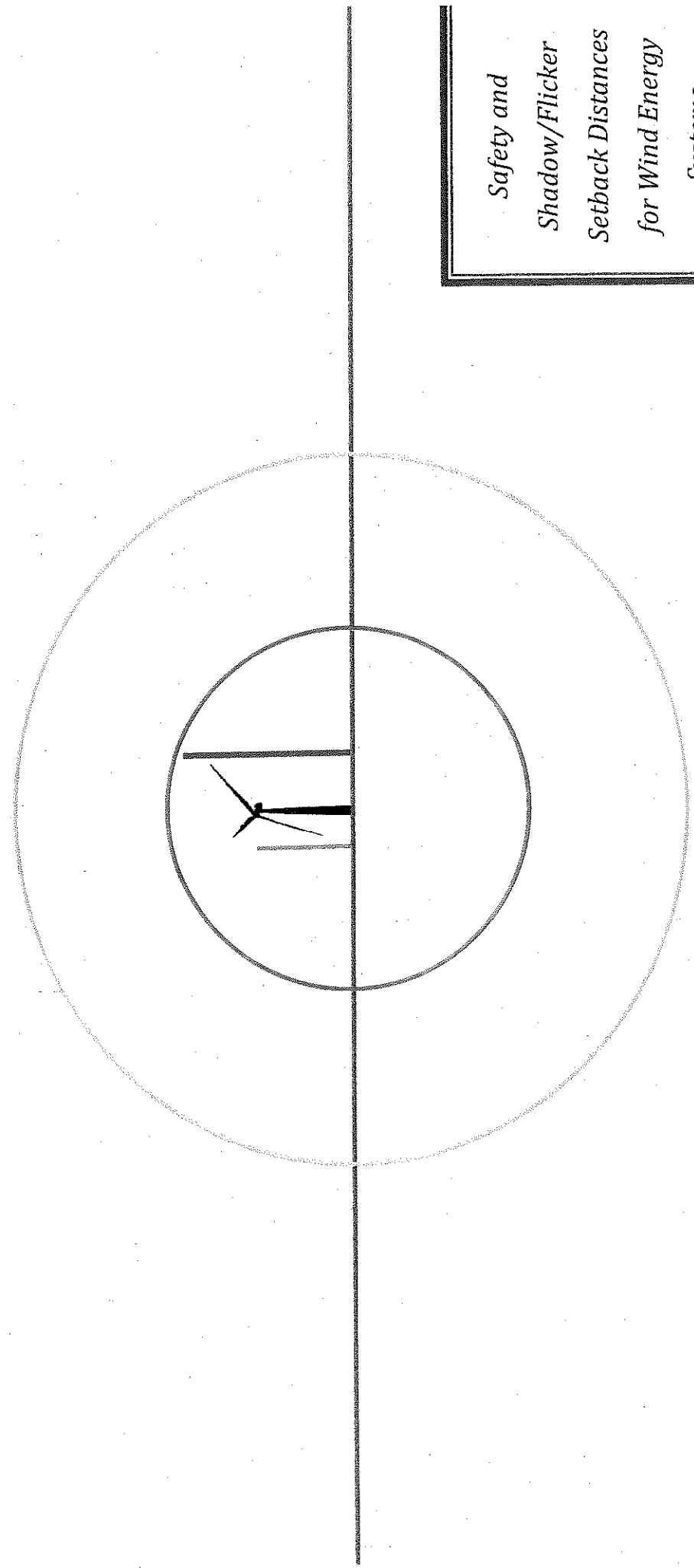
Tower Height (excluding Turbine)

Total Height (from base to tip of Turbine Blade at vertical)

Fall Zone (Radius at center point of base 110% Total Height)

Throw Zone (Radius at center point of base at 200% Total Height)

Flicker Zone (180° Hemisphere facing north with radius at center point of base at 800% of Tower Height)



Safety and
Shadow/Flicker
Setback Distances
for Wind Energy
Systems



Tower Height (excluding Turbine)



Total Height (from base to tip of Turbine Blade at vertical)



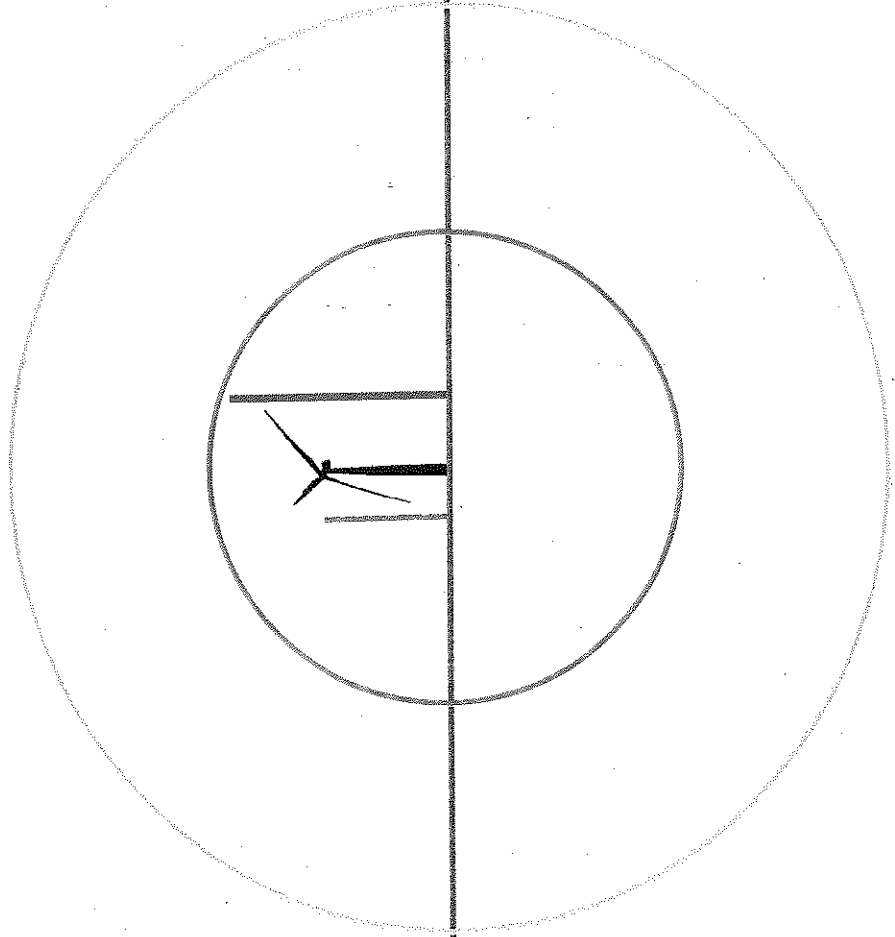
Fall Zone (Radius at center point of base 110% Total Height)



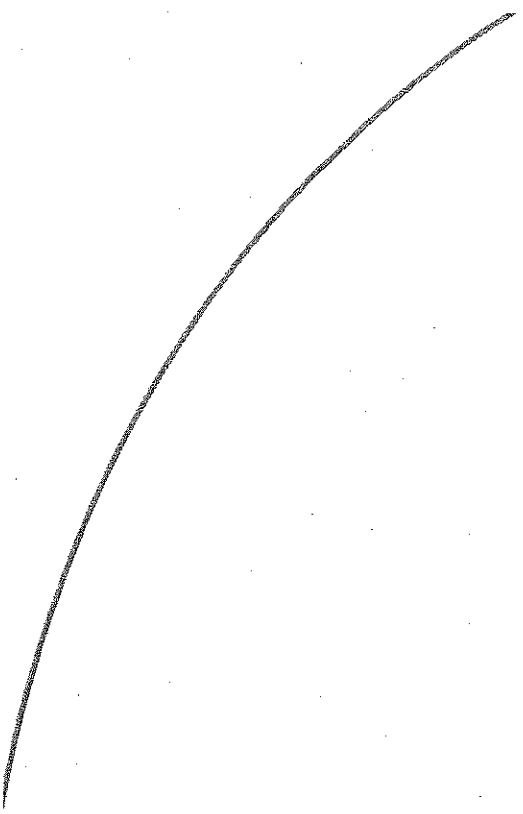
Throw Zone (Radius at center point of base at 200% Total Height)








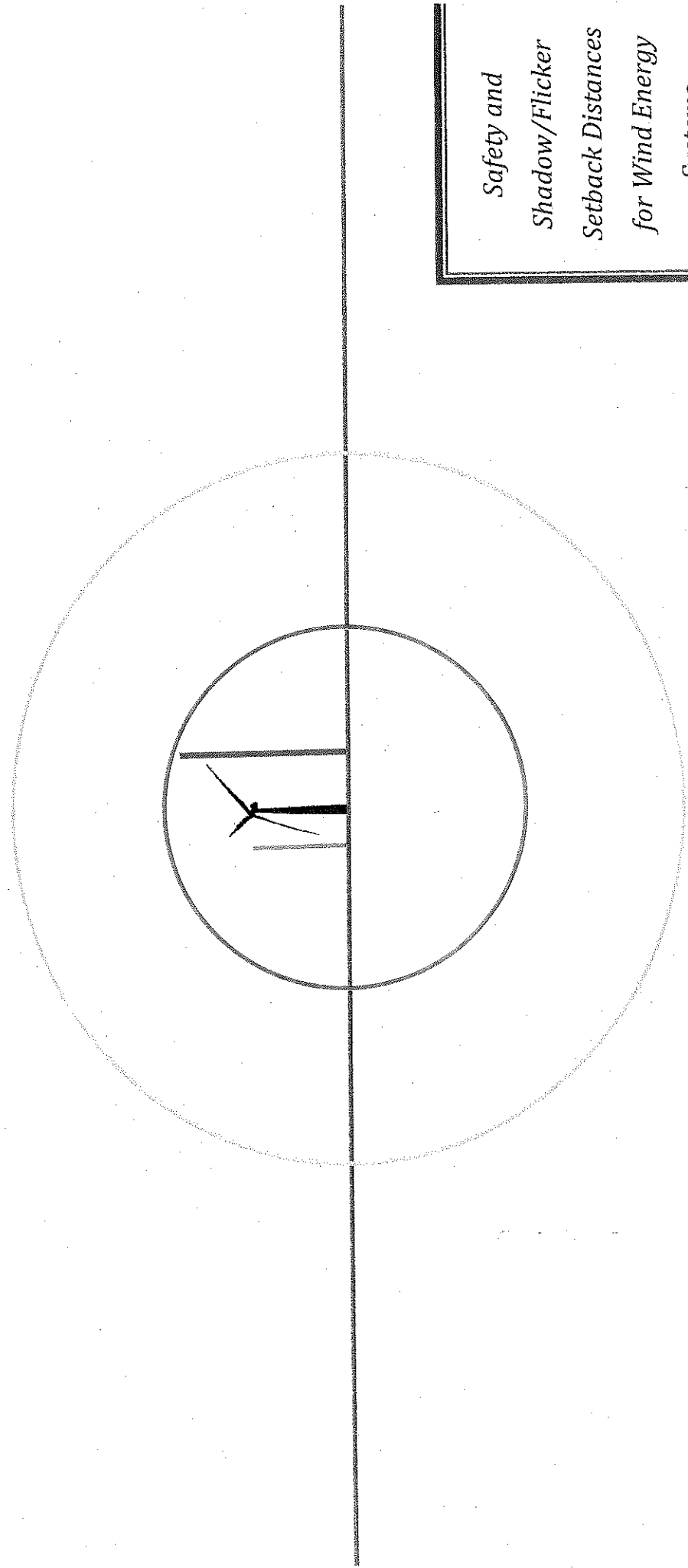
Flicker Zone (180° Hemisphere facing north with radius at center point of base at 800% of Tower Height)



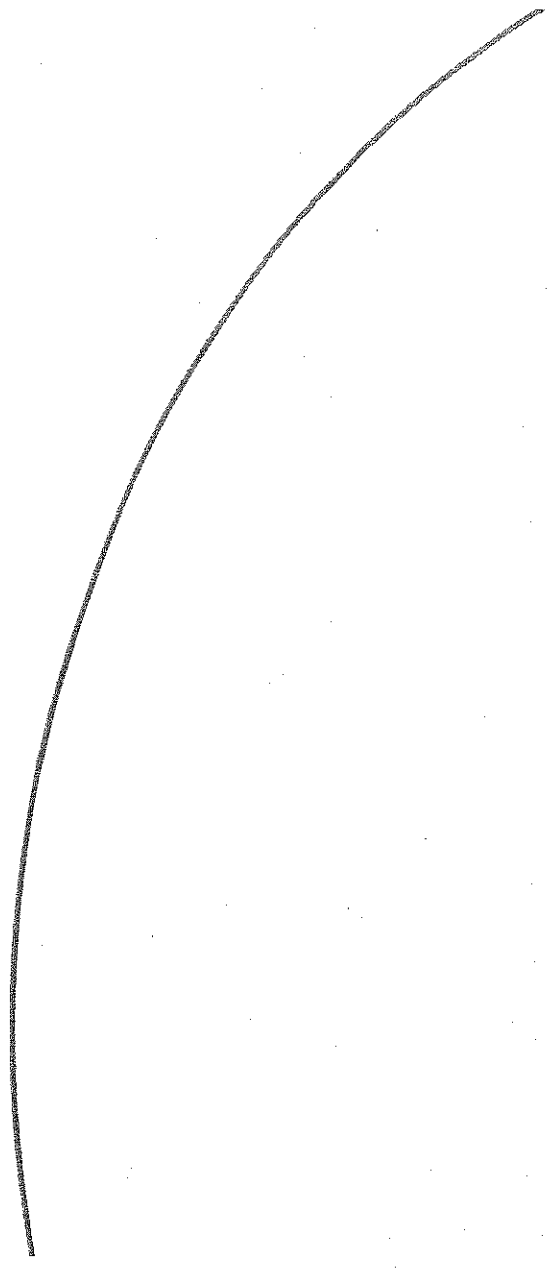
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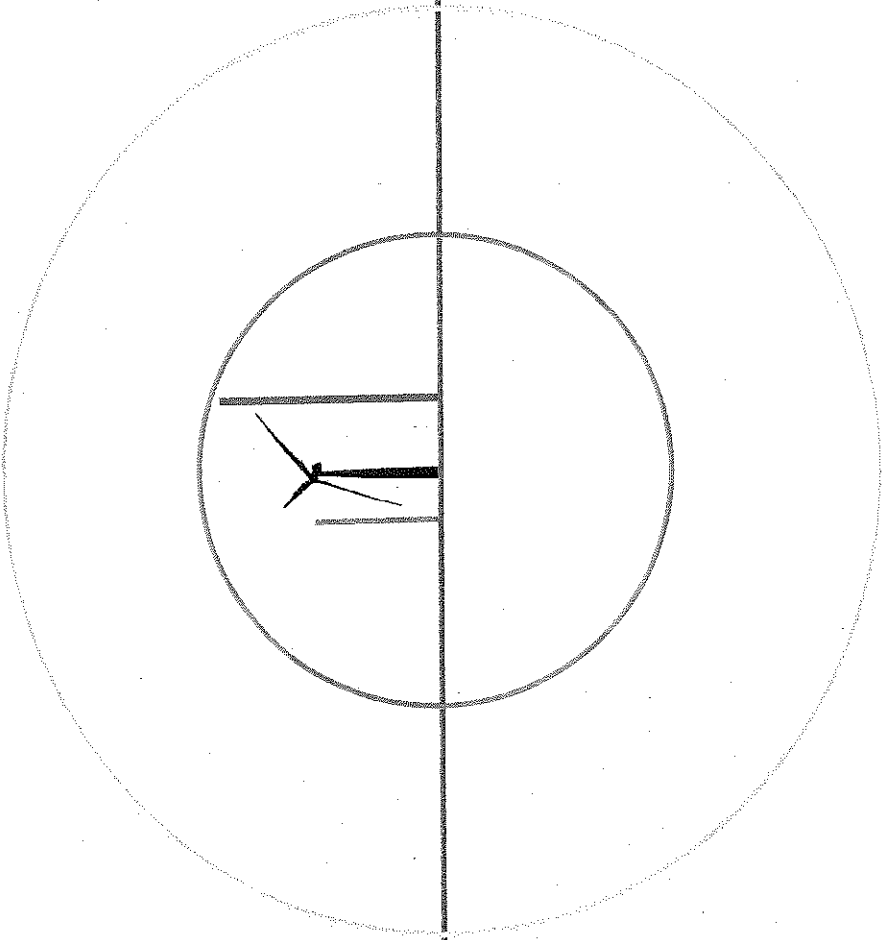
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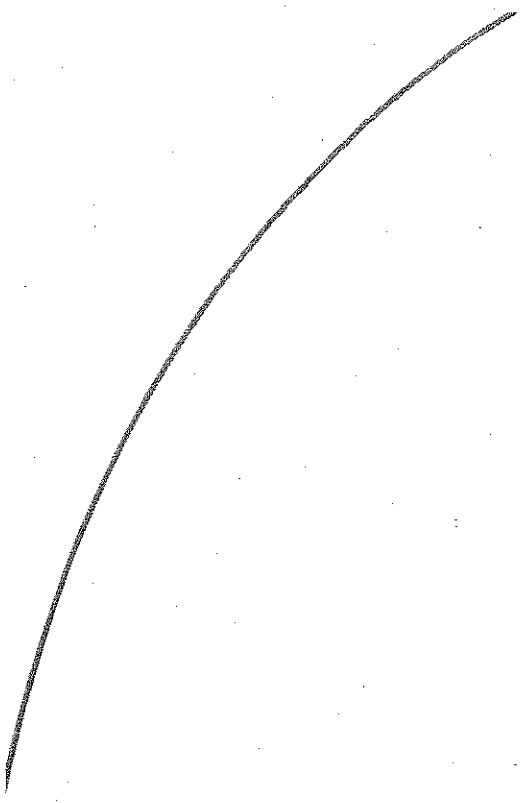
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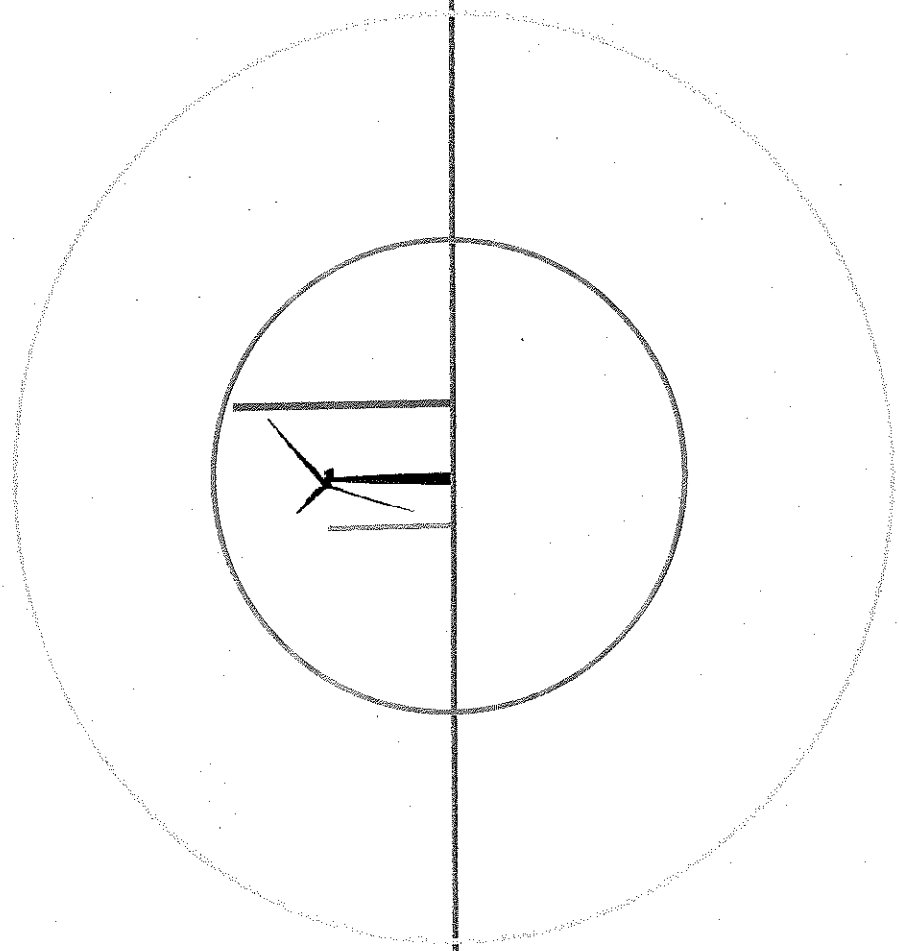
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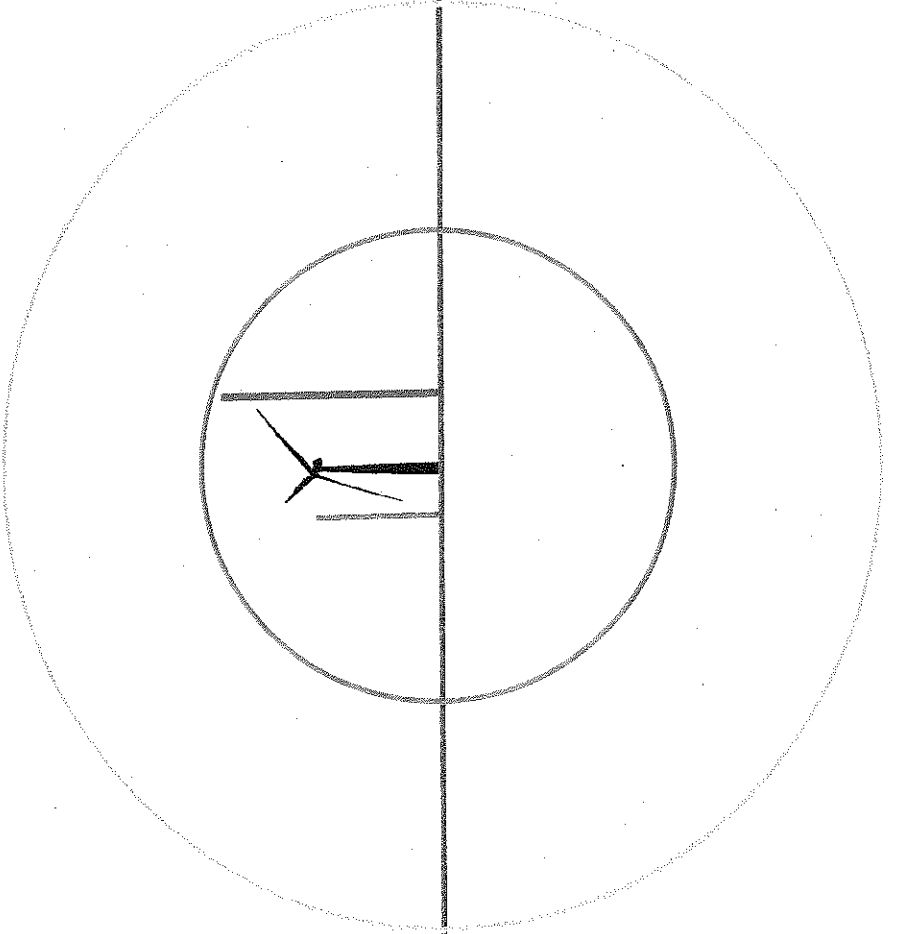
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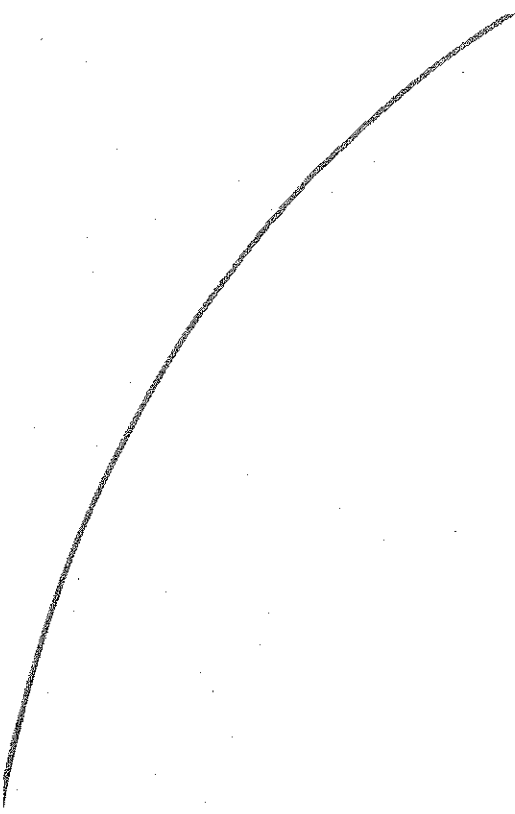
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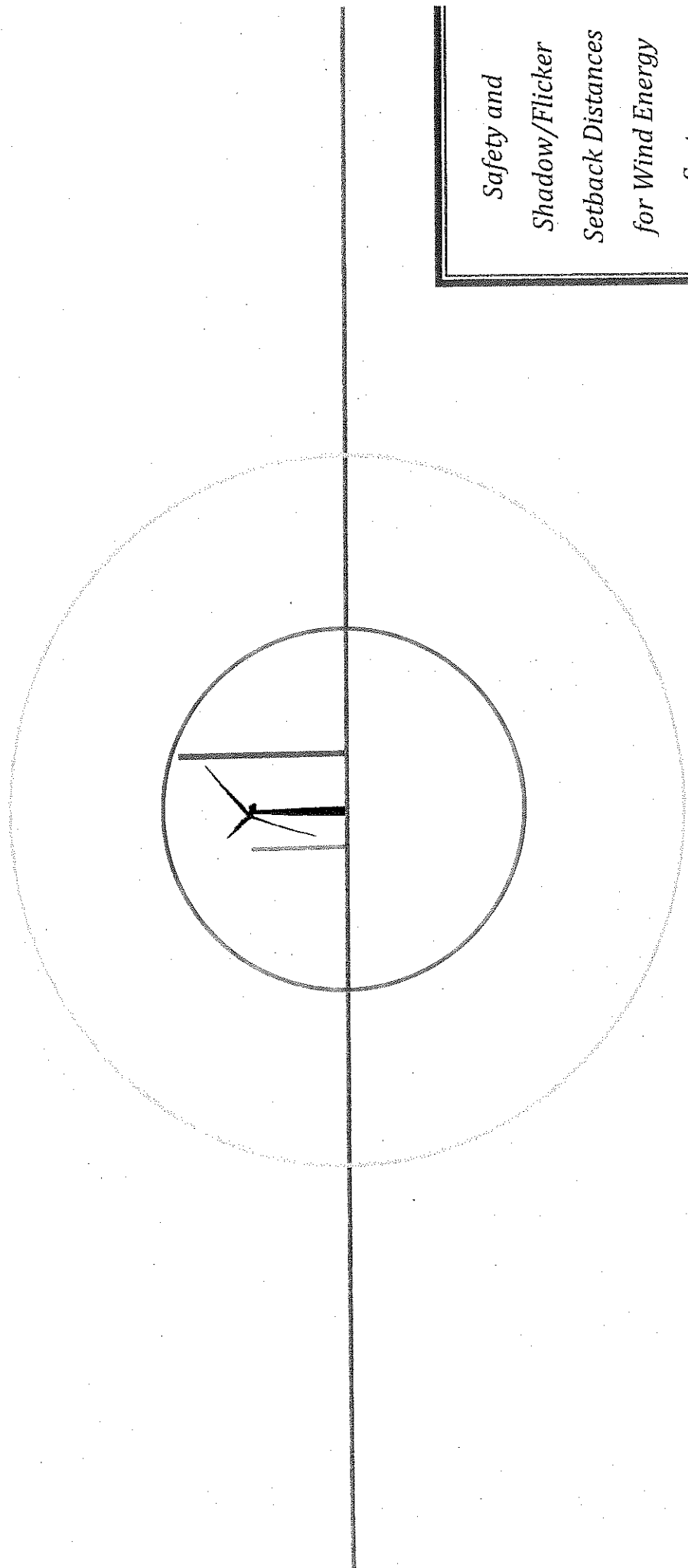
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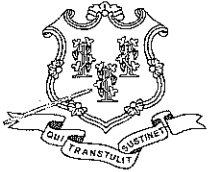
Fontaine, Lisa

From: Askham, Patty <Patty.Askham@cga.ct.gov>
Sent: Wednesday, October 12, 2011 11:38 AM
To: CSC-DL Siting Council
Subject: October 13 Testimony
Attachments: 20111012113159535.pdf

<<20111012113159535.pdf>>

I respectfully request that the attached be entered as testimony for your October 13, 2011 public hearing.
Kevin

Senator Kevin Witkos
8th District
LOB Room 3900
Hartford, CT 06106
860 240 0436



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

October 13, 2011

The Honorable Kevin D. Witkos
State Senate – 8th District
Legislative Office Building, Room 3900
Hartford, CT 06106-1591

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245

Dear Senator Witkos:

The Connecticut Siting Council (Council) is in receipt of your recent correspondence, dated October 12, 2011, concerning wind energy.

Your written statement and the statements submitted at the public forum will become part of the regulation-making record under the Uniform Administrative Procedure Act for Council consideration during the regulation-making process.

Please note you can view other documents related to this uncontested administrative proceeding on our website www.ct.gov/csc through the link Pending Proceedings. You may also keep apprised of Council events on the website calendar and agenda.

Thank you for your interest and concern in this very important matter. Your letter will be entered in the written comment file related to this public forum proceeding.

Very truly yours,

Linda Roberts
Executive Director

LR/MB/laf



State of Connecticut

SENATE

SENATOR KEVIN D. WITKOS
EIGHTH DISTRICT
DEPUTY MINORITY LEADER

RANKING SENATOR
ENERGY AND TECHNOLOGY COMMITTEE
GENERAL LAW COMMITTEE
CHAIRMAN
INTERNSHIP COMMITTEE
MEMBER
PUBLIC SAFETY COMMITTEE

Good evening Chairman Stein and members of the Siting Council and thank you for the opportunity to submit testimony. My name is Kevin Witkos and I am the State Senator representing the 8th district and a ranking member on the Energy and Technology Committee.

As the council knows, the topic of regulations for wind projects has been heavily discussed over the past several months. Regulations are needed but at the same time we do not want to discourage the continued investment in wind projects. It is important that the Siting Council establish regulations that protect the people around the wind project but does not discourage future wind projects from being proposed and built.

Currently, a minimum of 10 states have regulations pertaining to wind projects. Some states allow local municipalities to make regulations and some states have state wide regulations. These regulations span a wide spectrum of issues, including setback distances, effect on scenic character, noise studies and regulations concerning the proper decommissioning of the project.

I believe one of the most important issues on which you will have to develop regulations for, is setback distance. A proper setback is essential for the safety of the people who live near these turbines. States such as Ohio and South Dakota set a specific setback distance. In fact, setback is the only issue South Dakota's regulations covers. A proper setback distance will alleviate fears over the turbine falling and doing destruction to the surrounding houses. A proper setback distance will also help prevent distractions if the turbine is near a road.


Shadow flicker is another issue that must be addressed in these regulations. Shadow flicker is distracting and a nuisance. Not only is this a safety issue, but medical studies to date are inconclusive as it pertains to health related problems. Shadow flicker could also have an effect on property value, making it difficult for people to sell their home or causing them to sell their house at a loss. The same can be said for the noise of the blades. If a turbine is too close to a neighborhood, the entire neighborhood could see its property value drop drastically. Again, this is a perfect example of why we need regulations that balance the needs of the residents in the area of these turbines and the need to continue to develop clean, renewable forms of energy.

Regulations must be in place for the decommissioning of the turbine. Developers should be required to post a bond for the decommissioning of the project before they are given the permit to build. We cannot leave municipalities and local residents on the hook for old turbines that are no longer in use

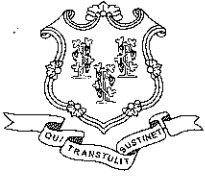
Living in Connecticut we all know and treasure the natural beauty of our state. Regulations need to be in place that will protect the environment during the construction, operation, and ultimately decommissioning of these types of projects. These regulations should protect not only the environment around the turbine but the scenic footprint of the landscape.

I want to thank you all again for the chance to submit this testimony. I know that the job ahead is not an easy one. It is always difficult to find the right balance between proper regulations and encouragement in investment. This hearing tonight is a good first step, and I look forward to the Siting Council's decisions.

Thank You

A handwritten signature in black ink, appearing to read "Kevin Witkos". The signature is fluid and cursive, with a large initial "K" and "W".

Kevin Witkos
State Senator 8th district



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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www.ct.gov/csc

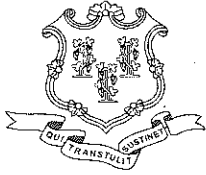
PLEASE PRINT CLEARLY

Public Sign-up List

Please Sign Up To Speak

WIND REGULATIONS - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245.

	NAME
1.	Stella Samuels
2.	Joyce Hemington
3.	Sally Wagner
4.	Tim Riley
5.	Paul Corry B N & C
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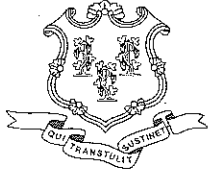
Elected Official Sign-up List*

Please Sign Up To Speak

*Note: Elected officials include State Legislators and Chief Elected Officials of Municipalities

WIND REGULATIONS - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245.

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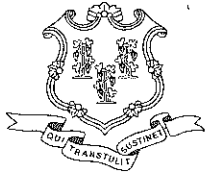
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WIND REGULATIONS - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245.

	NAME
1.	Timothy Assouh
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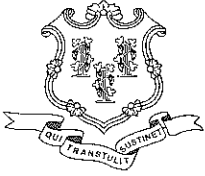
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PLEASE PRINT CLEARLY

Public Sign-up List Please Sign Up To Speak

WIND REGULATIONS - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245.

	NAME
16.	TOM SWANK
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October 18, 2011

TO: Parties and Intervenors

FROM: Linda Roberts, Executive Director *LR*

RE: **WIND REGULATIONS** - Connecticut Siting Council adoption of regulations for the siting of wind projects pursuant to Public Act 11-245.

Notice is hereby given that the transcript of the wind forum regulations was received at the office of the Connecticut Siting Council on October 18, 2011.

LR/MB/laf

c: Council Members

Fontaine, Lisa

From: nadinec@postreporting.com
Sent: Monday, October 17, 2011 11:23 AM
To: Weston, Jessica; Fontaine, Lisa
Subject: 10-13-11 PUBLIC FORUM WIND REGULATIONS
Attachments: 1013siti2.doc; 1013siti.doc

STATE OF CONNECTICUT

SITING COUNCIL

* * * * *

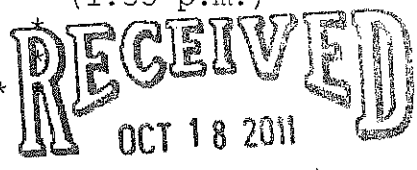
PUBLIC FORUM

* OCTOBER 13, 2011

WIND REGULATIONS

* (1:35 p.m.)

* * * * *



BEFORE: ROBIN STEIN, CHAIRMAN

CONNECTICUT SITING COUNCIL

BOARD MEMBERS: Colin Tait, Vice Chairman
Brian Golembiewski, DEP Designee
Larry Levesque, PURA Designee
Edward Wilensky
Daniel P. Lynch, Jr.
James J. Murphy, Jr.
Dr. Barbara Currier Bell

STAFF MEMBERS: Linda Roberts, Executive Director
Melanie Bachman, Staff Attorney

HEARING RE: PUBLIC FORUM - WIND REGULATIONS
OCTOBER 13, 2011

1 . . . Verbatim proceedings of a hearing
2 before the State of Connecticut Siting Council in the
3 matter of a Public Forum - Wind Regulations, held at the
4 Connecticut Siting Council, Ten Franklin Square, New
5 Britain, Connecticut, on October 13, 2011 at 1:35 p.m.,
6 at which time the parties were represented as
7 hereinbefore set forth . . .

8
9
10
11 CHAIRMAN ROBIN STEIN: Good afternoon,
12 everybody. It's the public forum on wind regulations.
13 I'm calling this meeting to order. This is Thursday,
14 October 13, 2011, at approximately 1:35. There will be a
15 continuation of this hearing also at 6:30 p.m. for those
16 who are unable to come this afternoon.

17 My name is Robin Stein. I'm the Chairman
18 of the Connecticut Siting Council. Other members of the
19 Council with us today are Professor Tait, the Vice-
20 Chairman, Brian Golembiewski, the Designee from the
21 Department of Energy and Environmental Protection, Larry
22 Levesque, who is the Designee from the Public Utilities
23 Regulatory Authority.

24 Members are Dr. Bell, Mr. Wilensky. I

HEARING RE: PUBLIC FORUM - WIND REGULATIONS
OCTOBER 13, 2011

1 understand that Attorney, I'm sorry, Senator Murphy is
2 caught in traffic. Dan Lynch is also here. Members of
3 the staff, Melanie Bachman, Staff Attorney, Lisa
4 Fontaine, the Custodian of Record, the court reporter,
5 Gail Gregoriades, and our Executive Director, Linda
6 Roberts, who has some interesting items in front of her.

7 This public forum is being held pursuant
8 to Public Act 11-245, which requires the Siting Council
9 to adopt regulations for the siting of wind projects.

10 In developing these regulations, the
11 Siting Council decided that a public forum to gather
12 information and suggestions regarding these regulations
13 would be helpful at this time, even though not required
14 by the statute.

15 Once draft regulations are prepared by the
16 Council, a public hearing may be held at a subsequent
17 date in conformance with the Uniform Administrative
18 Procedures Act.

19 Sign-up sheets are available at the door,
20 one for elected officials and one for the public.

21 Public Act 11-245, copies of which are
22 available on the table at the door, require that wind
23 siting regulations must at least consider the following
24 topics. Setback distances from neighboring properties,

HEARING RE: PUBLIC FORUM - WIND REGULATIONS
OCTOBER 13, 2011

1 shadow flicker, decommissioning of turbines, requirements
2 for wind turbine projects of different sizes, ice throw,
3 blade throw, noise and impact on natural resources.

4 We ask each person making a statement
5 during the public forum to be concise and confine his or
6 her remarks to the subject matter before the Council.

7 As many of you know, the Council had
8 earlier this year acted on three petitions for the siting
9 of wind projects, one in Prospect and two in Colebrook.
10 We would like to make it clear that we are not here to
11 rehash or review these petitions and decisions by the
12 Council.

13 I would also like to note that under
14 Public Act 11-245, no new application or petition for the
15 siting of wind turbines can be acted upon until the
16 regulations are adopted and that there are no
17 applications or petitions pending before the Council.

18 The Siting Council has jurisdiction over
19 wind turbine facilities with a generating capacity of
20 more than one megawatt. Small and medium sized wind
21 turbines, therefore, do not fall under the Council's
22 jurisdiction or regulations, but, rather, fall under
23 jurisdiction of local commissions.

24 We are here to listen to your comments,

HEARING RE: PUBLIC FORUM - WIND REGULATIONS
OCTOBER 13, 2011

1 and no Cross-Examination or rebuttal statement will be
2 permitted. The statements, both orally and in writing,
3 will become part of the record.

4 We encourage you to submit written
5 material if you feel that would be helpful, in addition
6 to or in lieu of your spoken comments.

7 If you would like to cite regulations from
8 other jurisdictions that may be helpful, please provide
9 us with the citation.

10 Please bear in mind that there are a
11 number of interested parties here today that would like
12 to be heard, and we ask the statements be limited to
13 three minutes or less.

14 We have a stoplight set up that will turn
15 yellow when there's one minute left, and I wish to note,
16 for those who are here and for the benefit of your
17 friends and neighbors, who are unable to join us for this
18 public hearing, that you or they may send written
19 statements to the Council's office or e-mail written
20 comments to the Council at siting.council@ct.gov.

21 A verbatim transcript will be made of this
22 public forum and deposited at the Council's office.

23 As you come to the podium, please give
24 your name and address and, if applicable, the

HEARING RE: PUBLIC FORUM - WIND REGULATIONS
OCTOBER 13, 2011

1 organization you represent. I apologize in advance for
2 any mispronunciation of names on my part. Professor
3 Tait?

4 MR. COLIN TAIT: We'd like to urge you,
5 with any technical information, that you do submit it in
6 writing, rather than just orally. Even though there's a
7 transcript of the record, it will be helpful if it is in
8 writing for us to have a good chance to look at it
9 carefully.

10 CHAIRMAN STEIN: Thank you, Professor
11 Tait. At this point, I'll start by calling from the list
12 of public officials. Mayor Chatfield?

13 MAYOR BOB CHATFIELD: Bob Chatfield, 25
14 Cornell Avenue, Prospect, Mayor of Prospect. I guess, as
15 we look back, you could say that Prospect was probably at
16 the center of this whole function that we're going
17 through now, and I have just a couple of comments on your
18 proposed regulations that you might be thinking of, the
19 first one being ice throw.

20 Depending upon the altitude of any future
21 proposed wind turbines, the icing problem may be more
22 serious the higher you are, and that was one of the
23 concerns that we had.

24 The other major concern for opposition in

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1 Prospect that there were no regulations. Well you are
2 here seeking, and you have until July of next year to
3 produce some regulations.

4 And you've heard both sides between
5 Prospect and Colebrook, so I'm sure you have very good
6 knowledge of what the pros and cons are.

7 And I'm just going to leave it at that,
8 unless anybody has any questions, but I would just remind
9 you again about the ice throw, because that was my main
10 concern, based on our altitude.

11 CHAIRMAN STEIN: I appreciate it. My only
12 question is is that tie of any special significance to
13 the hearing?

14 MAYOR CHATFIELD: All I wear are cartoon
15 ties. I have about 50 of them, and I do have very small
16 ones for other more serious meetings, not that this isn't
17 serious.

18 I'll get right to it. I wear a very
19 conservative tie to a funeral, for example, but that's
20 all I wear. And if I had one with a wind turbine, I
21 would have worn it, but I don't have one.

22 CHAIRMAN STEIN: Thank you.

23 MAYOR CHATFIELD: All right. Thank you
24 for your time.

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1 CHAIRMAN STEIN: Mr. Abbott?

2 MR. TIM ABBOTT: Thank you. My name is
3 Tim Abbott, A-B-B-O-T-T, and I live at 59 Prospect Street
4 in Canaan, Connecticut. I'm also an alternate member of
5 the Canaan P and Z.

6 Earlier this year, I was asked by our
7 Commission to help draft regulations that North Canaan
8 might consider for not just small wind energy
9 installations, but utility scale ones.

10 We considered up to one megawatt,
11 understanding that you had jurisdiction beyond that, but
12 we think that some of what we found in our research and
13 some of our draft regulations might be of interest to
14 you. I have brought copies.

15 I would highlight one thing from them,
16 besides saying that they are still draft, and that is
17 that we attempted to come up with measurable buffers that
18 were scalable to the height of towers, so we dealt with
19 issues like wind throw, we dealt with issues like
20 flicker, and we dealt with which resources we felt needed
21 to be buffered by those distances, not just principal
22 dwellings, but other resources.

23 And that's contained here, and I'd be
24 happy to leave you a copy.

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1 CHAIRMAN STEIN: Thank you very much.

2 I'll go to the public sign-up list. Stella Somers?

3 MS. STELLA SOMERS: My name is Stella
4 Somers. I'm here on behalf of my husband and I. We live
5 at 19 Rock Hall Road in Colebrook, Connecticut.

6 On June 17, 2011, the Connecticut
7 Commission on Culture and Tourism released a study on the
8 economic benefits of historical preservation. Governor
9 Malloy summed up the findings by saying by rehabilitating
10 our existing building stock, we create jobs, increase
11 local tax revenue, and use our irreplaceable
12 architectural heritage to benefit our state in the 21st
13 century.

14 By preserving historic architecture, you
15 are preserving human history. If a Siting Council
16 decision destroys the integrity of a significant old
17 home, both literally and figuratively, society loses a
18 unique window onto the economic, social and cultural
19 conventions of a bygone era.

20 By understanding the past, people are
21 better able to cope with the present and even the future.
22 Regulations regarding any energy producing facilities
23 should include the following.

24 Petitioners must submit visibility studies

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1 with their petitions analyzing the extent to which each
2 turbine will be visible by properties beyond the borders
3 of the project site for a minimum of five miles.

4 Visibility studies must include both maps
5 and photo simulations from vantage points, including all
6 neighboring properties, all scenic and historic and
7 natural sites within at least two miles, all scenic or
8 significant hiking trails and lookout points, and such
9 other places as the Council may deem appropriate.

10 Any visibility analysis must be conducted
11 using peer reviewed and critiqued computer software. If
12 any historic site is located within two miles of the
13 proposed turbine project site, the petitioner must
14 conduct a more detailed visibility analysis, which must
15 include photo simulations from the historic site.

16 The detailed visibility analysis must be
17 submitted to, one, the Council, two, to the State
18 Historic Preservation Office, and, three, to the owner of
19 the historic property.

20 Regulations should prohibit the siting of
21 any wind turbine project if the SHPO has determined the
22 project will have an adverse effect on a historic
23 resource.

24 In response to Petition 984, SHPO

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1 determined that the siting of wind turbines on Rock Hall
2 Road would have a negative impact on Rock Hall, a member
3 of the National Register of Historic Places.

4 The nine members of the Siting Council's
5 own biographies, as posted on the Connecticut Siting
6 Council's website, do not reference any level of
7 professional expertise specifically in either
8 architecture or historic preservation.

9 That notwithstanding and despite a site
10 visit related to Petition 984 that brought the Council
11 within 2,000 feet of Rock Hall during a leaf-off period,
12 not a single member of the Siting Council thought it
13 significant enough to see for themselves the impact the
14 proposed project would have on an irreplaceable historic
15 resource that is the sole surviving example north of the
16 Mason-Dixon line of one of the nation's leading
17 architects.

18 SHPO does not take its stewardship of
19 historic resources lightly. Regulations should prohibit
20 the siting of any wind turbine project if the SHPO has
21 determined the project will have an adverse affect.

22 Not doing so is an affront to the
23 oversight process, leads to involvement by the National
24 Advisory Council on Historic Preservation, and creates a

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1 burdensome expense of both private and public funds and
2 undermines a national policy supporting historic
3 preservation. Thank you.

4 CHAIRMAN STEIN: Thank you. Do you want
5 to leave a copy of your comments? Oh, we have it? Okay.
6 Joyce Hemingson?

7 MS. JOYCE HEMINGSON: Joyce Hemingson,
8 representing myself and my husband, Richard. We live at
9 44 Rock Hall Road in Colebrook.

10 Upton Sinclair once wrote it is difficult
11 to get a man to understand something when his job depends
12 on not understanding it. Having participated in the
13 Siting Council's public hearings and proceedings for
14 Petitions 980, 983 and 984, I hope that this public forum
15 is not another black hole.

16 A great deal of the public's time and
17 money was spent providing the Council with information
18 that was ignored in making its decisions, including the
19 fact that Connecticut lacked wind turbine siting
20 regulations.

21 Dr. David Lawrence, who could not be here
22 today, has submitted written testimony again about the
23 World Health Organization's noise recommendation of 35
24 dB(A).

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1 You may know that Maine, which has the
2 most installed on-shore wind of any New England state, is
3 considering lowering their permitted nighttime noise
4 level from 45 dB(A) to 42 dB(A).

5 Connecticut's noise regulations date to
6 1978 and don't address the unique features of noise from
7 wind turbines, such as infrasound. However,
8 Connecticut's regulations clearly say that compliance
9 must be at the property's boundary, not at a residential
10 receptor.

11 If the Council follows the current state
12 regulations with a daytime level of 61 dB(A) and
13 nighttime of 51 dB(A), it amounts to a sound increase of
14 four times over ambient for a quiet rural area.

15 New regulations should require no more
16 than a 6 dB(A) increase over ambient noise levels at
17 property lines.

18 Noise modeling and monitoring by the
19 owner/operator, both before and after construction, needs
20 to follow a standard protocol at property lines. Results
21 should be available to the public, and there needs to be
22 a standard process for addressing noise related
23 complaints or violations in a timely fashion 24/7.

24 Many complaints about noise occur at

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1 night, when the wind is stronger and people are trying to
2 sleep. The majority of audible noise issues occur within
3 a half a mile to three-quarters of a mile, according to
4 Jim Cummings of the Acoustic Ecology Institute.

5 Science-based setbacks from property lines
6 and occupied buildings would go a long way towards
7 eliminating problems with noise, infrasound, ice throw,
8 blade throw, shadow flicker, blasting zones, and general
9 safety.

10 The Council should not commandeer abutting
11 property as a place for blades to overhang, or drop ice,
12 or as a turbine fall-down area, or blasting zone.

13 Lastly, I urge the Council not to site
14 industrial wind turbines in residential areas. Huge
15 turbines are far more intrusive objects than cell towers,
16 and you are all well aware of citizens' objections to
17 those.

18 Connecticut needs to be a great place to
19 live and work, and we can't afford to make homes
20 unlivable, or unsellable, or to harm businesses that rely
21 on tourism, real estate, historic places, and outdoor
22 recreation.

23 At the Energy and Technology Committee's
24 public hearing on wind energy regulations in February,

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1 one of your members testified that the Council had all
2 the regulations it needed, and it would be using, quote,
3 "Best practices."

4 So far, you have not used best practices.
5 The public is going to stay with this regulatory process
6 until you do what's right for Connecticut.

7 CHAIRMAN STEIN: Susan Wagner?

8 MS. SUSAN WAGNER: I'm Susan Wagner from
9 Pinney Street in Colebrook, and I want to just say one
10 offensive thing in the beginning, and that is that you
11 did not pay attention to the information given to you
12 when you said there was a finding of fact that BNA could
13 achieve 30 percent capacity factor.

14 There is no place outside of the high
15 ridges of Maine that has achieved that. Even Searsburg,
16 Vermont has gotten 25.4. Lempster, New Hampshire, which
17 is on a high ridge, has 29.4.

18 And, at the other end of the scale, there
19 are two in Pennsylvania, one called Forward Wind, which
20 is getting 16.5, and one called Green Mountain, which is
21 getting 8.6. Nothing in New England when you take it
22 together as an average remotely gets to 30 percent. That
23 was just sloppy work on your part. It is not possible.

24 And they did not take into consideration

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1 the turbulent factor. Some of us in Colebrook went to
2 Vinalhaven and talked to the people there. One of the
3 issues there is turbulence. Those turbines are very
4 close together. It makes it less efficient and more
5 noisy, so they have probably less capacity.

6 I want to talk just a couple of minutes
7 about small villages, which are going to be the targets
8 for these turbines.

9 A small village, like mine, is going to be
10 devastated by these six turbines. There is no way that
11 we'll ever be able to pay for the damage done to our
12 landscape, to our roads, to our businesses.

13 We have two employers in that town, two,
14 and they will be wiped out, because they depend on
15 tourism and second homes. Every plumber in that village
16 depends partly on the jobs they get with second
17 homeowners.

18 Second homeowners are not going to come to
19 our area if we have turbines, and that is true of
20 anyplace in Litchfield County.

21 Our engine, our economic engine is tourism
22 and second homes, and you, as a Siting Council, are
23 supposed to produce, make the decision between lowest
24 reasonable cost and reliable utility against the lowest

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1 cost, and I urge you it's a price. What is the social
2 and environmental price?

3 These turbines are put up by speculators
4 to make money. They have nothing to do with energy
5 production. Most people's opinion is that something as
6 low as their capacity is not going to provide any
7 lessening of CO2 that goes into the air, and by the time
8 you've ramped up the concomitant gas generating
9 facilities or coal, you will produce more than the
10 ordinary amount of CO2, so the CO2 is going to be at
11 zero.

12 There's going to be very little gain in
13 either reduction of CO2 or in the amount of energy that's
14 produced.

15 A villager and I were driving along Route
16 44 and thinking that 7,000 or more cars go down that road
17 a day. What will happen on a snowy night or a rainy
18 night when there's flicker?

19 I think you have to consider the flicker
20 problem. It's going to be very dangerous to drive on
21 snowy nights or rainy nights when there is flicker.

22 My concern about the village is the host
23 community agreement. There's been no movement so far,
24 and you need to find a way to press investors or

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1 speculators into making a home village community
2 agreement, because, as I say, we will be devastated.

3 We think the petitions must be required to
4 enter, required, not advised or guided, but required to
5 enter into a host community agreement with the Town in
6 which a facility is located.

7 The host agreement may include revision
8 for the assessment upgrade, modification, repair, or
9 reconstruction of local roads.

10 Can you imagine what a 125-foot truck
11 would do to those tiny roads that we have? And every
12 village in Litchfield County has the same situation.

13 They must have guaranteed annual payments
14 in lieu of taxes, decommissioning, fire safety training
15 and equipment, reimbursement for Town expenses occurred
16 in reviewing the applications for building and
17 inland/wetland permits.

18 If these reviews result in extraordinary
19 expense, reimbursement for the expense of hiring
20 engineers or other experts to review plans for
21 decommissioning, and on decommissioning we think there
22 should be regulations, which require petitioners to
23 submit decommissioning plans with their petitions. That
24 was not done this last time.

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1 Such plans should provide a bond that is
2 adequate to compensate the Town for the cost of returning
3 the project site to its natural state in the event that
4 the wind project is abandoned by the owner/operator.

5 The amount of the bond may also include
6 consideration for the possible scrap or salvage value of
7 the turbine materials, but must include consideration for
8 the cost of taking down the turbines, removing the
9 turbine foundations, transporting the turbines and the
10 foundations off site to a location where they can be cut
11 into smaller pieces that can be sold for salvage or
12 otherwise disposed of.

13 Decommissioning specification should be
14 provided in sufficient detail that a contractor would be
15 able to bid to do the work, and a bonding company would
16 be able to estimate at least annually the cost of the
17 work.

18 CHAIRMAN STEIN: Excuse me, ma'am. It
19 doesn't look like we're going to have a lot of people
20 speaking, but we're trying to keep everybody --

21 MS. WAGNER: I have two sentences.

22 CHAIRMAN STEIN: Okay.

23 MS. WAGNER: No project should be approved
24 without a decommissioning plan that provides for

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1 decommissioning performance bond for the full cost of
2 decommissioning, subject to annual review and update, and
3 the Town in which the turbines are proposed to be sited
4 should have an opportunity to hire an expert to review
5 and comment on the decommissioning plan.

6 CHAIRMAN STEIN: Thank you.

7 MS. WAGNER: Any questions?

8 CHAIRMAN STEIN: We would prefer that
9 people sign in. Those are the only names I have on the
10 sign-up sheets, so is there anybody else, who wishes to
11 speak?

12 MR. TIM REILLY: Hello, all. Tim Reilly,
13 70 Woodcrest Drive, Prospect, Connecticut. If I could
14 ask a question? I know you're taking public comment,
15 there was a comment made, Mr. Chairman, that you will not
16 be reviewing the records from the decisions, or from the
17 petitions.

18 Is that to say that all that information,
19 which was gathered at great expense by both the
20 petitioners, by all petitioners, would that be considered
21 in making regulations? I would assume it would be,
22 right?

23 CHAIRMAN STEIN: The answer is we will
24 consider all information, both what has been gathered in

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1 the past and the future. What I tried to say and,
2 obviously, people didn't choose to listen, was the
3 purpose of this meeting is not to rehash the decision.

4 MR. REILLY: Those decisions are made, and
5 there's an appeal process for that, but I just want to
6 make sure all that valuable information was going to be
7 considered, because we have great interest in how these
8 regulations are going to be formed and we can be a part
9 of the process. Certainly, we felt often like weren't in
10 the petition process.

11 So, today, I'll start my comments. How
12 can a body of State officials transfer the ability to
13 earn income from one business entity to another? I would
14 say to you that that happened with your decision on June
15 2nd.

16 Having taken the risk of considerable
17 investment in refurbishing the historical Rock Hall
18 property, its owners showed the greatness of American
19 individuals willing to take risk to create opportunity
20 for themselves and jobs for their fellow neighbors.

21 Your decisions tell the American
22 entrepreneur that you are with your decisions be able to
23 transfer the opportunity to earn income to other parties,
24 other parties in this case, by the way, that can only

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1 exist through the subsidies of state and federal
2 governments.

3 So am I then to assume that those with
4 connections needed, let's say having previously been
5 responsible as Commissioner of the DPUC, they shall have
6 superior access and maybe guarantees, or are those more
7 unconnected hardworking citizens, such as the Somers,
8 owners of Rock Hall?

9 I still fail to understand how, with all
10 the evidence that's out there, that you could have ruled
11 that the noise created by these tall turbines, and this
12 relates not to the decisions, but to regulations going
13 forward, how that would have no adverse economic effects
14 on the ability for Rock Hall and its owners to protect
15 the serenity of their property, which is what those
16 patrons that go to rest there and relax rely on.

17 I just would like to close saying that we
18 believe in people's right to own homes unencumbered, to
19 have serenity and peace. We pay lots of money on our
20 mortgages to obtain that, as do business owners, like the
21 Somers, with Rock Hall.

22 We want to be part of this process, not
23 just today. I don't really understand, when you do the
24 draft regulations, if there will be hearings like this,

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1 or if it will be submitted as written testimony.

2 I expect that you'll seek public input
3 when you actually do the regulations, but we certainly
4 would appreciate being part of that process. We think we
5 can add value, and we are only looking for creating
6 guidelines for wind that make it possible and at the same
7 time protect the residents and the business owners in
8 Connecticut. Thank you.

9 CHAIRMAN STEIN: Yes?

10 MR. PAUL COREY: Good afternoon, Mr.
11 Chairman, members of the Council. Paul Corey of BNE
12 Energy. I'll keep my comments very brief.

13 I think that something that shouldn't get
14 lost in developing regulations is that wind is a good
15 thing. Wind energy produces renewable energy, which this
16 state very much needs, so the regulations that are
17 promulgated should encourage the development of wind
18 energy in a reasonable manner.

19 I think that what is laid out in the
20 statute provides reasonable guidance, in addition to all
21 the things that we've done in the prior three dockets.

22 BNE will be submitting written comments
23 for your consideration, as well. Thank you.

24 CHAIRMAN STEIN: Thank you. At this

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1 point, we're going to recess the meeting. We'll take a
2 break. Thank you.

3 (Off the record)

4 CHAIRMAN STEIN: We have one additional
5 person, who has signed up. Tom Swank, would you like to
6 come to the podium, please? Give us your name and
7 address.

8 MR. TOM SWANK: My name is Tom Swank. My
9 address is 110 Randy Drive in Madison, Connecticut. I am
10 Senior Vice President of Quantum Utility Generation.

11 We are a company that is focused on the
12 development and operation of power generation assets,
13 including wind power projects, and I appreciate you
14 allowing me the time to talk briefly about our experience
15 here in Connecticut and what we would suggest, as far as
16 putting together the siting guidelines for wind.

17 Quantum Utility Generation we recently
18 acquired the wind development business of Noble
19 Environmental Power, which is one of the larger wind
20 development companies in the United States.

21 We have developed over 1,000 megawatts of
22 projects across the country, including a number here in
23 the Northeast, in Maine, New Hampshire and New York.
24 We're the largest wind generator in New York State, the

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1 development work we did in the past, as well as developed
2 and permitted the largest plant in New Hampshire, so we
3 have a few thoughts on what we would suggest about
4 putting together the program.

5 I think the most important thing that as a
6 developer that we would like to see come out of the
7 siting process when the rules get put together is that
8 it's a very transparent and structured predictable
9 process.

10 One of the worst things that can occur for
11 a developer of projects that in return hurts the overall
12 stakeholders and ratepayers within the state is to have a
13 very open-ended and not a specific process for the
14 permitting of a project, but by having a very clearly
15 setup guidelines by which a developer needs to follow.

16 It makes it much easier to determine
17 whether a project makes sense or not before you even get
18 into public hearings and going through a permitting
19 process, so having a very clear set of guidelines really
20 helps.

21 Not only that, but, also, the timing. One
22 of the challenges that we face as a developer of wind
23 projects is how to stage the different pieces of the
24 development process, so when you have to order equipment,

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1 the electrical interconnect work that you have to do with
2 the local utility, how that all fits into when your
3 permit, when you file the permit, when you expect to get
4 it, if there's good visibility into what that timeline
5 will be, whether it's short or long, obviously, we think
6 a compressed timeline is very beneficial, because it
7 reduces the risk and the amount of spend that you have
8 during that period of time, which results in a cheaper
9 project at the end of the day, but knowing what that
10 timeline is is really the most important thing, because
11 then you can plan around that.

12 The other thing that we think is very
13 important is to be as specific as possible when you lay
14 out the statutes of what needs to be done. That does a
15 couple of things. It helps us understand, before we
16 spend millions of dollars on a project and run into a
17 problem down the road in the permitting process, that we
18 can do a better job of screening these projects and come
19 up with ones that fit with what the Siting Council wants
20 to see for a project within the state before we get into
21 hearings or into the actual approval process and our
22 experience in other states.

23 It also is going to help the Council,
24 because making it less of a subjective matter when you

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1 get into the actual hearings and the approval process, it
2 leads to less second guessing and really will help a lot,
3 so, more specifically, you can delineate what needs to be
4 done along the lines of the different environmental
5 studies it required, the type of public hearings, when
6 you have them, the timing of them, give enough notice for
7 people, and then have a very clear timeline for how you
8 go through.

9 Having permitted projects in a lot of
10 different states, I would say that some states do it very
11 well. Other states don't do it so well, and it makes it
12 more difficult and more costly.

13 At the end of the day, if it's more costly
14 for me, it's more costly for the ratepayer, who is going
15 to buy the output of the power.

16 And being able to look at other states
17 that do do it fairly well, I would suggest that New
18 Hampshire maybe isn't the best model to follow, but Maine
19 may be. Maine has two processes. One is a Land Use
20 Commission, but they also have the Department of
21 Environmental Protection that governs some of the wind
22 projects that have a very clear process that you go
23 through.

24 You know what the hurdles are that you

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1 have to jump over, and if you, before you get into the
2 project, you know whether you're going to have a problem
3 or not. And, from a timeline perspective, they're clear
4 about it's a six to nine-month approval process.

5 They're very clear about when the appeal,
6 what the appeal window is, where you take the appeals to,
7 you know, rather than recreating the wheel and being able
8 to look at some of these other states, and I'd emphasize
9 Maine is a good one.

10 Minnesota is another place, but it's a
11 little bit further away, but they have a very clear and
12 logical process, as well, but, you know, look at some of
13 these other programs and see how they've done it, and
14 really pick and choose the best from the other states and
15 try to build something here that works for everybody.

16 CHAIRMAN STEIN: Thank you very much.

17 MR. SWANK: Thank you.

18 CHAIRMAN STEIN: Do you have a question?

19 MR. LYNCH: Could you just give a little
20 bit more detail on how you go about screening a project,
21 as to what you look at that is favorable and what you
22 look at that may not be favorable that would turn you
23 away from the project?

24 MR. SWANK: Especially in Connecticut, one

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1 of the challenges is to find -- because you don't have a
2 lot of huge land parcels like you have in Maine or in
3 Texas and some of the other mid-western states we
4 typically develop wind, knowing very clearly what the
5 setback requirements will be, what the noise requirements
6 will be, and what the shadow flicker analysis requires
7 will be, what's acceptable and what's not, will allow us
8 to more finally target what areas really would be
9 possible to put a utility scale wind park into.

10 If you know that the setback is going to
11 be, you know, the setback is going to be 700 feet versus
12 2,000 feet, well, if it's 2,000, that's going to
13 eliminate a lot of areas where you may have otherwise
14 been able to put a wind park.

15 What we find in some states, New York is a
16 great example, we'd go into different towns, and each
17 time you went through a process, there would be a
18 different set of rules of how far you have to be from
19 roads, houses, property owners that aren't part of the
20 program, and you'd have to make a best guess, and
21 sometimes you get down the road, you'd acquire some land,
22 and you'd find out, well, gee, the setback that they're
23 going to require on this one doesn't work for this, so
24 that's one example.

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1 The other example is how many seasons of
2 bird and bat studies do you need to do before you can
3 submit the application? In some states, we'll do two
4 seasons, because that's what's been done before, and then
5 you'll get to the approval process and say, well, gee, we
6 want a third season, so now that may delay you by another
7 six months, because you have to wait until the fall to do
8 that study.

9 That's the type of thing that knowing what
10 -- how to stage all these different things that you're
11 doing in a timeline fits with the approval process and
12 what really you want us to show up at the Council with.

13 Here's our full set of documentation that
14 supports why we think this fits into the box that you've
15 created for us of what is an acceptable wind project.

16 I would say that the land and what the --
17 I mean there's other things. In Maine, you know, there's
18 a lot of eagle issues, so is it you need to be, you know,
19 no closer than a mile to existing eagle's nest, or is it
20 a three-mile test?

21 That's the type of thing that, you know,
22 if you know what that is, rather than getting into the,
23 you know, finding out once you're into the process that
24 it just makes it easier for everyone.

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1 MR. LYNCH: One last question. You're in
2 the business, so how do you, or how are states ranked, as
3 far as what is viable for a wind project? Is that
4 something you take into consideration?

5 MR. SWANK: Absolutely. I mean it's one
6 of the reasons why we haven't seen a lot of wind
7 development here in the State of Connecticut to date, is
8 because when -- and my company is one of those that
9 hasn't done a lot to date.

10 We do have one project here that we're
11 working on in Connecticut. It's a fairly early stage,
12 but there was a lot of other low-hanging fruit, so to
13 speak, in other states.

14 New Hampshire and Maine, places where you
15 have transmission capacity and it's windy and there's big
16 parcels of land, that makes it, if you're trying to
17 allocate where you're putting your projects, you're going
18 to go to some of these other areas first, just because
19 it's less of a, you know, it's an easier development
20 process.

21 Quite frankly, one of the reasons here in
22 the state that it was a little uncertain about what hoops
23 were you going to have to jump through from permitting,
24 whereas, in New Hampshire, it's very difficult, but at

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1 least you knew what that process was going to be like.
2 Same thing with Maine.

3 I think you didn't really -- not
4 necessarily the question you asked, but the other change
5 that's really occurred here in the last year or so that I
6 think is changing the attractiveness of developing wind
7 here in Connecticut is there's been a fairly major change
8 in technology that from the outside looking in doesn't
9 look good.

10 It's still a big wind turbine. There's
11 not some huge technological revolution, but what you have
12 is the wind company, the wind turbine companies are
13 making turbines that are one larger for the same -- that
14 have more output for the same, you know, for one turbine
15 base.

16 What that does is it allows you to get to
17 a critical mass, where you can do a utility scale project
18 on a smaller piece of land, whereas before you'd have to
19 have, you know, we would typically target 30 to 50
20 turbines to get to a utility scale project.

21 Now you can do more like 15 or 20, because
22 there's a larger output from the project. Two, they're
23 making, you know, finding a place where you can put -- I
24 don't think there's anywhere in Connecticut where you can

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1 put 50 turbines. There's not that kind of a land base
2 here.

3 But there are places where you can put a
4 dozen or 15 turbines within Connecticut. And, two, the
5 other thing that as the windy locations have gotten built
6 out by the various companies, there's now you're looking
7 into areas where there's a little bit less wind, and the
8 turbine manufacturers are making turbines that are more
9 suited to a moderate wind regime, rather than a high wind
10 regime.

11 You don't have to be up in -- you know,
12 the one project we did in New Hampshire was up near Mt.
13 Washington, which is one of the windiest places in the
14 world.

15 That same company that we bought turbines
16 from up there now have a turbine that is focused on lower
17 wind regimes, where you don't have to have 30 mile per
18 hour winds sustained to make a project profitable. You
19 can do it in a place where it's more like Connecticut,
20 where you have 15 mile per hour winds.

21 That's one of the reasons why there hasn't
22 been a lot here, but it's going to be more -- I think
23 there's more of a prospect now for building in
24 Connecticut than there really has been in the past.

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1 CHAIRMAN STEIN: I have a question. Have
2 you done any off-shore wind?

3 MR. SWANK: No. My company does
4 exclusively on-shore. Quite frankly, because we think
5 from an economics perspective, the on-shore just makes a
6 lot more sense.

7 If you look at the pricing that's required
8 to support off-shore wind development, if you look at
9 Cape Wind and the contract that they have with NSTAR,
10 their pricing is double what the pricing of an on-shore
11 wind project is.

12 Not to say that there isn't a place for
13 off-shore wind development in our overall U.S. energy
14 mix, but it's a lot longer lead process, a lot longer
15 lead time.

16 They've been working on Cape Wind for 10
17 years now, and, from our perspective, we really do on-
18 shore, and I think that it probably makes the most sense
19 here within the State of Connecticut, if you're going to
20 have in-state generation, it's going to come from on-
21 shore.

22 MR. TAIT: You mentioned going higher,
23 being more efficient, so you can -- any problem going
24 lower, the size that works out in Texas? Any of the New

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1 England states looking at smaller turbines, shorter
2 turbines that are more efficient, or is that not in your
3 technological future?

4 MR. SWANK: The technology has gotten to
5 the point where the turbines are fairly efficient from a
6 mechanical perspective, because just the physics of wind
7 speed. As you go lower, you just get a lot less wind.
8 Can you increase the efficiency by, you know, better
9 mechanics in these turbines, by dropping them down and
10 dropping them down and get the same amount out?

11 COURT REPORTER: One moment, please.
12 Sorry.

13 MR. SWANK: I think that's possible, but
14 for the foreseeable future, I don't see that as a viable
15 alternative to be able to get utility scale generation
16 out of smaller turbines.

17 I know there's one, probably the most
18 visible company that's working on technology like that,
19 is out of Boston, called Flo Design. It looks kind of
20 like a jet engine.

21 Instead of being three blades, it's a
22 circle, and they route the air differently, so it speeds
23 up the turbines. It's an interesting concept. They're
24 very small.

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1 MR. TAIT: Like what size?

2 MR. SWANK: Their largest one right now is
3 a tenth of a megawatt, which that's as opposed to, you
4 know, a lot of the turbines that you put up now. The
5 ones we're doing in Maine are three megawatts for each
6 turbine.

7 MR. TAIT: What height would they be?

8 MR. SWANK: It really depends. I mean,
9 you know, it's probably 150 to 250 feet, so they're not
10 short. I mean they're still tall.

11 What I would suggest -- people get very
12 focused on the height of these turbines. If you have a
13 chance, go out to a project site and look.

14 I was at one just last week, actually, in
15 Pennsylvania that had different height turbines within
16 one footprint, because of -- there's a number of reasons
17 why they've done that. And I was actually very surprised
18 by looking at -- you know, typically, on the utility
19 scale turbines, you'll have, you know, when they talk
20 about the height of a turbine, they measure it to the
21 nacelle, which is the hub height, the middle of the hub.

22 Typically, right now, for utility scale
23 turbines, you're looking at 80 to 100-meter hub heights,
24 and we had been looking at doing one in Maine, where we

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1 didn't really want to go to the 100-meter hub height,
2 because it was going to end up being the tallest turbine
3 ever built in the state of Maine. We were worried that
4 the extra height was going to be a problem.

5 Looking at the site in Pennsylvania
6 between an 80-meter turbine and a 100-meter turbine, you
7 couldn't tell which one was which.

8 When you get to the utility scale on the
9 turbines, whether you're 20 or 30 meters higher or lower
10 doesn't really make a big difference, even from a visual
11 perspective.

12 The only time that it gets -- it may mean
13 that from 10 miles away you can see half of the blade of
14 the rotor, as opposed to the whole rotor when you're ten
15 miles away from the project, but when you're really
16 looking at them from a mile or two away, or even on the
17 site especially, the height isn't as much of a concern as
18 how they're, kind of how they're laid out along the ridge
19 line in my experience.

20 MR. TAIT: So technology is going higher
21 and more efficient, rather than lower?

22 MR. SWANK: They're trying to go lower,
23 but the one I talked about in Flo Design, they're still -
24 - they're probably the most advanced in the market for

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1 that type of a turbine, and they're still three or four
2 years away, I think, from getting there.

3 MR. TAIT: And what was the name of that
4 company?

5 MR. SWANK: Flo Design, F-L-O.

6 MR. TAIT: And where are they located?

7 MR. SWANK: Waltham, Mass.

8 MR. TAIT: Thank you.

9 CHAIRMAN STEIN: There's also a museum,
10 and I can't remember which one, in Boston, which has four
11 different turbines, which are testing to see. My guess
12 is what we're going to see in the near future is more of
13 the small or medium size that are going to be not utility
14 and not -- which will be not in our jurisdiction, but I
15 think that's where, particularly in a built up state like
16 Connecticut, you're going to probably see more of that.

17 MR. SWANK: That would be great. That's
18 not what we do, but when I look from just an energy
19 planning perspective, I think that would be great.

20 The problem is they're not yet to a point
21 -- I mean they're so expensive. I mean the cost to do a
22 standalone single install that also isn't as efficient as
23 a big turbine is still double or triple the cost of going
24 utility scale, so if they can ever get the technology to

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1 a point where you can put one of these in each
2 neighborhood, or, you know, at a manufacturing site, I
3 think that would be great, but I'm a little skeptical
4 that that's going to happen soon enough to move the
5 needle much here.

6 CHAIRMAN STEIN: Thank you very much.

7 MR. SWANK: Thank you.

8 CHAIRMAN STEIN: Anybody else that signed
9 to speak? No? Is there anybody else, who would like to
10 speak at this time? We're going to adjourn until 6:30.
11 Thank you.

12 (Whereupon, the hearing adjourned at 3:00
13 p.m.)

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CERTIFICATE

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In witness whereof I have hereunto set my hand and do so attest to the above, this 17th day of October, 2011.



Paul Landman
President

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STATE OF CONNECTICUT

SITING COUNCIL

* * * * *

PUBLIC FORUM

* OCTOBER 13, 2011

* (6:30 p.m.)

WIND REGULATIONS

* * * * *

BEFORE: ROBIN STEIN, CHAIRMAN

BOARD MEMBERS: Colin Tait, Vice Chairman
Brian Golembiewski, DEP Designee
Larry Levesque, PURA Designee
Edward Wilensky
Daniel P. Lynch, Jr.
James J. Murphy, Jr.
Dr. Barbara Currier Bell

STAFF MEMBERS: Linda Roberts, Executive Director
Melanie Bachman, Staff Attorney

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1 . . .Continued verbatim proceedings of a
2 hearing before the State of Connecticut Siting Council in
3 the matter of a Public Forum - Wind Regulations, held at
4 the Connecticut Siting Council, Ten Franklin Square, New
5 Britain, Connecticut, on October 13, 2011 at 6:30 p.m.,
6 at which time the parties were represented as
7 hereinbefore set forth . . .

8
9
10
11 CHAIRMAN STEIN: Good evening, everybody.
12 This is a continuation of a public forum, which started
13 earlier today at 1:30. My name is Robin Stein. I'm the
14 Chairman of the Connecticut Siting Council.

15 Given the attendance, we do have sign-up
16 sheets, so I don't know if any of the four people may
17 want to make a statement. This is your chance. That's
18 why we're here. Does anybody want to make a statement?

19 I feel I almost have to say something, but
20 just so it's clear, since it is being -- it is relative
21 to the -- yeah, put that on, so I don't talk more than my
22 three minutes.

23 Under Public Act 11-245, which is on the
24 table, which requires the Council to prepare a regulation

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1 relative to the siting of wind facilities, we took the
2 gamble, I guess, to hold this public forum prior to
3 actually drafting the regulations, because we wanted to
4 get input from the public interested, individuals and
5 organizations, as to what suggestions they might make.

6 We did hear from a small group of, small
7 number of people earlier today, I guess about six maybe
8 in total, and this was the purpose of this, to give those
9 who couldn't come in the afternoon, and I guess we'll
10 have some discussion in hindsight whether we really
11 needed to schedule these two meetings, but, anyway.

12 So that's it, so, again, if anyone has
13 anything that you want to express, you know, feel free.
14 It's certainly a non-threatening atmosphere.

15 If you want to send us anything in
16 writing, or just follow this, there will be subsequent,
17 in all probability, there will be a hearing once after we
18 prepare our draft of the regulations, and the
19 legislature, which has to ultimately rule on them, will
20 also, I guess, be holding their public hearing.

21 Again, feel free to mail us, or send us an
22 e-mail, and anybody else from the Council want to add
23 anything?

24 MR. GOLEMBIEWSKI: Does this tell them how

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1 things are going to proceed?

2 CHAIRMAN STEIN: Yeah.

3 MR. GOLEMBIEWSKI: I just informed four
4 people.

5 CHAIRMAN STEIN: Right. That gives you an
6 outline of what the procedure is for adopting
7 regulations, and, with that, I'll declare this public
8 forum closed.

9 I'm at the yellow light stage now. You'll
10 get a chance to make a second statement if you want. All
11 right, so, I'll close the hearing, and drive home safely.

12 (Whereupon, the hearing adjourned at 6:35
13 p.m.)

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President

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