

CHAPTER SITE 300 CERTIFICATES OF SITE AND FACILITY

Part Site 301 REQUIREMENTS FOR APPLICATIONS FOR CERTIFICATES

Site 301.03 Contents of Application.

(h) Each application shall include the following:

(5) A description in detail of the applicant's financial, technical, and managerial capability to construct and operate the proposed facility;ⁱ

a. Financial information shall include:

1. A description of the applicant's experience financing other energy facilities;
2. A description of the corporate structure of the applicant;
3. A description of the source of funds for the construction and operation of the proposed facility;
4. An explanation of how the applicant's financing approach compares with financing approaches employed for other energy facilities; and
5. A statement of assets and liabilities of the applicant.

b. Technical information shall include:

1. A description of the applicant's qualifications and experience in constructing and operating energy facilities; and
2. A description of the experience and qualifications of any contractors or consultants engaged by the applicant to provide technical support for the construction and operation of the facility, if known at the time.

c. Managerial information shall include:

1. A description of the applicant's management structure for the construction and operation of the proposed facility, including an organizational chart;
2. A description of the qualifications of the applicant to manage the construction and operation of the proposed facility; and,

3. To the extent the applicant is relying on contractors or consultants for the construction and operation of the proposed facility, a description of their experience and qualifications, if known at the time.

(6) Documentation that the applicant has held at least one public information session in each county where the proposed facility is to be located at least 30 days prior to filing its application pursuant to RSA 162-H:10, I.

(7) Documentation that written notification of the proposed project, including appropriate copies of the application, has been given to the governing body of each community in which the facility is proposed to be located.

(i) Each application shall include information regarding the effects of the facility on, and plan for avoiding, minimizing or mitigating, to the extent practicable, any unreasonable adverse effects for the following:

(1) Aesthetics—Such information shall include a visual impact assessment of the proposed facility prepared consistent with generally accepted professional standardsⁱⁱ by a professional trained or having experience in visual assessment proceduresⁱⁱⁱ. The visual assessment shall contain the following components^{iv}:

- a. A description of the proposed facility and all ancillary components that would be visible from scenic resources^v;
- b. A description of how the applicant identified and evaluated the scenic quality of the landscape and visual effects^{vi};
- c. A narrative and graphic (maps and photographs)^{vii} description of the landscape surrounding the proposed facility to provide the context for evaluating any visual change;
- d. A computer-based visibility analysis to determine the area of potential effect^{viii}. For wind energy projects, the area of potential effect for evaluation of aesthetic impacts shall extend to a 10-mile radius^{ix} from each wind turbine in the proposed facility. For transmission lines longer than 1 mile, the extent of the area of potential effect may be up to 2 miles on either side of the right-of-way, depending on the terrain, the project design and the professional judgment of the visual impact assessor^x;
- e. Identification of all scenic resources within the area of potential effect and a description of those resources where the proposed facility may be visible^{xi};
- f. Photosimulations^{xii} from representative key observation points to illustrate the potential change in the landscape that may result from the proposed facility^{xiii}; and

- g. A description of the measures to avoid, minimize or mitigate visual impacts of the proposed facility, to the extent practicable^{xiv}.
- (2) Historic sites -- Such information shall:^{xv}
- a. Demonstrate that project review has been initiated for purposes of compliance with Section 106 of the National Historic Preservation Act, 16 U.S.C. 470;
 - b. Identify areas of potential archaeological sensitivity;
 - c. Identify potentially affected historic resources in and around the project area;
 - d. Identify generally available measures to avoid, minimize or mitigate, to the extent practicable, potential impacts on archaeological and historic resources; and
 - e. Describe the status of consultations with the New Hampshire Division of Historical Resources and, if applicable, with the lead federal agency.
- (3) Air quality--such information shall include the applications and permits filed pursuant to Site 301.03 (d) regarding issues of air quality.^{xvi}
- (4) Water quality--such information shall include the applications and permits filed pursuant to Site 301.03 (d) regarding issues of water quality.^{xvii}
- (5) Natural environment--such information shall:^{xviii}
- a. Describe how the applicant identified significant wildlife species, rare plants, and exemplary natural communities affected by the proposed facility;
 - b. Identify significant wildlife species, rare plants, and exemplary natural communities affected by the proposed facility;
 - c. Identify critical wildlife habitat and significant habitat resources;
 - d. Assess effects of the proposed facility on significant wildlife species, rare plants, and exemplary natural communities; and
 - e. Describe measures to avoid, minimize, or mitigate, to the extent practicable, impacts from the facility on wildlife species, rare plants, and exemplary natural communities.^{xix}
- (6) Public health and safety--such information shall:

- a. For wind energy facilities:
1. Include a project-related sound impact assessment prepared in accordance with professional standards by an expert in the field.^{xx} The assessment shall include a report of a preconstruction sound background study^{xxi} and a sound modeling study^{xxii} if an occupied permanent residence is located within 1 mile^{xxiii} of a wind turbine.
 - (i) The preconstruction sound background study shall:
 - i. Use measurement procedures that are consistent with the most recent versions of ANSI S12.18, and ANSI S12.9, Part 3^{xxiv} (with or without an observer present) guidelines;
 - ii. Include measurements taken using a sound meter that meets or exceeds the most current version of ANSI S1.4 specifications for a Type II sound meter^{xxv}; and
 - iii. Be conducted in locations that are representative of nearby sound receptors, e.g. occupied permanent residences, schools or businesses within the study area^{xxvi}.
 - (ii) The preconstruction sound background study report shall:
 - i. Include a map showing proposed wind turbine locations and all permanently occupied residences within the study area^{xxvii};
 - ii. Indicate topography, temperature, weather patterns, sources of ambient sound, and prevailing wind direction for the monitoring period; and
 - iii. Describe the test locations with GPS coordinates or some other level of detail that allows others to identify the test locations.
 - (iii) The sound modeling study shall:
 - i. Follow the most recent version of International Standard, ISO 9613-2^{xxviii}; and

- ii. Use wind turbine sound power levels determined according to the most recent version of IEC 61400 – Part 11^{xxxix}.
- (iv) The sound modeling study report shall:
- i. Include the results of the modeling described above as well as a map with sound contour lines showing dBA sound emitted from the proposed wind energy system at 5 dBA intervals^{xxx};
 - ii. Include locations out to the 35 dBA sound contour line or 1 mile from a wind turbine generator, whichever is closer to the nearest wind turbine^{xxxj}; and
 - iii. Show proposed wind turbine locations and all occupied permanent residences within the study area^{xxxii}.
2. Include a report evaluating the shadow flicker^{xxxiii} expected to be perceived at occupied permanent residences. Such report shall be based upon computer modeling programs and input data defining the most conservative case scenario;
3. State setbacks that indicate the distance between each wind turbine and the nearest nonparticipating landowner’s existing occupied building and property line, and between each wind turbine and the nearest public road and overhead utility line, and explain why these distances are adequate to protect the public from risks associated with the operation of the wind facility;
4. Include an assessment of the risk of ice throw^{xxxiv}, blade throw, or tower collapse on public safety, including any steps taken to avoid or minimize the occurrence of such events, if necessary;
5. Describe the project’s lightning protection system;
6. Include applications made to the FAA or the FAA’s determinations regarding whether any hazard to aviation is expected from each of the wind turbines and describe the FAA’s lighting, turbine color and other requirements for the project;
7. Include a decommissioning plan, providing a description of sufficient and secure funding, removal of structures, and site restoration^{xxxv}; and

8. Include a plan for fire protection prepared in consultation with a fire safety expert^{xxxvi}.

b. For transmission facilities, include:

1. An assessment of electric and magnetic fields.
2. An assessment of operational sound associated with the proposed facility, provided the proposed facility is introducing equipment that might reasonably be expected to increase sound by 10 dB(A) or more over ambient levels at the edge of the right-of-way, or edge of property boundary if the facility, or portion thereof, will be located on land owned, leased or otherwise controlled by the applicant or an affiliate of the applicant.

c. For all energy facilities include:

1. An assessment of operational sound, except as provided elsewhere herein;
2. A decommissioning plan, including a description of financial assurances;^{xxxvii}
3. A plan for fire safety;
4. A plan for emergency response; and
5. A description of any additional measures or plans to avoid, minimize or mitigate public health and safety issues.

(j) Each application shall include information regarding the effects of the proposed facility on the orderly development of the region, including the applicant's estimate of the effects of the construction and operation of the facility on:^{xxxviii}

(1) Land use—such information shall include:

- a. A description of the prevailing land uses in the host communities and communities abutting the facility; and
- b. A description of how the facility is consistent with such land uses.

(2) Economy—such information shall include an assessment of:

- a. The economic effect of the facility on the host communities and adjacent communities;

- b. The economic effect of the facility on in-state economic activity during construction and operation;
- c. The effect of the facility on State and local tax revenues;
- d. The effect of the facility on regional real estate values;
- e. The effect of the facility on tourism and recreation in the host communities and communities abutting the facility; and
- f. The effect of the facility on community services and infrastructure.

(3) Employment—such information shall include an assessment of:

- a. The number and types of full-time equivalent local jobs during the construction phase of the proposed facility, including direct construction employment and indirect employment induced by facility-related wages and expenditures: and
- b. The number and types of full-time equivalent jobs during the operation of the proposed facility, including direct employment by the applicant and indirect employment induced by facility-related wages and expenditures.

(k) Each application shall include information describing how the proposed facility will be consistent with the public interest.

(l) Each application shall include pre-filed testimony and exhibits supporting the application.

Site 301.04 Completeness Review and Acceptance of Applications for Energy Facilities.

(a) Upon the filing of an application for an energy facility, the committee shall:

(1) Conduct a preliminary review to ascertain if the application contains sufficient information to begin the review process under RSA 162-H,^{xxxix} and

(2) Forward to each of the other state agencies having jurisdiction, under state or federal law, to regulate any aspect of the construction or operation of a proposed facility, a copy of the application for the agency's review.^{xi}

(b) Each state agency shall have 30 days from the time the committee forwards the application to notify the committee in writing whether the application contains sufficient information for the agency to begin its review.^{xli}

(c) Within 60 days after the filing of an application, the committee shall determine whether the application is administratively complete.^{xlii}

(d) If the committee determines that an application is administratively incomplete, it shall notify the applicant in writing, and shall specify each of the areas where the application has been deemed incomplete. The applicant may choose to file a new and more complete application or cure the defects in the rejected application within 10 days of notification of rejection.^{xliii}

Site 301.05 Criteria Relative to Findings of Financial, Technical, and Managerial Capability.

(a) In determining whether an applicant has the financial capability to construct and operate a proposed facility, the committee shall consider:

- (1) The applicant's experience in securing funding to construct and operate energy facilities;
- (2) The experience and expertise of the applicant and its advisors, to the extent the Applicant is relying on such advisors;
- (3) The applicant's assets and liabilities; and
- (4) Financial commitments the applicant may have obtained or made in support of the proposed facility.

(b) In determining whether an applicant has the technical capability to construct and operate a proposed facility, the committee shall consider:

- (1) The applicant's experience in designing, building and operating energy facilities; and
- (2) The experience and expertise of any third parties with whom the applicant intends to contract, if known, for technical functions.

(c) In determining whether an applicant has the managerial capability to construct and operate a proposed facility, the committee shall consider:

- (1) The applicant's experience managing the construction and operation of other energy facilities; and
- (2) The experience and expertise of any third parties with whom the applicant intends to contract, if known, for managerial functions.

Site 301.06 Criteria Relative to Findings of Unreasonable Adverse Effects.

(a) In determining whether a proposed site and facility will have an unreasonable adverse effect on aesthetics, the committee shall consider:

- (1) The existing character of the area of potential effect in the host community and abutting communities^{xliiv};

- (2) The significance of affected scenic resources and their distance from the proposed facility^{xlv};
- (3) The extent, nature and duration of public uses of affected scenic resources;
- (4) The scope and scale of the change in the landscape visible from the scenic resource^{xlvi};
- (5) The evaluation of the overall visual effects as described in the visual assessment prepared by the applicant^{xlvii};
- (6) Whether the visibility of the proposed facility offends the sensibilities of a reasonable person^{xlviii}; and
- (7) The effectiveness of any proposed avoidance, minimization or mitigation measures^{xlix}.

(b) In determining whether a proposed site and facility will have an unreasonable adverse effect on historic sites, the committee shall:¹

- (1) Consider the nature and significance of the archaeological and historic resources identified by the applicant;
- (2) Consider the steps identified by the applicant to avoid, minimize or mitigate, to the extent practicable, unreasonable adverse effects on archaeological and historic resources;
- (3) Consider the iterative nature of the process under Section 106 of the National Historic Preservation Act;
- (4) Consider the status of the applicant's consultations with the New Hampshire Division of Historical Resources and, if applicable, the federal lead agency; and
- (5) Include in its decision conditions requiring:
 - a. Continuing consultation with the New Hampshire Division of Historical Resources and, if applicable, with the lead federal agency; and
 - b. Compliance with any agreement or memorandum of understanding with the New Hampshire Division of Historical Resources and, if applicable, the lead federal agency.

(c) In determining whether a proposed site and facility will have an unreasonable adverse effect on air quality, the committee shall consider the determinations of the New

Hampshire Department of Environmental Services with respect to applications or permits identified in Site 301.03 (d) and other relevant evidence submitted pursuant to Site 202.24.^{li}

(d) In determining whether a proposed site and facility will have an unreasonable adverse effect on water quality, the committee shall consider the determinations of the New Hampshire Department of Environmental Services with respect to applications and permits identified in Site 301.03 (d) and other relevant evidence submitted pursuant to Site 202.24.^{lii}

(e) In determining whether a proposed site and facility will have an unreasonable adverse effect on the natural environment, including wildlife species, rare plants, and exemplary natural communities, the committee shall consider:^{liii}

- (1) The significance of the affected wildlife species, rare plants, and exemplary natural communities;
- (2) The extent, nature, and duration of the effects on the wildlife species, rare plants, and exemplary natural communities;
- (3) The views of agencies charged with identifying and managing significant wildlife species and rare plants; and
- (4) Measures undertaken to avoid, minimize or mitigate, to the extent practicable, adverse effects on the wildlife species, rare plants, and exemplary natural communities.

(f) In determining whether a proposed site and facility has an unreasonable adverse effect on public health and safety, the committee shall:

- (1) For all energy facilities, consider the information submitted pursuant to Site 301.03 (h) (6) and other relevant evidence submitted pursuant to Site 202.24.
- (2) For wind energy facilities, apply the following standards:
 - a. Sound Standards: A-weighted equivalent sound levels produced by the applicant's facilities during operations shall not exceed 55 dbA during the day and 45 dbA during the night^{liv}, as measured at from the exterior wall of any existing permanently occupied building on a nonparticipating landowner's property, or at the property line if it is less than 300 feet from an existing occupied building. These levels shall not be exceeded for more than 3 minutes within a 60 minute period.^{lv}
 - b. Shadow Flicker Standard: Shadow flicker created by the applicant's facilities shall not occur more than 30 hours per year within an occupied permanent residence of a nonparticipating property owner^{lvi}.
 - c. Setback Standards: The setback distance between a wind turbine tower and a nonparticipating landowner's existing permanently occupied building shall be not less than three times the turbine tower height as

measured from the center of the wind turbine base to the nearest point of the foundation of the permanently occupied building. The setback distance between a wind turbine tower and a nonparticipating landowner's property line shall be no less than 1.1 times the turbine height (measured from the foundation to the blade tip) as measured from the center of the wind turbine base. The setback distance between a wind turbine tower and the nearest public road shall be no less than 1.5 times the turbine height as measured from center of the wind turbine base to the right-of-way line of the public road^{lvii}.

d. The applicant, however, may exceed the sound, shadow flicker and setback requirements with respect to any residence, occupied building or property if the owner thereof has agreed in writing to waive those requirements.

Site 301.07 Criteria Relative to a Finding of Undue Interference.

In determining whether a proposed site and facility will unduly interfere with the orderly development of the region, the committee shall consider:

(a) The extent to which the siting, construction, and operation of the proposed facility affects land use, employment, and the economy of the county or counties in which the facility is proposed to be located;^{lviii}

(b) The elements of and financial assurances for any decommissioning plan, to the extent one is required;^{lix} and

(c) The views of municipal and regional planning commissions and municipal governing bodies.^{lx}

Site 301.08 Criteria Relative to a Finding of Public Interest.

In determining whether a proposed site and facility will serve the public interest, the committee shall consider:

(a) Information submitted pursuant to Site 301.03 (k) and other relevant evidence submitted pursuant to Site 202.24;

(b) Whether the proposed facility is forbidden by law; and

(c) Whether the proposed facility is reasonably permitted under all the circumstances.^{lxi}

Site 301.09 Additional Criteria Relative to Wind Energy Systems.

In addition to the criteria in Site 301.05 through 301.08, in determining whether to grant a certificate of site and facility for a wind energy system, the committee shall consider:

- (a) Cumulative impacts to natural, scenic, recreational, and cultural resources^{lxii}; and
- (b) Best practical measures to avoid, minimize or mitigate adverse effects^{lxiii}.

Part Site 102 DEFINITIONS

(Aesthetics)

“Area of Potential Effect” means a geographic area from which a proposed facility may be seen, and may result in potential visual effects, subject to the limitations in Site 301.03(i)(1)(d).

“Key observation point” means a point from a scenic resource (1) that has the highest number of structures potentially visible; (2) a point where the highest amount of public use is anticipated from the resource; and (3) a point where access to the resource is most easily or likely achieved^{lxiv}.

“Landscape” means the characteristic, visible features of an area including landforms, water forms, vegetation, cultural features and all other objects and aspects of natural and human origin.

“Photosimulations” means computer-enhanced images generated using professionally accepted software that illustrate the visible effects anticipated from a proposed facility.

“Scenic quality” means a reasonable person’s perception of the intrinsic beauty of landform, water features, or vegetation in the landscape, as well as any visible human additions or alterations to the landscape.

“Scenic resource” means resources designated by state or national authorities for their scenic quality that are open to the public; state or nationally conserved properties that possess a scenic quality and are open to the public; tourism destinations recognized by the New Hampshire Division of Travel and Tourism as having a scenic quality and that are open to the public^{lxv}.

“Visibility analysis” means a spatial analysis conducted using computer software to determine the potential visibility of a proposed facility.

“Visual assessment” means the process for determining the degree of change in scenic quality resulting from a proposed facility.

(Natural Environment)

“Critical wildlife habitat” means, for a federally listed threatened or endangered species, (i) the designated and mapped specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, upon a determination by the Secretary of the United States Department of the Interior that such areas are essential for the conservation of the species.

“Exemplary natural community” means a rare natural community type and high quality example of a more common community type as determined by the New Hampshire Natural Heritage Bureau.

“Natural community” means a recurring assemblage of plants and animals found in particular physical environments as classified by the New Hampshire Natural Heritage Bureau.^{lxvi}

“Rare plant” means any species included on the most recent version of the “Rare Plant List for New Hampshire” maintained by the New Hampshire Natural Heritage Bureau.^{lxvii}

“Significant habitat resource” means habitat used by a wildlife species for critical life cycle functions.^{lxviii}

“Significant wildlife species” means (1) any species listed as threatened or endangered, or which is a candidate for such listing, by the U.S. Fish and Wildlife Service; or (2) any species listed as threatened, endangered or special concern by the New Hampshire Department of Fish and Game.^{lxix}

“Wildlife” means “wildlife” as defined under NH RSA 207:1, XXXV, “all species of mammals, birds, fish, mollusks, crustaceans, amphibians, invertebrates, reptiles or their progeny or eggs which, whether raised in captivity or not, are normally found in a wild state.”^{lxx}

(Wind)

“Best practical measures” means economically feasible actions that are consistent with available technology and relevant industry standards which have been demonstrated to effectively minimize project impacts^{lxxi}.

“Cumulative impacts” means the totality of effects resulting from the proposed project and existing towers or energy projects, or both^{lxxii}.

ⁱ The following requirements synthesize information submitted in previous applications and reflect a review of prior decisions of the Site Evaluation Committee.

ⁱⁱ There are many generally accepted professional standards for performing visual assessments. At the federal level, standards and visual assessment procedures have been developed by many agencies, including the Bureau of Land Management, the Federal Highway Administration, US Army Corps of Engineers, and the USDA Forest Service. Many states have also adopted visual assessment standards, often by the transportation or environmental management agency. See *Evaluation of Methodologies for Visual Impact Assessments*, National Cooperative Highway Research Program, Report 741. Washington, D.C. (2013).

ⁱⁱⁱ This person is usually a landscape architect who has special training in visual impact assessment. Maine has a similar requirement in NRPA Chapter 315.7: *Assessing and Mitigating Impacts to Existing Scenic and Aesthetic Uses*.

^{iv} These are the steps that are typically found in visual assessments at both the state and federal level. See *Evaluation of Methodologies for Visual Impact Assessments*, Ch. 2.2 *Issues of Methodologies*, and *Guide to Evaluating Visual Impact Assessment for Renewable Energy Projects*. Natural Resource Report NPS/ARD/NRR – 2014/836.

^v This information is a common component of visual assessments. For example, in the application before the New Hampshire Site Evaluation Committee by Newington Energy, LLC to construct an electric production facility, the applicant submitted a field program designed to evaluate the visibility of facility structures. The applicant used a computer graphic software program, which superimposed viewshed photographs from different locations. These photographs showed the proposed locations and aesthetic impact of certain parts of the facility, including: the main turbine building, the exhaust gas stack, the cooling tower, a water storage tank and two fuel storage tanks. See *Decision, Newington Energy, L.L.C., N.H. Site Eval. Comm. no. 98-01, dated May 25, 1999 at 16*.

^{vi} In the Granite Reliable Visual Impact Assessment (VIA), the applicant used a method for systematically assessing scenic quality. Scenic quality was determined based on consideration of a variety of factors including; visual diversity, focal point, intactness, number of users, and any documentation of scenic or recreational importance. See *Granite Reliable Power Windpark Visual Impact Assessment, Granite Reliable LLC, N.H. Site Eval. Comm. dated January 4, 2008 at 37-38*.

In the Groton Wind proceedings, registered landscape architects completed a visual contrast rating form based on the methodology developed by the U.S. Department of the Interior Bureau of Land Management. The form provides for the description of existing scenic quality or value, viewer sensitivity and variable effects such as viewing angles, in addition to the actual rating of contrast between the proposed Project and the existing view. The procedure uses a numerical contrast rating system to compare representative views with and without the Project to quantify the visual impact. See *Application of Groton Wind, LLC for a Certificate of Site and Facility, Groton Wind LLC, N.H. Site Eval. Comm. dated March 2010 at 60*. See also *Groton Wind Project Visual Impact Assessment, Prepared by Environmental Design and Research, dated December 2009 at 45*.

^{vii} In the application of Laidlaw Berlin BioPower, LLC, the applicant provided a description of the proposed site and its surrounding landscape. The applicant discussed the zoning classification of the proposed project site, its proximity to other manufacturing facilities and businesses, and other site characteristics, including whether the site was close to demolition activities and unmaintained vegetation. See *Decision Granting Certificate of Site and Facility With Conditions, Laidlaw Berlin BioPower, LLC, N.H. Site Eval. Comm., no. 2009-02, dated Nov. 8, 2010, at 68–69*. In the Granite Reliable Power LLC proceedings, the committee relied on information provided by the applicant and concluded that “the Project will not detract from the scenic resources in the area because it is remotely sited, views of the area are blocked by other peaks, it is viewable only from limited locations and from a great distance, and the forests are actively logged.” See *Decision Granting Certification of Site and Facility With Conditions, Granite Reliable Power LLC, N.H. Site Eval. Comm. no. 2008-04, dated July 15, 2009 at 43*.

^{viii} In the Granite Reliable proceedings, the application included a visual study completed by Jean Vissering Landscape Architecture and Thomas Kokx Associates. The study involved both field inventory work as well as documentation of areas of project visibility with photographs and maps using a global position system unit. The visual assessment examined factors such as relative scenic quality, uniqueness of the scenic resources, viewer sensitivity levels, documentation of scenic resources, proximity of views, duration of views and the relative prominence of the Project within views. The visual study was used to determine the areas of potential visual effect. See *Application of Granite Reliable Power, LLC for Certificate of Site and Facility, Granite Reliable, LLC, N.H. Site Eval. Comm. dated July 2008, at 65*.

^{ix} The VIA for the Groton Wind project studied the visibility of the project “within a 10-mile radius of the proposed turbines.” The Committee granted the certificate and found that there would not be an unreasonable aesthetic

impact on the region, partially relying on this representation. See Decision Granting Certification of Site and Facility With Conditions, Groton Wind, LLC, N.H. Site Eval. Comm. no. 2010-01, dated May 6, 2011, at 47. Also, in the Antrim proceedings, the visual impact expert for the applicant provided the Committee with data regarding visual receptor locations within both a 5 mile radius and a 10 mile radius of the proposed Project. See Decision and Order Denying Application for Certificate of Site and Facility, Antrim Wind Energy, LLC, N.H. Site Eval. Comm. no. 2012-01, dated April 25, 2013 at 46.

^x The area of potential effect (APE) will vary with the type of project being evaluated, the terrain in the vicinity of the project, the height and mass of the object(s), and the significant of the surrounding landscape. For wind turbines, Maine uses an APE of 8 miles; Vermont uses 10 miles, and West Virginia uses 20 miles. See generally, Vissering, Jean, State Clean Energy Program Guide: A Visual Impact Assessment Process for Wind Energy Projects (March 2011). For transmission lines, the APE for evaluating the structures is typically 1 to 2 miles in the northeast, where vegetation, topography, and buildings limit viewing distances. Maine requires a one-mile APE, with the expectation that site conditions may warrant additional distance in the evaluation.

^{xi} In the Groton Wind Project, the VIA prepared by Environmental Design Research identified specific scenic resources within the area of visual study. These resources included; fifteen sites or districts which are listed on the National register of Historic Places, three state parks, nine state forests, five state wildlife management areas, the White Mountain National Forest, two designated scenic byways, several major water bodies, and several designated trails. Photo documentation of potential Project visibility was obtained from 180 representative viewpoints within the study area to verify potential Project visibility in the field. Out of the 180 photos, 11 viewpoints were selected which best represented the area and were most likely to have views of the proposed Project. The viewpoints were used to develop visual simulations to evaluate aesthetic impact in the visual study area. See Application of Groton Wind, LLC for a Certificate of Site and Facility, Groton Wind LLC, N.H. Site Eval. Comm. dated March 2010 at 59-60.

^{xii} Photosimulations are computer-altered photographs that represent future conditions as proposed by the applicant. They are also referred to as simulations, computer-generated images, and visualizations. There are many methods used to produce accurate images; all require an understanding of computer software and the ability to merge photographs with computer-generated imagery. See Guide to Evaluating Visual Impact Assessment for Renewable Energy Projects, Chapter 5: Interpreting and Evaluating Visual Impact Simulations.

^{xiii} The SEC has previously relied upon photosimulations to assess aesthetic impacts. For example, in Granite Reliable, LLC, the applicant submitted “numerous photosimulations depicting what the Project would look like from various locations.” Relying on the photo simulations and expert testimony, the Committee concluded that there would not be an unreasonable adverse impact to the aesthetics of the region. See Decision Granting Certification of Site and Facility With Conditions, Granite Reliable Power LLC, N.H. Site Eval. Comm. no. 2008-04, dated July 15, 2009 at 42. In the New England Power Company proceedings, the applicant provided the Committee with “three photographic simulations of representative viewpoints of the Facility.” Both Counsel for the Public and the Committee, relied on these simulations and concluded that there would be no unreasonable adverse aesthetic impact. See Decision Granting Certification of Site and Facility With Conditions, New England Power Company, N.H. Site Eval. Comm. no. 2014-02, dated August 29, 2014 at 18-19. In Antrim, the visual impact expert for both the applicant and public counsel provided the Committee with photosimulations. The Committee concluded that the photosimulations “well illustrated” the visual impact of the Facility on sensitive areas such as Willard Pond and the Wildlife Sanctuary. See Decision and Order Denying Application for Certificate of Site and Facility, Antrim Wind Energy, LLC, N.H. Site Eval. Comm. no. 2012-01, dated April 25, 2013 at 46, 52. The applicant in Laidlaw Berlin BioPower, LLC provided the Committee with photographs depicting a visual simulation of a proposed structure inserted into an existing viewscape. The simulation included all major parts of the Facility. Relying on this representation, as well as other provided data, the Committee made a finding that there would be no unreasonable adverse effect to aesthetics. See Decision Granting Certificate of Site and Facility With Conditions, Laidlaw Berlin BioPower, LLC, N.H. Site Eval. Comm., no. 2009-02, dated Nov. 8, 2010, at 69.

^{xiv} Mitigation may reduce or eliminate the visibility of the project or alter the project’s effect on the scenic or aesthetic resource in some way. For a discussion on various types of mitigation, see The DEC Policy System: Assessing and Mitigating Visual Impacts, V.D., New York State Department of Environmental Conservation. 2000, and Maine NRPA Chapter 315: Assessing and Mitigating Impacts to Existing Scenic and Aesthetic Uses: 8: Mitigation. In Groton Wind, the Applicant suggested that visual impacts of the project would be mitigated because the project was located in a “remote forested area, the turbines will be white and have a uniform design, speed, height, and rotator diameter.” Additionally, the Applicant asserted that the towers would not include exterior ladders or catwalks, new road construction would be minimized, forest clearing would be minimized, and placement

of advertising would be prohibited. Groton Wind, LLC, N.H. Site Eval. Comm. no. 2010-01, dated May 6, 2011, at 48. See also Granite Reliable Power Windpark Visual Impact Assessment, Granite Reliable LLC, N.H. Site Eval. Comm. dated January 4, 2008 at 45–46 (discussing mitigation measures for turbine selection, road design, line siting, substation screening, storage areas, and recreational access).

^{xv} The following requirements synthesize information submitted in previous applications, reflect a review of prior decisions of the Site Evaluation Committee, and are based on the Division of Historical Resources’ website, specifically its Introduction to Project Review and Compliance.

^{xvi} On air and water quality issues, the SEC routinely relies on DES and federal agency permitting decisions to make its findings. See, e.g., *Groton Wind, LLC*, Decision Granting Certificate, pp. 58-60 (May 6, 2011).

^{xvii} *Id.*

^{xviii} Compiled in part from Areas of Agreement re Application Requirements listed in Wildlife, Rare Plants, and Natural Communities Working Group Report, issued by Office of Energy and Planning, as part of 2013 Senate Bill 99 Stakeholder Process (August 12, 2014).

^{xix} Follows approach to wetlands impacts required by DES rule, Env-Wt 302.03.

^{xx} RSA 162-H:10-a, II (4). (HB 1602 – NH Laws of 2014, Ch. 310:5)

^{xxi} Hessler, David M., “Best Practices Guidelines for Assessing Sound Emissions from Proposed Wind Farms and Measuring the Performance of Completed Projects,” Prepared for the Minnesota Public Utilities Commission under the auspices of the National Association of Regulatory Utility Commissioners (“NARUC”) (October 2011), Section 4.2, p.22.

^{xxii} *Id.*, Section 4.1, p. 13.

^{xxiii} *Id.*, Section 4.3, p. 22 (“objective of a pre-construction survey is to establish what levels of environmental sound are currently being experienced at ‘typical residences’ within the ‘general project area’”); (sound model should consider “houses...of the site”).

^{xxiv} *Id.*, Section 4.3.3, p. 25.

^{xxv} *Id.*, Section 4.3.3, p. 26.

^{xxvi} *Id.*, Section 4.3.1, p. 23.

^{xxvii} *Id.*, Section 4.1.1, p. 17.

^{xxviii} *Id.*, Section 4.1.1, p. 13.

^{xxix} *Id.*, Section 4.1.3, p. 17.

^{xxx} *Id.*, Section 4.1.4, p. 18.

^{xxxi} *Id.*

^{xxxii} *Id.*, Section 4.1.3, p. 17.

^{xxxiii} RSA 162-H:10-a, II (3). (HB 1602 – NH Laws of 2014, Ch. 310:5).

^{xxxiv} *Id.*

^{xxxv} RSA 162-H:10-a, II (7)

^{xxxvi} RSA 162-H:10-a, II (6)

^{xxxvii} RSA 162-H:7, V (g)

^{xxxviii} The following requirements synthesize information submitted in previous applications and reflect a review of prior decisions of the Site Evaluation Committee.

^{xxxix} RSA 162-H:7, III

^{xl} RSA 162-H:7, IV

^{xli} 30-day timeframe selected for agency notification to give SEC time necessary to meet 60-day timeframe for determining completeness.

^{xlii} RSA 162-H:7, VI

^{xliii} *Id.*

^{xliv} The Granite Reliable VIA described the regional landscape character and paid particular attention to the appeal of the Great North Woods. See Granite Reliable Power Windpark Visual Impact Assessment, Granite Reliable LLC, N.H. Site Eval. Comm. dated January 4, 2008 at 13–14.

^{xliv} In the VIA for Granite Reliable, the applicant determined the visual impact and sensitivity of chosen viewpoints by considering certain factors, including: the expected experience level, such as a natural landscape without motorized vehicles, the distance of the viewshed from the project, the duration of the view, the scenic quality of the view, and the express public value in public documents. The applicant also provided viewpoint maps in the VIA, which displayed the distance to the nearest visible turbine. See Granite Reliable Power Windpark Visual Impact Assessment, Granite Reliable LLC, N.H. Site Eval. Comm. dated January 4, 2008 at 8, 14.

^{xlvi} Subsection (a) (1)–(5) are similar to the Maine Wind Energy Act, Public Law Ch. 661. § 3452 Determination of effect on scenic character and related existing uses.

^{xlvii} In the VIA submitted by Granite Reliable, the applicant provided analysis evaluating the degree of visual impact and degradation of scenic resources. The VIA considered whether the project would “dominate views to such an extent that they significantly degrade the natural and scenic characteristics of a particular location or the region as a whole.” After analyzing each scenic resource in the VIA, the applicant concluded that “the project would not be a dominant element within these views, nor would it alter the overall enjoyment of scenery from viewing areas.” See Granite Reliable Power Windpark Visual Impact Assessment, Granite Reliable LLC, N.H. Site Eval. Comm. dated January 4, 2008 at 41. In the Visual Impact Assessment filed in the Groton Wind proceedings, an EDR landscape architect evaluated the simulations done during the visual assessment and indicated that the overall impact on scenic quality within the visual study area is likely to be moderate. See Groton Wind Project Visual Impact Assessment, Prepared by Environmental Design and Research, dated December 2009 at 101. The Committee and Counsel for the Public relied on the conclusions drawn in the Visual Impact Report (VIR) provided by the applicant in the New England Power Company decision granting the certification. See Decision Granting Certification of Site and Facility With Conditions, New England Power Company, N.H. Site Eval. Comm. no. 2014-02, dated August 29, 2014 at 18-19.

^{xlviii} “Although at times offering appreciable contrast with the landscape, the proposed Project will not necessarily be perceived by viewers as having an adverse visual impact.” See Groton Wind Project Visual Impact Assessment, Prepared by Environmental Design and Research, dated December 2009 at 101.

^{xlix} Subsection (a)(6) and (a)(7) are derived from the second part of the two-step Quechee Test used in Vermont’s Act 250 process to determine if a project would have an undue adverse impact on aesthetics. See Adverse Aesthetic Impacts: Act 250’s Criterion 8 upheld in Quechee Lakes, Open Space Land Use Law and Policy in Vermont (May 2011). In the Laidlaw Berlin proceedings, the applicant agreed to mitigate visual impacts by painting, putting siding on existing structures, and landscaping along the border of the site. See Decision Granting Certificate of Site and Facility With Conditions, Laidlaw Berlin BioPower, LLC, N.H. Site Eval. Comm., no. 2009-02, dated Nov. 8, 2010, at 68. See also Decision Granting Certification of Site and Facility With Conditions, Granite Reliable Power LLC, N.H. Site Eval. Comm. no. 2008-04, dated July 15, 2009 at 43-44 (finding that the proposed project would not have unreasonable adverse effects on aesthetics in the area and not requiring the applicant to construct a visitor’s center and information kiosks as part of a mitigation strategy).

^l To make a finding of no unreasonable adverse effect, the SEC regularly relies on evidence provided by the applicant, the Section 106 consultative process administered by DHR, and conditions requiring the applicant to continue consultations with DHR and comply with all agreements and memos of understanding. See, e.g., *Groton Wind, LLC*, Decision Granting Certificate, pp. 55-56 and Order and Certificate of Site and Facility, p. 4 (May 6 2011).

^{li} On air and water quality issues, the SCE routinely relies on DES and federal agency permitting decisions to make its findings. See, e.g., *Groton Wind, LLC*, Decision Granting Site Certificate, pp. 58-60 (May 6, 2011).

^{lii} *Id.*

^{liii} Compiled in part from Areas of Agreement re Siting Criteria listed in Wildlife, Rare Plants, and Natural Communities Working Group Report, issued by Office of Energy and Planning, as part of 2013 Senate Bill 99 Stakeholder Process (August 12, 2014).

^{liv} See CT Dept. of Environmental Protection, 2013 Noise Control Regulations, Sect. 22a-69-3.5 (Residential Zone Noise Standards).

^{lv} See Agreement between Town of Groton and Groton Wind (Section 11), approved by NH SEC as a condition of Groton Wind’s Certificate of Site and Facility.

^{lvi} See CT Siting Council Regulations, Sec. 16-50j-95 (c)(1); see also NARUC “Wind Energy & Wind Park Siting and Zoning Best Practices and Guidance for States” (January 2012), p. 31.

^{lvii} NARUC “Wind Energy & Wind Park Siting and Zoning Best Practices and Guidance for States” (January 2012), p. 36 (wind siting guidelines/mandates from a few states converge on 1 to 1.5 times turbine height from property lines of non-participating landowners, roads, etc.

^{lviii} Site 301.03 (j)

^{lix} RSA 162-H:7, V (g)

^{lx} RSA 162-H:16, IV (b)

^{lxi} *Grafton County Electric Power & Light v. State*, 77 NH 539 (May 4, 1915)

^{lxii} RSA 162-H:10-a, II (2)

^{lxiii} RSA 162-H:10-a (8)

^{lxiv} For a further discussion on KOP's, see Guide to Evaluating Visual Impact Assessment for Renewable Energy Projects, 3.7 Identifying KOP's.

^{lxv} Maine's Ch. 315 defines Scenic Resources as: Public natural resources or public lands visited by the general public, in part for the use, observation, enjoyment, and appreciation of natural or cultural visual qualities. The attributes, characteristics, and features of the landscape of a scenic resource provide varying responses from, and varying degrees of benefits to, humans.

^{lxvi} See Wildlife, Rare Plants, and Natural Communities Working Group Report, p. 2, issued by Office of Energy and Planning, as part of 2013 Senate Bill 99 Stakeholder Process (August 12, 2014).

^{lxvii} *Id.*

^{lxviii} *Id.*

^{lxix} *Id.*

^{lxx} *Id.*

^{lxxi} See Maine Revised Statutes Title 35-A §3459 (In determining best practical mitigation options, the primary siting authority shall consider "existing state of technology", "effectiveness of available technologies... for reducing impacts", and "economic feasibility of the type of mitigation under consideration.")

^{lxxii} RSA 162-H:10-a, II (2).