

2011

Federal and State Laws Regarding the Implementation of Land Based Wind Power Development in Rhode Island

Brandon Biggs

Sea Grant Law Fellow, Roger Williams University School of Law

Follow this and additional works at: https://docs.rwu.edu/law_ma_seagrant



Part of the [Natural Resources Law Commons](#)

Recommended Citation

Biggs, Brandon, "Federal and State Laws Regarding the Implementation of Land Based Wind Power Development in Rhode Island" (2011). *Sea Grant Law Fellow Publications*. 25.

https://docs.rwu.edu/law_ma_seagrant/25

This Document is brought to you for free and open access by the Marine Affairs Institute at DOCS@RWU. It has been accepted for inclusion in Sea Grant Law Fellow Publications by an authorized administrator of DOCS@RWU. For more information, please contact mwu@rwu.edu.



FEDERAL AND STATE LAWS REGARDING THE IMPLEMENTATION OF LAND
BASED WIND POWER DEVELOPMENT IN RHODE ISLAND

Brandon Biggs



THE
UNIVERSITY
OF RHODE ISLAND

1. ESTABLISHING THE STANDARDS FOR RENEWABLE ENERGY AND DEVELOPMENT
 - a. RHODE ISLAND RENEWABLE ENERGY STANDARD
 - b. LONG TERM CONTRACTING STANDARD
 - c. DISTRIBUTED GENERATION STANDARD CONTRACTS ACT
 - d. NET METERING
 - e. DISTRIBUTED GENERATION INTERCONNECTION
2. INCENTIVES OFFERED TO RENEWABLE ENERGY GENERATORS
 - a. STATE BASED INCENTIVES
 - i. RENEWABLE ENERGY DEVELOPMENT FUND
 - ii. MUNICIPAL RENEWABLE ENERGY INVESTMENT FUND
 - iii. RESIDENTIAL RENEWABLE ENERGY SYSTEM TAX CREDIT
 - b. FEDERAL INCENTIVES
 - i. FEDERAL TAX CREDITS FOR WIND GENERATORS
 - ii. NEW CLEAN RENEWABLE ENERGY BONDS
 - iii. NEW MARKET TAX CREDITS
 - iv. PUBLIC UTILITIES REGULATORY POLICY ACT OF 1978
3. CONCERNS WITH THE IMPLEMENTATION OF WIND ENERGY
 - a. ENVIRONMENTAL CONCERNS
 - i. ANIMAL WELFARE INSTITUTE, ET AL. V. BEECH RIDGE ENERGY LLC, ET AL.
 - ii. DEPARTMENT OF FISH AND WILDLIFE, VOLUNTARY LAND-BASED WIND ENERGY GUIDELINES
 - b. ZONING AND NUISANCE ISSUES
 - i. FEDERAL AVIATION ADMINISTRATION ZONING RESTRICTIONS
 - ii. NUISANCE ACTIONS AGAINST A WIND TURBINE

INTRODUCTION

In order to encourage residents, municipalities, businesses, and commercial developers to install new renewable energy resources in the state, Rhode Island is creating a standard requiring more energy to be purchased from renewable sources.¹ The increased demand allows wind turbine owners, of every scale, the opportunity to earn a profit by selling excess electricity.² Prospective investors are now able to determine the cost of connecting a project to the distribution grid, and enter into contracts with electricity distribution companies, before making significant investments in a project.³ Loans, grants, and tax incentives are available on both the federal and state level, and may be combined to maximize the availability of investment capital and increase investor benefits.⁴ With the increased development of wind energy in Rhode Island, developers must consider the impact turbines can have on the environment, government organizations, and fellow citizens. This will help them avoid possible fines, incarceration, and terminated use of the turbine. These concerns can be mitigated through early coordination with government agencies, and adherence to siting regulations and guidelines.⁵

1. ESTABLISHING THE STANDARDS FOR RENEWABLE ENERGY AND DEVELOPMENT

To apprise Rhode Island energy users the of benefits of developing new renewable energy resources, such as stable long-term energy prices, enhanced ecological quality, and the creation of local jobs in the renewable energy sector, the state has adopted a standard to ensure that nearly one fifth of all retail power sold in the state will come from renewable energy,

¹ R.I Gen. Laws § 39-26-3 (2004).

² R.I Gen. Laws § 39-26.2-2 (2011); R.I Gen. Laws § 39-26.4 (2011); R.I Gen. Laws § 39-26.1-1 (2009).

³ R.I Gen. Laws § 39-26.3-3.

⁴ R.I Gen. Laws § 39-2-1.2(b)-(c) (2003).

⁵ Animal Welfare Institute v. Beech Ridge Energy LLC, 674 F. Supp. 2d 540 (2009); R.I Gen. Laws § 10-1-1(2009); The term “developers” in this paper refers to anyone installing or contracting for the instillation of a wind turbine of any size, including individuals, businesses, municipalities, and commercial developer.

produced in Rhode Island, by 2018.⁶ To aid in this pursuit, investors can determine the feasibility of potential projects, and are given multiple choices in selling any or all of the energy produced by new facilities. The Renewable Energy Standard, combined with streamlined methods for contracting and selling energy provides strong production incentives for those considering wind energy development.⁷

a. RHODE ISLAND RENEWABLE ENERGY STANDARD

The Renewable Energy Standard took effect in 2007 and required all electricity distribution companies⁸ to purchase at least 3% of the electricity they sold to Rhode Island customers in that year from eligible renewable energy resources.⁹ The percentage of retail electricity that must come from renewable energy sources increases each year.¹⁰ In 2008, 2009, and 2010, the percentage increased by .5% each year; in 2011 through 2014 it will increase by 1% per year; and in 2015-2019 a 1.5%, per year, increase is required.¹¹ By 2019, at least 16% of the power sold for retail consumption must come from renewable energy resources.¹² This level will be maintained unless the Rhode Island Public Utilities Commission (Commission) determines that the standard is no longer necessary to encourage investments in renewable energy.¹³ Because the Standard seeks to encourage new renewable energy development, no

⁶ R.I Gen. Laws § 39-26-3.

⁷ *Id.*

⁸ The statute obligates “a person or entity who sells electricity to end-use customers in Rhode Island, including but not limited to: nonregulated power producers and electric utility distribution companies who supply standard offer service, last resort service, or any successor service to end customers; including Narragansett Electric, but not to include Block Island Power Company, or Pascoag Utility District.” *Id.* at § 39-26-2.

⁹ *Id.* at § 39-26-4(a).

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.* at § 39-26-4(b).

¹³ *Id.*

more than 2% of retail electricity sales may come from renewable energy resources which went commercial prior to December 31, 1997.¹⁴

All electricity distribution companies are required to show compliance with the Standard by acquiring New England Power Pool (NEPOOL) geographic information system (GIS)¹⁵ certificates, which verify that the renewable energy being created is actually delivered into the NEPOOL area.¹⁶ The certificates, also referred to as credits, are created as energy is produced and are automatically the property of the turbine owner, unless already contracted for.¹⁷ Thus, certificates are marketable commodities that can be sold to electricity distribution companies, for compliance with the Standard.¹⁸

While the Standard is meant to encourage the purchase of certificates, and the growth of renewable energy resources, electricity distribution companies may make Alternative Compliance Payments, rather than purchasing any or all of the necessary certificates in a year.¹⁹ The Alternative Compliance Payment rate, the price a distribution company must pay for alternative payments, is published by the Commission before January 31, of each year.²⁰ Anyone considering the construction of a wind turbine, for the purpose of selling energy to a distribution company, should consult this rate.²¹ Unless a new turbine is able to produce energy at a lower, per credit, rate than the alternative compliance rate, distribution companies will opt

¹⁴ *Id.* at § 39-26-2(18). In determining the minimum percentage of renewable energy production for a given year, the calculation for each energy product may not include customers who voluntarily purchase renewable energy. *Id.* at § 39-26-4(c).

¹⁵ NEPOOL GIS is the information system in place to record the generation of electricity within the NEPOOL area.

¹⁶ *Id.* at § 39-26-2(14); The New England Power Pool encompasses the area of Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York. <http://www.nepool.com/portal/jsp/lmpmap/Index.jsp>

¹⁷ STATE OF R.I. AND PROVIDENCE PLANTATIONS PUBLIC UTILITIES COMMISSION, RULES AND REGULATIONS GOVERNING THE IMPLEMENTATION OF THE RENEWABLE ENERGY STANDARD, 16 (2008).

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.* at 17.

²¹ *Id.*

for alternative payments.²² Electricity distribution companies also have the option of purchasing, up to thirty percent, more renewable energy certificates than they are required to in a year.²³ The distribution company must use these “banked” credits in the following year, and any banked credits are noted in the annual compliance filing, published in the final quarter of each year, which details the renewable energy purchased by each distribution company.²⁴ If a distribution company were to bank credits in a year, the demand for new credits in the following year would be diminished. Thus, this report may be another valuable asset to potential investors by providing an indication of the demand for credits in the coming year.²⁵

Each year electricity distribution companies must also submit an annual procurement procedure.²⁶ This procedure is used to demonstrate that the company has determined its need, and established a plan for meeting the year’s requirements.²⁷ The Renewable Energy Standard also creates a *right-to-know* standard, requiring disclosures to all customers of each electrical energy project offered.²⁸ These disclosures must include what sources of energy were used to generate electricity for each electrical energy product, expressed as a percentage of the total amount of energy, and emissions created as a result of generating the electricity.²⁹

In order to be certified as a new renewable energy resource, an applicant must complete a standard Renewable Energy Resources Eligibility Form,³⁰ and the Commission will issue a decision within ninety (90) days of application.³¹ Applicants that have not yet constructed a

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.* at 15-16.

²⁶ *Id.* at 19.

²⁷ *Id.*

²⁸ R.I Gen. Laws §39-26-9(a).

²⁹ *Id.* at § 39-26-9(b).

³⁰ STATE OF R.I. AND PROVIDENCE PLANTATIONS PUBLIC UTILITIES COMMISSION, RULES AND REGULATIONS GOVERNING THE IMPLEMENTATION OF THE RENEWABLE ENERGY STANDARD, 19.

³¹ *Id.*

wind turbine may also seek a Declaratory Judgment³² from the Commission, in order to determine if a prospective facility would meet the certification requirements.³³ This application is also done on the standard form, which may be found on the Commissions website.³⁴ The Commission Clerk keeps a list of interested parties, including the Division of Public Utilities and Carriers, who are notified of a new application for certification or request for Declaratory Judgment.³⁵ Any party may submit comments to the Commission, in writing, within 30 days of an application or request being filed.³⁶ After the comment period, the Commission will consider the application or request during an open meeting, and may approve the application or request, or set a hearing on the matter.³⁷ The hearing must give parties at least ten days notice.³⁸ The Commissions will issue a statement of qualification to all applications for certification, which will give the wind generator a unique certification number, and will designate whether the unit qualifies as a New Renewable Energy Resource.³⁹ A Declaratory Judgment will be issued by the Commission within 120 days of filing the request.⁴⁰

Wind generators are an eligible renewable energy resource so long as they generate electricity in the NEPOOL area.⁴¹ Wind generators sited by customers⁴² or off-grid wind

³². A Declaratory Judgment, in this context, is an official opinion made by the Commission about whether a future renewable energy project will meet the requirements of the Standard, as a new renewable energy resource. This declaration allows developers to ensure that future turbines will produce credits that can be marketed to electricity distribution companies for compliance with the Standard. *Id.*

³³. *Id.*

³⁴. *Id.*

³⁵. *Id.*

³⁶. *Id.*

³⁷. *Id.*

³⁸. *Id.*

³⁹. *Id.*

⁴⁰. *Id.* at 9-10.

⁴¹. § 39-26-5(b).

⁴². The Corporation defines a customer-sited project as a generation unit that is interconnected on the customer's side of the retail electricity meter, so that a customer is using the energy produced by the unit rather purchasing any or a portion of energy from the electricity distribution company. § 39-26-2(4).

generators⁴³ may also be eligible, so long as they are physically located in Rhode Island and certified by the Commission.⁴⁴ In addition to the standard application for certification, customer-sited and off-grid facilities must submit a proposed procedure for the operation of the “aggregation” with the application for certification.⁴⁵ The aggregation may consist of one or more generators, as long as all units are provided for and operate within the Aggregator Agreement.⁴⁶ These agreements are specifically tailored to the site, and are formed from the proposed procedure submitted to the Commission.⁴⁷ The main purpose of these agreements is to ensure that the electricity being produced is being delivered into the NEPOOL area and is properly accounted for.⁴⁸ Thus, the Standard requires a Verifier take meter readings, and report findings to the Commission.⁴⁹ The owner of the facility is responsible for selecting a Verifier and determining the Verifiers compensation, but the Verifier must be approved by the Commission and may not have any significant interest in the site being verified.⁵⁰ Because the Standard allows for customer cited generators to be certified, customers engaging in net metering, described below, are also able to sell the credits their system produces for an additional profit.

After certification, power output from all renewable energy generators will continue to be monitored by NEPOOL GIS, in order to determine that it is continuing to produce energy.⁵¹

Additionally, if a change in eligibility is discovered, the owner must notify the Commission, and

⁴³. The Corporation defines an off-grid wind generator as a site that is not connected to a utility transmission or power lines. § 39-26-2(21).

⁴⁴. § 39-26-5(c).

⁴⁵. STATE OF R.I. AND PROVIDENCE PLANTATIONS PUBLIC UTILITIES COMMISSION, RULES AND REGULATIONS GOVERNING THE IMPLEMENTATION OF THE RENEWABLE ENERGY STANDARD, 11.

⁴⁶. *Id.*

⁴⁷. *Id.*

⁴⁸. *Id.*

⁴⁹. *Id.* at 13.

⁵⁰. *Id.* at 12.

⁵¹. *Id.*

recertification of the generator may be required.⁵² Failing to notify the Commission about changes in eligibility or providing false information to the Commission may result in the suspension or revocation of certification, with the possibility of additional sanctions.⁵³

The Commission will, from time to time, open a docket to determine the adequacy of the renewable energy supply in order to determine the feasibility of meeting the annually increasing requirements of the Standard, as well as the necessity to continue the enforcement of the Standard once the Standard has been met.⁵⁴ In evaluating the adequacy of the available resources, the Commission looks at the number of certificates available and/or the net cost of the certificates.⁵⁵ The Commission will also consider the potential for future certificates based on new projects, trends in renewable energy costs, and the benefits being brought to Rhode Island as a result of this Standard, for both the feasibility and necessity of the Standard.⁵⁶

In sum, the Renewable Energy Standard creates an increased demand for renewable energy by requiring electricity distribution companies to purchase NE GIS Certificates, created through renewable energy production. Certificates provide turbine owners with a marketable product, in addition to the energy produced. While renewable energy producers could sell their certificates on the open market, standard contracts, described below, offer a streamline system for the sale of both certificates and electricity. However, distribution companies may still choose to purchase alternative compliance payments in lieu of certificates.

b. LONG TERM CONTRACTING STANDARD

In 2009 the Long-Term Energy Contracting Standard was enacted in order to facilitate the creation of long-term contracts between electricity distribution companies and developers of

^{52.} *Id.*

^{53.} *Id.*

^{54.} *Id.*

^{55.} *Id.*

^{56.} *Id.* at 7.

renewable energy resources in Rhode Island.⁵⁷ Electricity distribution companies, operating within Rhode Island, must enter into long-term contracts, totaling ninety (90) megawatts (MW) of nameplate capacity, with newly developed renewable energy resources, by December 30, 2013.⁵⁸ With the first compliance year in 2010, electricity distribution companies were required to secure 25% of the necessary contracts by December 30, and an additional 25% by the end of each, of the next three, years.⁵⁹

In order to meet this goal, electricity distribution companies are required to solicit proposals from renewable energy developers for ten to fifteen year contracts for the purchase of capacity, energy, and attributes of a newly developed renewable energy resource.⁶⁰ In order to qualify as a new renewable energy project, operation must not have begun, and the developer must not have secured the investments necessary to finance construction.⁶¹ During the solicitation process parties are able to reasonably negotiate the final terms of the contract, but electricity distribution companies are only required to enter into contracts that are commercially reasonable.⁶² Under this statute, no contract entered into is effective without the approval of the Commission.⁶³ Contracts must include, as a condition of their approval, information of other direct economic benefits to Rhode Island such as job creation, increased property tax revenues or other similar revenues.⁶⁴

⁵⁷. R.I Gen. Laws § 39-26.1-1.

⁵⁸. *Id.* at § 39-26.1-2 (7).

⁵⁹. *Id.* at § 39-26.1-3 (c)(2).

⁶⁰. *Id.* at § 39-26.1-3 (a).

⁶¹. *Id.* at § 39-26.1-2 (1).

⁶². *Id.* Commercially Reasonable is means that the terms and pricing that are reasonably consistent with what an experienced power market analyst would expect to see in a transaction involving a newly developed renewable energy resourced. *Id.* This definition also considers having a credible project operation date, but a project need not have the requisite permitting to be considered commercially reasonable. *Id.*

⁶³. *Id.* at § 39-26.1-3 (b).

⁶⁴. *Id.*

Electricity distribution companies are able to propose timetables and methods for the solicitation of the required contracts, but they are subject to the approval of the Commission.⁶⁵

These methods must be reasonably designed to achieve the 90 MW on time, and must include at least one public solicitation each year, but may also conduct individual negotiations.⁶⁶

Electricity distribution companies are not required to enter into contracts, which would exceed the required total for that year.⁶⁷

Upon entering into a long-term standard contract, the electricity distribution company is required to immediately sell all of the energy and capacity in the wholesale spot market, provided all such sales are made through arms-length transactions.⁶⁸ All attributes acquired, including NE-GIS Certificates, are to be sold through a commercially reasonable competitive bidding process.⁶⁹ An electricity distribution company may request the Commission's approval, but is never required, to use the purchased energy for resale to customers, or the acquired certificates to meet the obligations of the Renewable Energy Standard.⁷⁰ The Commission may reject this request if it feels the proposal would be detrimental to energy markets, the market for NE-GIS Certificates, or the interest of utility customers.⁷¹

Electricity distribution companies are entitled to financial remuneration and incentives for entering into contracts exceeding the base rate revenue requirement, established in the electricity distribution company's cost of service for distribution ratemaking.⁷² Paid annually, the remuneration is equal to 2.75% of the actual annual payments made under the contracts of

^{65.} *Id.* at § 39-26.1-3 (b).

^{66.} *Id.*

^{67.} *Id.*

^{68.} *Id.* at § 39-26.1-5 (b).

^{69.} *Id.* at § 39-26.1-3 (c).

^{70.} *Id.* at § 39-26.1-3 (d).

^{71.} *Id.*

^{72.} *Id.* at § 39-26.1-4.

those projects that are commercially operating.⁷³ Electricity distribution companies also implement tariffs to be charged or credited to all distribution customers for the net cost of payments under these long-term contracts against the sale of the acquired energy, capacity and other attributes. Such a tariff is subject to Commission approval.⁷⁴

In conclusion, the Long-Term Energy Contracting Standard provides demand for new wind energy projects, and allows for a predictable return on investments through long term contracts.⁷⁵ Because the new projects must not have gone online, or even secured all necessary funding, developers must consider whether this contracting standard will be pursued early in the planning process.⁷⁶ Since energy and other electricity products purchased through long-term contracts will not necessarily be produced in the year they are contracted for, or even used for compliance with the Standard.⁷⁷ While providing a significant demand for new wind turbines in the State and a financial incentive for investors, this program leaves gaps in the production of renewable energy, necessary to satisfy the Renewable Energy Standard, allowing opportunities for other investments in wind energy.

c. DISTRIBUTED GENERATION STANDARD CONTRACTS

Distributed generation occurs when energy resources, such as wind turbines, are connected to the distribution grid to allow for energy production to occur in numerous locations rather than from only a few large energy producers.⁷⁸ This disbursement of energy generators throughout a distribution area is designed to reduce the cost of energy production by reducing the distance energy must travel to be consumed, also reducing the stress placed on the grid.⁷⁹

⁷³. *Id.*

⁷⁴. *Id.* at § 39-26.1-5(f).

⁷⁵. R.I Gen. Laws § 39-26.1-1.

⁷⁶. *Id.* at §39-26.1-2 (1).

⁷⁷. *Id.* at § 39-26.1-3 (d).

⁷⁸. R.I Gen. Laws § 39-26.2-2.

⁷⁹. *Id.*

Distributed generation refers to the method of installing a generator directly to the grid, thus turbine owners who enter into long-term contracts or other agreements may also be engaging in distributed generation. Distributed Generation Standard Contracts, which went into effect on June 29, 2011, create an additional 40 MW of demand for renewable energy contracts, and provides developers with a choice in standard contracts.⁸⁰

Distributed Generation Standard Contracts establish a method for creating standard contracts, and implement a system to facilitate electricity distribution companies and producers of renewable energy to enter into these contracts.⁸¹ Distribution companies are obligated to enter into contracts for a total of 5 MW of nameplate capacity by the end of 2011, 20 MW in 2012, 30 MW in 2013, and the final goal of 40 MW must be realized by December 31, 2014.⁸² The Distributed Generation Contract Board, created under this statute, is primarily tasked with developing price ceilings for standard contracts and for establishing and overseeing the Contract Working Group, who develops the standard contracts.⁸³ The standard contracts created by the working group must be applicable to various scales and types of energy resources, as well as balance the need for the projects to obtain financing against the need for the distribution companies to protect themselves and distribution customers against unreasonable risks.⁸⁴ The contracts created must include provisions for the purchase of energy, capacity, renewable energy

^{80.} *Id.*

^{81.} *Id.*

^{82.} *Id.*

^{83.} *Id.* The contract working group consists of the Director of the Office of Energy Resources, a designee from the Division of Public Utilities and Carriers, two designees of the electric distribution company, two individuals designated by the Office of Energy Resources who are experienced developers of renewable generation projects, one individual designated by the Office of Energy Resources who represents a customer of the electric distribution company, and a lawyer designated by the Office of Energy Resources who has at least three years experience in negotiating and/or developing power purchase agreements. *Id.* at § 39-26.2-4-7.

^{84.} *Id.* at § 39-26.2-4-7(2).

certificates, and all other environmental attributes and market products that are available or may become available from the distributed generation facility.⁸⁵

Under a standard contract, a distributed generation facility owner is liable for the cost of interconnection and any upgrades to the system that may be required by the distribution company.⁸⁶ Owners must also make a performance guarantee deposit to the electricity distribution company for every renewable energy certificate estimated to be generated per year, under the contract, which is refunded on a pro-rated basis for renewable energy credits actually created over the first year.⁸⁷ If the distributed generation facility has not derived the output proposed in its enrollment application, within eighteen months of the execution of the contract, the contract is automatically voided and the performance guarantee is forfeited.⁸⁸ The facility owner and the distribution company may negotiate a schedule for payments to be made; if no agreement is reached payments must be made in, no longer than, quarterly installments.⁸⁹ Distributed generation facility owners are responsible for installing an electric meter that conforms to industry standards, in order to measure the energy output of the distribution generation facility, and must implement a system or procedure to demonstrate that certificates are being created.⁹⁰

In order to facilitate the implementation of these standard contracts, the statute requires electricity distribution companies to hold at least three standard contract enrollment periods per

^{85.} *Id.*

^{86.} *Id.* at § 39-26.2-7(2)(i). The owner of a generation facility may appeal to the Commission to have upgrade costs reduced to the extent that the upgrades can be shown to benefit other customers of the electric distribution company. *Id.* at 39-26.2-7(2)(ii).

^{87.} *Id.* at § 39-26.2-7(2)(iii). Must be greater than \$500 and less than \$75,000; \$15.00 per credit for small distributed generation projects, and \$25.00 per credit for large distributed generation projects *Id.* at 39-26.2-7(2)(ii)

^{88.} *Id.* at § 39-26.2-7(2)(iv). The forfeited deposit shall not be retained by the electric distribution company, but rather credited to all distribution customers in rates. *Id.*

^{89.} *Id.* at 39-26.2-7(3).

^{90.} *Id.* at 39-26.2-7(2)(vi). The distributed generation facility may use the electric distribution company's services for the accounting of renewable energy credits, if offered, or may contract a third party approved by the Commission for these services, but the cost of measurement and accounting are burdened on the distributed generation facility owner. *Id.*

year, each open for a two-week period.⁹¹ During these two weeks, the distribution company must receive standard short-form applications for any project to be considered, which must include the project owners identity, the projects proposed location, nameplate capacity and renewable energy class of the project; and any additional information relative to permitting, financial feasibility, ability to build, and timing for deployment of proposed projects.⁹²

In addition to the short-form application, a small wind project, a project under 1.5 megawatts, must submit an affidavit confirming that the project is not a segment of a larger project growing over time.⁹³ Small distributed generation projects that meet both the requirements of all applicable tariffs and regulations, and the criteria of a renewable energy class, are issued contracts on a first-come, first-serve basis at the applicable standard contract price ceiling.⁹⁴ A wind project between 1.5 and 5 megawatts is considered a large distributed generation projects.⁹⁵ Large distributed generation projects must include with their short form a bid for the bundled price of energy, capacity, renewable energy certificates, and all other environmental attributes and market products that are available or may become available from the distributed generation facility on a per kilowatt-hour basis for the output of the project.⁹⁶ Large projects will be selected to receive contracts based on the lowest proposed prices, so long as all prices are under the price ceiling.⁹⁷ In the event multiple projects are offered for the same price, preference is given to those applicants the furthest along in development.⁹⁸

In conclusion, Distributed Generation Standard Contracts provide an additional demand for new wind energy projects and offers an alternative set of terms for developers. Unlike the

⁹¹ *Id.* at § 39-26.2-7(3).

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.* at 39-26.2-6(b).

⁹⁵ *Id.*

⁹⁶ *Id.* at 39-26.2-3(8).

⁹⁷ *Id.*

⁹⁸ *Id.* at 39-26.2-6(c).

Long-Term Standard Contracts, this program may allow operational turbines to apply for contracts.⁹⁹ Both of Rhode Island's standard contract statutes for renewable energy provide considerable production benefits for those considering selling all of the power they produce, but electricity sales through Net Metering allow an even greater range of new wind developers to profit.¹⁰⁰

d. NET METERING

Net metering provides an additional opportunity for those interested in the implementation of wind energy generators to offset the cost of electricity that would normally be purchased from an electricity distribution company; net metering allows the energy generator to sell any excess energy to the distribution company at their "avoided cost," or retail rate.¹⁰¹ Net metering was originally defined under Renewable Energy Standards as "the process of measuring the difference between electricity delivered by an electrical distribution company and electricity generated by a... wind-net-metering facility, and fed back to the distribution company."¹⁰² When the first utility scale wind turbine in Rhode Island was installed at Portsmouth High School, it was proposed as a net metering project; the power was to be delivered to the adjacent high school, and excess power sold to the electricity distribution company, National Grid.¹⁰³ Upon interconnecting the turbine, it was determined that linking the turbine to the high school was impracticable, and was thus only connected directly to the distribution grid.¹⁰⁴ It was unclear whether the Portsmouth system could fit the definition of net

⁹⁹. R.I Gen. Laws § 39-26.2-2; R.I Gen. Laws §39-26.1-2 (1).

¹⁰⁰ R.I Gen. Laws § 39-26.2; R.I Gen. Laws §39-26.1; R.I Gen. Laws § 39-26.4-2(4).

¹⁰¹. R.I Gen. Laws § 39-26.4-2(4). The electric distribution companies avoided cost is equal to the standard service kilowatt hour charge for the net metering customers rate class and time of use billing period (if applicable). *Id.*

¹⁰².

¹⁰³. Wind Watch, *Portsmouth May Receive Less From Utility for Wind-Generated Power*, (November 10, 2011, 9:45 P.M.), <http://www.wind-watch.org/news/2011/02/04/portsmouth-may-receive-less-from-utility-for-wind-generated-power/>

¹⁰⁴. § 39-26-2(17).

metering and receive the avoided cost rate for all of the electricity generated by the site, thus on June 29, 2011 the Renewable Energy Standard was amended to provide a workable and thorough standard for net metering.¹⁰⁵

To be eligible as a net metering resource, a wind turbine must be no larger than 5 MW, based on nameplate capacity, and must be reasonably designed and sized to produce electricity equal to or less than the net metering customer's annual electricity usage at the site.¹⁰⁶ In order to determine this size, the annual consumption of energy is averaged over a three-year period for the account or accounts located at the eligible site.¹⁰⁷ If the three-year average is not yet available, a projected annual consumption of energy may be used in determining eligibility.¹⁰⁸ At no point may all of the net metering in Rhode Island exceed 3% of peak load, and at least 2 MW are reserved for projects 50 kW in nameplate capacity.¹⁰⁹

The eligible net metering system must be owned by the same entity that is the consumer of record on the accounts to be net metered.¹¹⁰ In order to reasonably assure that electricity generated by the net metering site is being consumed by net metered accounts, an eligible net metering site is one where the metering system is located, including farms, or other large sites so long as the site is on part of the same complex or campus as the system.¹¹¹ In the instance of a

^{105.} R.I Gen. Laws § 39-26.4.

^{106.} *Id.* at § 39-26.4-2 (2).

^{107.} *Id.*

^{108.} *Id.*

^{109.} *Id.* at § 39-26.4-3 (2).

^{110.} A net metering system owned by a municipality, multi-municipal collaborative, or owned and operated by a renewable generation developer on behalf of a municipality or multi-municipality collaborative is treated as an eligible net metering system, and all municipal accounts designated by the municipality or multi-municipality collaborative shall be treated as accounts eligible for net metering within an eligible net metering system site. *Id.* at § 39-26.4-2 (3)

^{111.} *Id.*

municipality or multi-municipal collaborative, any account designated by the municipality or multi-municipality collaborative is an eligible net metering system site.¹¹²

All of the accounts to be net metered at the eligible net metering site must be accounts of the same customer of record.¹¹³ Customers may not enter into agreements or arrangements to change the name on accounts in order to artificially expand the eligible for net metering site.¹¹⁴ In the event a property owner of contiguous properties is not the customer of record on each account, the owner can change the nature of the metered service at the accounts at the site to be master metered in the owner's name, or become the customer on record on each account.¹¹⁵ There is no limit to the number of accounts that may be net metered within an eligible site, provided there is a common owner.¹¹⁶

In order to provide a consistent payment schedule, an electricity distribution company may choose to, but is not required to, estimate the production of a net metering system and the aggregate consumption of the net metered accounts in order to establish a monthly billing plan reflecting the expected credits over the entire 12 months, regardless of actual output in a given month.¹¹⁷ At the close of the 12-month period, charges or credits may be issued to reconcile projected and actual output and consumption of the net metering system and accounts.¹¹⁸ If a twelve month estimate is not conducted, the distribution company shall issue renewable net metering credits¹¹⁹ to customers whose net metering system generated equal or less than the net

^{112.} *Id.*

^{113.} *Id.*

^{114.} *Id.*

^{115.} *Id.*

^{116.} *Id.* There is no requirement that there be a single customer of record under a municipal net metering agreement.
Id.

^{117.} *Id.* at § 39-26.4-3 (3).

^{118.} *Id.*

^{119.} A credit is equal to the total kilowatt hours of electricity generated and consumed on site, during the billing period, multiplied by the sum of the distribution company's standard offer service kilowatt hour charge for the rate

metering customer usage. This offsets the usage on the accounts, or excess renewable net metering credits,¹²⁰ to those net metering customers whose net metering system produced more electricity than consumed on accounts at the system site, up to 25% of the of energy consumed in a billing period.¹²¹

In conclusion, the more refined standard for net metering allows for interconnecting sites in order to sell all production at a retail rate, and provides an opportunity for anyone purchasing electricity from an electricity distribution company to offset their costs through the installment of a wind generator. This allows for installations ranging from small generators for residential use, to utility scale sites for large complexes and municipalities. Net metering encourages participants to utilize other energy efficient methods to reduce total energy consumption, in order to completely offset energy costs and potentially receive compensation for additional production. However, in the absence of a contract, net metering customers do not have the assurance of energy certificate sales, which must be done on the open market.

e. DISTRIBUTED GENERATION INTERCONNECTION

In light of the many opportunities for implementing wind projects in Rhode Island, such as long-term contracts, distributed generation contracts and net metering, Rhode Island has also created a process for estimating the cost of interconnecting a renewable energy system.¹²²

Distributed Generation Interconnection allows potential investors in renewable energy to

class applicable to the net metering customer, distribution kilowatt hour charge, transmission kilowatt hour charge, and transition kilowatt hour charge.

^{120.} An excess renewable energy metering credit is equal to the electric distribution company's avoided cost, which is the electric distribution company's standard offer service kilowatt hour charge for the rate class and time-of-use billing period (if applicable) applicable to the distribution customers account(s) at the net metering system site.

^{121.} § 39-26.4-2 (4). If there are multiple accounts at the net metering site in different rate classes, the electric distribution company may use the average of the standard offer rates, applicable to the site, in calculating the excess renewable net metering system credits. *Id.*

^{122.} R.I Gen. Laws § 39-26.3 (2011)

determine the cost of implementing a system by applying for an impact study or a feasibility study¹²³

An impact study is an engineering study, and it assesses an applicant's proposed interconnection, within 25% in either direction, of accurate of costs.¹²⁴ A feasibility study is not based on engineering, but rather is based on the experience and judgment of the electricity distribution company, taking into account the proposed project.¹²⁵ Neither study allows the applicant to hold the distribution company liable for actual costs in the event they exceed the estimated cost for interconnection, but both studies provide prospective developers with "good faith estimations."¹²⁶ It is not necessary that an applicant first obtain a feasibility study before seeking an impact study.¹²⁷ The rates for either study are divided between residential and non-residential applications, and increase in price with the nameplate capacity of the system.¹²⁸ The statute notes that its purpose in formulating such a price structure is to provide disincentives for inquiries into large projects, promoting only serious applicant project proposals.¹²⁹

Thus, developers and individuals interested in installing a wind energy generator are now able to fully assess the cost of such an undertaking in order to determine whether the project would be financially prudent. Combining this study with the price of the proposed system and installation, and using it in conjunction with projections for the demand of new contracts for renewable energy, through the annual compliance filings of distribution companies, alternative

^{123.} *Id.* at § 39-26.3-3.

^{124.} *Id.* at § 39-26.3-2(4); *Id.* at § 39-26.3-3(b).

^{125.} *Id.* at § 39-26.3-2(2).

^{126.} *Id.*

^{127.} *Id.* at § 39-26.3-3(b). It is worth noting that residential projects of 25 kW or less are free under either study. *Id.*

^{128.} *Id.* at § 39-26.3-4(6).

^{129.} R.I Gen. Laws § 42-64-13.2(a) (2004).

compliance rater, and current prices for renewable energy; a developer or potential investor may estimate its cost of producing new renewable energy resources.¹³⁰

2. INCENTIVES OFFERED TO RENEWABLE ENERGY GENERATORS

In addition to the financial opportunities inherent in selling the electricity and certificates produced by wind turbines, Rhode Island developers may receive tax credits and utilize funding programs, on both Federal and State levels, to make projects even more appealing.¹³¹ State incentives may be used in conjunction with federal incentives. When combined with the pricing incentives of the Renewable Energy Standard, contract requirements, and net metering, Rhode Island offers expansive opportunities for new wind energy development.

a. STATE BASE INCENTIVE

Developers of wind energy in Rhode Island may take advantage of statutes and programs offering opportunities for grants, recoverable grants, low interest loans, as well as tax credits and exemptions.¹³² Rhode Island offers funding for both municipalities and private entities, through the Renewable Energy Development Fund and Municipal Energy Development Fund, and may allow property tax exemptions and the recovery of a portion of system costs.¹³³

i. RENEWABLE ENERGY DEVELOPMENT FUND

The first incentive offered by Rhode Island to developers of renewable energy is the Renewable Energy Development Fund, created through the Renewable Energy Coordination Act, which provides funding for new renewable energy projects.¹³⁴ The Economic Development Corporation manages the fund, and developed the standards for its operation, which went into

^{130.} § 39-26.3-6(a)(4).

^{131.} R.I Gen. Laws § 39-26-3 (2011); R.I Gen. Laws § 39-26.2-2 (2011); R.I Gen. Laws § 39-26.4 (2011); R.I Gen. Laws § 39-26.1-1 (2009).

^{132.} R.I Gen. Laws § 39-2-1.2(b)-(c) (2003); R.I Gen. Laws § 44-3-2 (1980); R.I Gen. Laws § 44-57 (2010).

^{133.} R.I Gen. Laws § 39-2-1.2(b).

^{134.} §39-26-2 (1).

effect December 15, 2008.¹³⁵ The program is funded through alternative compliance payments paid by electricity distribution companies¹³⁶

The application for funding must be made on designated application forms, which may be obtained from the Corporation, and must describe how the proposed project will promote the expansion and development of renewable energy resources in Rhode Island.¹³⁷ In assessing a project for approval the applicant must demonstrate: technical feasibility; financial viability; anticipated renewable energy production and cost; project management capabilities; time to market; and economic development benefits to Rhode Island.¹³⁸ The Corporation gives preference to projects that can support low interest loans and/or recoverable grants, which would replenish the fund over time.¹³⁹ Additionally, the Corporation gives first preference to projects that create new jobs in Rhode Island, where the salaries will exceed the amount requested in the grant within the first three years of operation.¹⁴⁰

The funds may be given in the form of loans, grants, and recoverable grants, with requirements such as security or repayment at the discretion of the Corporation.¹⁴¹ The Executive Director of the Corporation may approve a proposal for less than fifty thousand dollars (\$50,000), while the approval by Board of Directors along with the Executive Director's approval, is required for larger projects.¹⁴² The grants and loans given through this fund may be up to seven hundred and fifty thousand dollars (\$750,000).¹⁴³ For projects that exceed two

^{135.} *Id.*

^{136.} R.I Gen. Laws § 39-2-1.2(b).

^{137.} RI ECON. DEV. CORP., RULES AND REGULATIONS FOR THE RENEWABLE ENERGY DEVELOPMENT FUND INCLUDING THE MUNICIPAL RENEWABLE ENERGY INVESTMENT PROGRAM AND THE NON-PROFIT AFFORDABLE HOUSING RENEWABLE ENERGY INVESTMENT PROGRAM, 4 (2008).

^{138.} *Id.*

^{139.} *Id.*

^{140.} *Id.*

^{141.} *Id.*

^{142.} *Id.*

^{143.} *Id.*

hundred and fifty thousand dollars (\$250,000), the Corporation gives preference to projects that can be paid over at least a three-year period.¹⁴⁴ Anyone who has already received funding under this program is ineligible to receiving additional funding.¹⁴⁵

Therefore, any developer in need of capitol for new wind energy projects, who has not already utilized this fund, may apply to receive a grant or loan to fund all or a portion of the project. Because this fund utilizes alternative compliance payments as the basis for its funding, the availability of funding for a given year may fluctuate in relation to the amount of payments made, and number of applications for funding. The Renewable Energy Standard, which establishes the availability of alternative compliance payments, is in effect until the Commission deems it ineffective or unnecessary. Thus, the fund should provide a reliable source of funding for new wind turbines.

ii. MUNICIPAL RENEWABLE ENERGY INVESTMENT FUND

Municipalities are also able to receive similar funding to private individuals through the Municipal Renewable Energy Investment Fund, which was also created through the Renewable Energy Coordination Act, and is overseen by the Economic Development Corporation.¹⁴⁶ The Corporation's standard for disbursing the municipal funds also went into effect December 15, 2008, but uses slightly different criteria for selecting projects for funding, and an alternative source for funding.¹⁴⁷

Beginning January 1, 2003, each electricity distribution service was required to include a 0.3 mills per kilowatt-hour charge to its sale of electricity, effective through the end of 2013.¹⁴⁸ The fund was open for disbursements on January 1, 2009, and each year 50% of the funds

^{144.} *Id.*

^{145.} *Id.* at 5

^{146.} §39-26-2 (1).

^{147.} *Id.*

^{148.} *Id.* at § 39-2-1.2(c).

generated from the charge, up to one million dollars, is allotted to the Municipal Renewable Energy Investment Program.¹⁴⁹ Under this program, a municipality may seek up to \$500,000, and, unlike the Renewable Energy Investment Fund, repeat funding is not prohibited, but those who have not previously received funding from this program are given priority.¹⁵⁰

In order to qualify for funding, a renewable energy project must be wholly controlled by at least one Rhode Island city or town.¹⁵¹ Municipalities may obtain application forms from the Corporation.¹⁵² As with its disbursement of the Renewable Energy Development Fund, the Corporation considers the technical feasibility, financial viability, anticipated renewable energy production and cost, project management capabilities and time to market of the project, but preference is given to projects that involve partnership between two or more municipalities.¹⁵³ Any money not awarded in a given year is rolled over, and added to the balance of funds for projects in the following year.¹⁵⁴

iii. RENEWABLE ENERGY TAX EXEMPTION

In addition to receiving funding for wind energy projects, developers may also enjoy tax benefits for investing in renewable energy. One incentive available to investors is the potential to have the property that a renewable energy system is sited exempted from property taxes.

Rhode Island city or town councils are authorized by the state to pass ordinances exempting any renewable energy system located within the town or city from property taxes.¹⁵⁵ In order to receive this benefit, the applicant must identify the appropriate method for applying

¹⁴⁹ *Id.* at § 39-2-1.2(c)(1)-(3).

¹⁵⁰ *Id.* at § 39-2-1.2(c)(3).

¹⁵¹ *Id.* at § 39-2-1.2(c)(1)(i)-(iv).

¹⁵² RI ECON. DEV. CORP., RULES AND REGULATIONS FOR THE RENEWABLE ENERGY DEVELOPMENT FUND INCLUDING THE MUNICIPAL RENEWABLE ENERGY INVESTMENT PROGRAM AND THE NON-PROFIT AFFORDABLE HOUSING RENEWABLE ENERGY INVESTMENT PROGRAM, 6.

¹⁵³ *Id.* at 6-7.

¹⁵⁴ R.I Gen. Laws. at § 39-2-1.2(c)(3).

¹⁵⁵ R.I Gen. Laws § 44-3-2 (1980).

within the particular city or town in which the system is sited or proposed. Because each city or town council is granted the discretion to grant such an exemption, the application as well as the criteria for approval will vary in each location.

Thus, while the availability of this exemption will depend on the city or town council assessing each site, this statute provides the potential for developers of wind energy generators to reduce the operating cost of a facility, and thus reduces the cost of each electricity unit produced by the facility.¹⁵⁶ Therefore, this statute has the capability to increase the profit margin for developers of wind energy by reducing the cost of producing renewable energy.¹⁵⁷ In the alternative, if cities and town councils actively apply this statute, to the extent that a significant portion of new applicants for contracts are able to offer lower rates to distribution companies, the price of electricity paid by retail consumers could also be reduced.¹⁵⁸

iv. RESIDENTIAL RENEWABLE ENERGY SYSTEM TAX CREDIT

While the Renewable Energy Investment Fund does not exclude residential applications from applying for grants and loans, the Municipal Energy Investment Fund inherently excludes residential applicants, and property tax exemptions seem unlikely. However, Rhode Island does offer a tax credit specifically for residential developer, allowing a portion of the total cost of a wind turbine to be recovered.¹⁵⁹

The Residential Renewable Energy System Tax Credit allows the purchaser of a new renewable energy generator to receive 25% of the system cost back in tax credits, up to a cost of \$15,000.¹⁶⁰ In order to qualify, a wind turbine must have a rotor diameter of at least 44 inches, a factory output of at least 250 watts, at twenty-eight mph, and is installed in a residential

^{156.} *Id.*

^{157.} *Id.*

^{158.} *Id.*

^{159.} R.I Gen. Laws § 44-57 (2010).

^{160.} *Id.*

dwelling.¹⁶¹ These systems must be certified by the state or installed by a contractor licensed to issue state certifications.¹⁶² The tax credit must be applied for in the tax year the system is installed, or the year they are purchased if they are to be installed before April 1 of the following tax year, and may not be carried over to a subsequent tax year.¹⁶³ In the event of a purchase by a partnership, joint venture, or corporation, the credit is divided in the same manner as income, but in no instance may the tax credits reduce the minimum tax paid, where a minimum tax is required by law.¹⁶⁴ In implementing this statute, Rhode Island repealed the Renewable Energy Sales Tax Credit, which allowed for the refund of any sales tax paid on qualifying renewable energy resources, regardless of whether the system was residential.¹⁶⁵

Thus, under the Residential Energy System Tax Credit, residential investors are able to recover a greater percentage of the system cost through tax credits than allowed under the Renewable Energy Sales Tax Credit.¹⁶⁶ Because of its exclusive residential nature, businesses and other entities are no longer able to receive Rhode Island tax credits for costs associated with erecting wind turbines, but this loss is more than offset by other State incentives.¹⁶⁷

b. FEDERAL INCENTIVES FOR WIND ENERGY PRODUCTION

The federal government has issued several short-term incentives in the past decade to encourage the development of wind energy, including tax credits offered under the American Recovery and Reinvestment Tax Act of 2009, but many of these programs are run under very short timelines.¹⁶⁸ It is important, prior to investing in a wind generator of any scale, to determine the current status of federal assistance and incentives. Producers and investors of

^{161.} *Id.*

^{162.} *Id.* at § 44-57-6.

^{163.} *Id.* at § 44-57-1 (b).

^{164.} *Id.* at § 44-57-1 (c)-(d).

^{165.} *Id.* at § 44-57-4.

^{166.} *Id.* at § 44-57-1 (d) .

^{167.} *Id.*

^{168.} 26 U.S.C. § 1 (2009).

renewable energies are eligible to receive federal tax credits and capitol funding for new projects through New Clean Renewable Energy Bonds and New Market Tax Credits, while the Public Utilities Regulatory Act of 1978 provides a potential pricing incentive for renewable energy.¹⁶⁹

i. FEDERAL TAX CREDITS FOR WIND GENERATORS

The first of the federal incentives currently available, the Federal Production Tax Credit, has been one of the most consistently available.¹⁷⁰ The tax credit was enacted as part of the Energy Policy Act of 1992.¹⁷¹ As with most of the federal incentives, it has gone through several cycles of expiration and renewal, and most recently the American Recovery and Reinvestment Tax Act of 2009 extended credit through December 31, 2012.¹⁷² It is still uncertain whether the credit will be renewed beyond this date.

The Wind Energy Production Tax Credit offers a kilowatt-hour tax credit for wind-generated electricity, for the first 10 years of operation.¹⁷³ The rate is adjusted annually for inflation, with the current rate set at 2.2¢/kWh.¹⁷⁴ In order for a wind energy facility to qualify under the credit, the facility must be a “utility scale” turbine, or one greater than 100 kilowatts of nameplate capacity.¹⁷⁵ The facility must also be owned by the taxpayer and placed in service after December 31, 1993, and before January 1, 2013.¹⁷⁶

The tax credit may be claimed by completing Form 8835, "Renewable Electricity Production Credit," and when the credit is being claimed by a business, Form 3800, "General Business Credit," must also account for the credit.¹⁷⁷ Both of these forms are available on the

^{169.} R.I Gen. Laws § 44-57; 26 U.S.C. § 1.

¹⁷⁰ 45 U.S.C. § 38.

^{171.} 42 U.S.C. § 134 (1992).

^{172.} H.R. 1 (Div. B, Section 1101 & 1102).

^{173.} 45 U.S.C. § 38.

^{174.} H.R. 1 (Div. B, Section 1101 & 1102).

^{175.} 26 U.S.C. § 25D.

^{176.} 45 U.S.C. § 38.

^{177.} *Id.*

Internal Revenue Service website.¹⁷⁸ This tax credit is reduced for projects that receive other federal tax credits, grants, tax-exempt financing, or subsidized energy financing, but is not affected by any state incentives utilized by the project.¹⁷⁹

For those systems below the utility scale level, or “small wind energy properties,” the federal government allows 30 percent of the renewable energy system cost to be recovered as a tax credit under the Residential Energy Efficient Property tax credit. To qualify, the system must be less than 100 kilowatts of nameplate capacity, be installed at a residence, and the taxpayer seeking the credit have actually purchased the system.¹⁸⁰ This tax credit is good for up to four thousand dollars (\$4000), and is available only for the tax year the turbine is purchased or installed.¹⁸¹ This incentive expires December 31, 2016.¹⁸² When used in combination with Rhode Island’s residential tax credit, developers may be able to recover more than half of the total system cost.¹⁸³

In conclusion, developers of both utility scale and residential projects can benefit from receiving federal tax credits for their production of renewable energy or purchase of a new renewable energy system.¹⁸⁴ These incentives inherently exclude developers of non-residential wind turbines smaller than utility scale, or those entities who are exempt from federal income tax. For those who are able to take advantage of this credit, it is especially beneficial because it may be claimed in conjunction with all state incentives and potentially with select federal incentives.

ii. NEW CLEAN RENEWABLE ENERGY BONDS

^{178.} *Id.*

^{179.} *Id.*

^{180.} 26 U.S.C. § 25D.

^{181.} *Id.*

^{182.} *Id.*

^{183.} R.I Gen. Laws § 44-57 (2010).

^{184.} *Id.*

The federal government seeks to encourage investment in new renewable energy resources by offering tax credits to investors who purchase bonds to fund projects.¹⁸⁵ The U.S. Treasury issues clean Renewable Energy Bonds to specific public power providers, governmental bodies, and cooperative electric companies; they may then issue bonds to finance capital expenditures of new renewable energy projects.¹⁸⁶ In return, the bondholder receives tax credits in addition to the repayment of the bond with interest.¹⁸⁷ The Treasury has already allocated all available bonds under the most recent award, and it is still uncertain whether any more will be issued, but bond issuers may still have bonds available in order to fund additional renewable energy projects, providing a potential source for capital funding.¹⁸⁸

The requirements for a wind facility to qualify for a New CREB are the same as to receive Production Tax Credits.¹⁸⁹ The most recent renewal of the statute, passed August 4, 2009, authorized the Secretary to issue up to \$2.4 billion in CREB's, with one third of the total CREB's allocated to public power providers, governmental bodies, and cooperative electric companies, respectively.¹⁹⁰ These groups may then issue bonds to renewable energy programs.¹⁹¹ The issuer of the bond receives a tax credit, considered as taxable income, equal to 70% of the value of the bond, per year, as compensation for the risk of holding the bond.¹⁹² The solicitation resulted in the allocation of \$2.2 billion in new CREB's for 805 projects across the country.¹⁹³ In September 2010, roughly \$191 million dollars of unallocated bonds were made

^{185.} 26 USC § 54C.

^{186.} *Id.*

^{187.} *Id.*

^{188.} *Id.*

^{189.} *Id.* at § 54C(d)(1).

^{190.} *Id.* at § 54C(c).

^{191.} *Id.*

^{192.} IRS Notice 2009-33 (2009).

The issuer may also be able to take a one-time compensation in lieu of annual credit. H.R. 2847 (Sec. 301)

^{193.} *Id.* at § 54C(c).

available to electric cooperatives, and award announcements for the allocation were made in March 2011.¹⁹⁴

While there are no remaining CREB solicitations, the funding for renewable energy resources is derived from the issuers, who received CREB awards.¹⁹⁵ New CREB's must be issued within three years of their award, and public power providers, governmental bodies, and cooperative electric companies may still have bonds available to aid in the funding of new wind projects.¹⁹⁶ In practice, it has been reported that many issuers have had trouble acquiring buyers of bonds, and as a result have had to issue bonds at discounted rates or other incentives.¹⁹⁷

Thus, while uncertainty surrounds the future potential for this statute to provide an incentive for public power providers, governmental bodies and cooperative electric companies to fund future projects, current funding may still be available. In light of the difficulty some issuers have reported in finding buyers of bonds, if bonds are available more favorable bond terms could further reduce a developer's initial cost.

iii. NEW MARKET TAX CREDITS

The New Markets Tax Credit Program was authorized by the Community Renewal Tax Relief Act of 2000 on December 15, 2000.¹⁹⁸ It is jointly administered by the Community Development Financial Institution Fund and the Internal Revenue Service, and has been extended and amended since initial authorization.¹⁹⁹ The program provides similar incentives similar to the Clean Renewable Energy Bonds, in providing a federal income tax credit to investors

¹⁹⁴. IRS Announcement 2010-54 (2010).

¹⁹⁵. 26 USC § 54C.

¹⁹⁶. IRS Announcement 2010-54 (2010).

¹⁹⁷. Database of State Incentives For Renewable Energy, *Clean Renewable Energy Bonds (CREBs)*, (Nov. 18, 2011, 10:04 A.M.), http://dsireusa.org/incentives/incentive.cfm?Incentive_Code=US45F&re=1&ee=1.

¹⁹⁸. 25 U.S.C. § 45 (2000).

¹⁹⁹. *Id.* at § 45(a)(2).

of Community Development Entities (CDEs).²⁰⁰ In order to qualify as a CDE, an organization must be a domestic corporation or partnership which demonstrates a primary mission of serving or providing investment capital for low-income communities or low-income persons, and must display a means of accountability to residents of low-income communities through representation on a governing or advisory board.²⁰¹ To apply for a credit, a CDE must apply during the application period of July through September; however, it is not necessary for the CDE to have identified any specific projects or commit any capital to a project to qualify.²⁰²

Once approved, the CDE must use the funds to provide loans or equity investments for designated projects in lower-income communities.²⁰³ Tax credits are received by the CDE, equal to 39 percent of the funds invested, claimed over a seven year period, and are passed on to investors based on their proportionate investment in the CDE.²⁰⁴ In each of the first three years, investors receive a credit equal to five percent of the total amount paid for the stock or capital interest at the time of purchase, and receive six percent, annually, in the final four.²⁰⁵ Investors may not redeem their investments in a CDE prior to the conclusion of the seven-year period.²⁰⁶

The community to be benefitted by the New Market Tax Credits must meet certain low-income characteristics.²⁰⁷ Communities with a poverty rate greater than 20 percent (a median family income under 80 percent of the statewide median, or a median family income under 80 percent of the statewide median or greater metropolitan area within a part of a metropolitan area)

^{200.} *Id.* at § 45(c).

^{201.} *Id.*

^{202.} U.S. Department of The Treasury, *New Market Tax Credit Program*, 25 U.S.C. § 45 http://www.cdfifund.gov/what_we_do/programs_id.asp?programID=5.

^{203.} *Id.*

^{204.} *Id.*

^{205.} 25 U.S.C. § 45(b).

^{206.} *Id.*

^{207.} *Id.* at § 45(d).

are considered a low-income community or the purposes of funding.²⁰⁸ The program also considers factors such as low populations or high out-migration in determining areas eligible for funding.²⁰⁹

New Market Tax Credits have been utilized in the past, and continue to be utilized for the funding of wind energy sites. In 2006, three Midwestern and one Gulf Coast CDE were awarded credit allocations to provide debt and equity for rural businesses involved in value-added agricultural activities including implementing renewable energy generators.²¹⁰ In September 2011, Rockland Trust Community Development, made a \$2.25 Million loan to a family owned company in Fall River, MA, for the rehabilitation of a grain facility that now serves as a new research and development test site for TPI Composites, Inc. (TPI), an Arizona based company, one of the largest wind turbine and blade manufacturer in the world.²¹¹

iv. PUBLIC UTILITIES REGULATORY POLICY ACT OF 1978

While the Public Utilities Regulatory Policy Act of 1978 (PURPA) primary concern was the creation of guidelines for the regulation of utilities providers, it offers one provision which could potentially serve as a pricing incentive for renewable energy resources.²¹²

PURPA was enacted as part of the National Energy Act of 1978, as a response to energy supply instability in the United States.²¹³ The Act requires utilities to purchase energy from non-utility generators or small renewable energy producers that can produce electricity for less than

²⁰⁸. *Id.* at § 45(d).

²⁰⁹. *Id.* at § 45(e).

²¹⁰. WindIndustry, *New Market Tax Credits*, Wind Applicability (Nov. 5, 2011, 11:35 A.M.), <http://www.windindustry.org/new-market-tax-credits>

²¹¹. New Market Tax Credit Coalition, *Wind Turbine Manufacturers in Fall River, MA*, New Market Tax Credit Program as of September 2011, (Nov. 5, 2011, 11:55 A.M.) <http://nmtccoalition.org/wp-content/uploads/NMTC-Fact-Sheet-MA.pdf>.

²¹² 16 U.S.C § 46.

²¹³. *Id.*

what it would have cost for the utility to generate the power, or the avoided cost.²¹⁴ While this law remains in effect and provides a potential incentive for renewable energy, the current low price of nonrenewable energy makes PURPA less helpful today. In the event of a major energy shortage due to increased prices in fossil fuel, it is possible that this provision in PURPA could be utilized for wind energy facilities.

Thus, in the event of an energy crisis or other event causing the price of non-renewable energy to rise in the United States, PURPA creates a pricing incentive to renewable energy facilities by requiring energy distribution companies to purchase renewable energy resources at the avoided cost. Additionally, as technology in renewable energy increases, and energy production cost decreases, PURPA would compel distribution companies to purchase renewable energy if it is produced below the avoided cost rate.²¹⁵

In conclusion, developers and investors alike are able to take advantage of federal and state tax credits as well as loans, grants, and bonds to fund new projects. At the state level, Rhode Island offers funding for both municipalities and private entities seeking to develop renewable energy through the Renewable Energy Development Fund and the Municipal Energy Development Fund, and also offers opportunities for property tax exemptions and allows residential investors to recover a portion of new systems costs.²¹⁶ At the federal level, producers of renewable energies may receive tax credits for the production of renewable energy, or the purchase of new generation systems, and may receive capital funding through New Clean Renewable Energy Bonds, and New Market Tax Credits. The federal system also encourages investment in renewable energy, through the purchase of bonds, by allowing tax credits as additional compensation, and offers a pricing incentive in the event of an energy shortage, or

²¹⁴. *Id.*

²¹⁵. *Id.*

²¹⁶. R.I Gen. Laws § 39-2-1.2(b)-(c).

technological advancement.²¹⁷ Despite the uncertainty surround thing future of many federal programs, investors and developers who are able to utilize both federal and state programs able to realize substantial incentives for developing renewable energy.²¹⁸

3. CONCERNS WITH THE IMPLEMENTATION OF WIND ENERGY

Despite the surplus of benefits stemming from wind energy resources, the implementation of wind turbines may be in conflict with other concerns in a community. The development and operation of a wind turbine presents potential dangers for protected bird and animal species, zoning conflicts with government agencies, and potential resistance from those who live near turbines. Cooperation becomes crucial in order to balance all of the overlapping interests within a community and avoid potential litigation.

a. ENVIRONMENTAL CONCERNS

Wind energy allows the production of electricity without the carbon footprint associates with many traditional energy sources, but emissions-free energy production does not mean that wind turbines do not present adverse effects to the environment. As with the construction of any new structure, the clearing of land may adversely affect the wildlife in the area, including species protected by federal law. Additionally, wind turbines, by nature, also pose unique risks to airborne animals that may be injured or killed by spinning blades. The U.S. Fish and Wildlife Service (FWS) is the agency charged with promulgating standards and enforcing the Endangered Species Act, Migratory Bird Treaty Act, and Bald and Golden Eagle Protection Act.²¹⁹ The FWS has established new voluntary guidelines for siting and operating land based wind turbines, but compliance with the Acts they oversee is mandatory. Cooperation with FWS in the siting, development, and operating of land based wind turbines is necessary in order to reduce the

^{217.} *Id.*

^{218.} *Id.*

^{219.} 16 U.S.C. § 1532 (2011); 16 U.S.C. § 703; 16 U.S.C. 668.

impact a turbine creates on its environment as well to avoid, to the extent possible, penalties associated with violating the Acts.

i. ANIMAL WELFARE INSTITUTE, ET AL. V. BEECH RIDGE ENERGY LLC, ET AL.

The Beech Ridge Energy project, located in Greenbrier County, West Virginia, was sued by a group of citizens, under the Endangered Species Act, to stop Beech Ridge from continuing construction of a wind farm.²²⁰ The citizens alleged that the project posed a significant threat to Indiana Bats, protected under the Act.²²¹ While no formal permit is required to by the FWS to construct a wind turbine, Animal Welfare Institute v. Beech Ridge Energy LLC demonstrates the necessity of cooperation in developing land based wind energy sites.

The Endangered Species Act, enacted in 1973, makes it unlawful for any person to “take” any endangered species within the United States, where a take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct.”²²² Anyone who knowingly “takes” an endangered species under this section is subject to civil fines up to \$25,000 per violation, and criminal fines of up to \$50,000 and one year imprisonment.²²³

The court first looked at whether the plaintiffs, comprising several groups and individuals, were able to bring such an action.²²⁴ Under Section 11 of the ESA, “any person” can bring a citizen suit in federal district court to enjoin anyone who is allegedly in violation of the Act of related regulations.²²⁵ A “person” can be any private entity such as an individual, corporation, partnership, trust, or association.²²⁶ The Supreme Court has held that there is an

²²⁰ Animal Welfare Institute v. Beech Ridge Energy LLC, 674 F. Supp. 2d 540 (2009).

²²¹ *Id*

²²² 16 U.S.C. § 1532.

²²³ 16 U.S.C. § 1540 (a), (b).

²²⁴ 16 U.S.C. 1540(g).

²²⁵ 16 U.S.C. § 1523 (13).

²²⁶ 674 F. Supp. 2d at 559 (citing Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992)).

“irreducible constitutional minimum of standing” which requires an “actual or imminent injury that is concrete and particularized, a casual connection between the injury and the conduct complained of, and likelihood that a favorable decision will redress the issue.”²²⁷ Because of the Act’s citizen-suit provision, the plaintiff’s grievances do not need to fall within the zone of interests protected by the statute, as would be required in the absence of a citizen-suit provision.²²⁸ Congress explained that citizen-suit actions are designed to allow any person “to seek remedies involving injunctive relief for violations or potential violations of the Act.”²²⁹ In assessing these two standards together, the court found that the plaintiffs had an “injury-in-fact”; because the decline of Indiana bats would negatively impact their use of Indiana bat caves in the vicinity, the injury was fairly traceable to the defendants’ construction and operation of wind turbines.²³⁰

Beech Ridge contended that the plaintiffs were unable to bring a claim under the ESA for the protection of a wholly future harm, noting that the Supreme Court and Fourth Circuit had interpreted identical citizen-suit provisions in the Clean Water Act to grant jurisdiction over wholly future claims.²³¹ The court rejected that argument, finding that the provision for injunctive relief, granted under the ESA, was inherently designed to prevent future harms, and to require that an endangered species actually be harmed or killed before an action may be taken would be offensive to the purposes of the Act.²³²

^{227.} 674 F. Supp. 2d at 559 (citing Bennett v Spear, 520 U.S. 154, 162-66 (1997)).

^{228.} 674 F. Supp. 2d at 560.

^{229.} H.R. Rep. 93-412 (1973).

^{230.} 674 F. Supp. 2d at 560.

^{231.} 16 U.S.C. § 1532(13).

^{232.} 674 F. Supp. 2d at 560; See Gwaltney of Smithfield, Ltd. V. Chesapeake Bay Found, Inc., 484 U.S. 49, 180 S. Ct. 379 (1987).

The court noted that there was no definitive standard set out in the Act for the degree of certainty required in regard to the possibility of a take.²³³ The court stated that the Act was silent about the certainty for establishing a take, but the FWS implementing regulations implied the standard for “harm” is higher than “harassment,” and harm may not be mere speculation of likely of harm.²³⁴ The court also looked to other courts’ interpretation of the requirement, and rejected the First Circuit’s requirement that there be a showing of actual harm, and instead adopted the Ninth Circuit’s standard that the challenged activity was reasonably certain to imminently harm, kill, or wound the listed species.²³⁵

In judging whether the Beech Ridge project was reasonably certain to imminently harm, kill, or wound the Indiana Bat, the court looked at the processes in which Beech Ridge used in assessing the sites, including pre-construction studies conducted on the site, the quality of the studies.²³⁶ To judge the credibility of Beech Ridge experts and sufficiency of the pre-construction research, the court also admitted testimony and data from other experts in the field.²³⁷ Beech Ridge failed to conduct surveys in all periods of the year where bats were known to be in the area, and during the periods the defendant did conduct surveys, only nets were used.²³⁸ In addition to the insufficient duration of testing and variation of survey methods, expert testimony showed that Beech Ridge installed the mist nets where they were not likely to capture bats, and conducted surveys on nights near a full moon which made the employed netting technique ineffective.²³⁹ In order to determine whether the Beech Ridge experts conducted adequate pre-construction surveys of the site, the court heavily weighed the credibility of both

^{233.} *Id.* at 561.

^{234.} 16 U.S.C. § 1532(13).

^{235.} 674 F. Supp. 2d at 561; See Marbled Murrelet v Pacific Limber Co., 83 F.3d 1060, 1068 (9th Cir. 1996); See American Bald Eagle v Bhatti, 9 F.3d 163, 165 (1st Cir. 1993).

^{236.} 674 F. Supp. 2d at 564-74.

^{237.} *Id.*

^{238.} *Id.* at 564.

^{239.} *Id.*

side's experts, and specifically noted the incompetence of Beech Ridge operations.²⁴⁰

Furthermore, the record reflected that Beech Ridge repeatedly ignored or dismissed advice from FWS, that more surveys, multiple survey methods, and plans to minimize the risk or taking Indiana Bats, were necessary.²⁴¹

The court found that mere approval from the local planning; which only required Beech Ridge to enter into voluntary mitigation measures if the site, post construction, posed a risk and did not prevent scrutiny by the FWS.²⁴² The court further concluded that cooperation with FWS was the only way to ensure the interests of both the production of renewable energy, and the continued protection of endangered species.²⁴³ Because of Beach Ridge's continued failure to conduct responsible procedures or coordinate with the FWS, the court found that an injunction was the only way to ensure cooperation.²⁴⁴ Beech Ridge was able to have the injunction removed by applying for, and receiving an Incidental Take Permit (ITP) from FWS.²⁴⁵

A person may seek an ITP from the FWS by submitting a Habitat Conservation Plan (HCP), which must include a description of the impacts that will likely result from the taking, proposed steps to minimize and mitigate such impacts, and alternatives considered by the applicant including reasons why these alternatives are not being pursued.²⁴⁶ An ITP protects the permit holder from fines for "taking" an endangered species, "if such a taking is incidental to, and not the purpose of the carrying out of an otherwise lawful activity."²⁴⁷ Upon an issuance of an ITP, the FWS continues to monitor a project for compliance with the terms of the HCP, and

^{240.} *Id.* at 568-9.

^{241.} *Id.*

^{242.} *Id.* at 569.

^{243.} *Id.*

^{244.} *Id.* at 545.

^{245.} *Id.*

^{246.} *Id.* at 581-583.

^{247.} *Id.* at 582-583.

the effectiveness of the permitted action and the conservation program.²⁴⁸⁸ FWS employs a “*No Surprises*” policy under the issuance of an ITP, which assures that it will not impose additional restrictions on the use of the natural resources or the implementation of mitigation measures beyond what is provided for in an HCP.²⁴⁹

ii. DEPARTMENT OF FISH AND WILDLIFE – VOLUNTARY GUIDELINES FOR LAND BASED WIND

In response to the implementation of modern wind power and the potential conflicts its use may have with the ESA and other similar acts, the Secretary of the Interior established the Wind Turbine Advisory Committee in March of 2007, to provide recommendations on the siting and operation of land based wind energy sites.²⁵⁰ In March of 2010, the Committee presented its final recommendations to the Secretary.²⁵¹ The FWS has now been given the task of reviewing and making further refinements to the Guidelines. The Guidelines are intended to be used voluntarily, and when followed are designed to allow developers of wind power to make the best possible siting decisions regarding the impact on wildlife.²⁵² The current Guidelines were finalized by the FWS on September 13, 2011, and are still in the public comment period. Following the comment period, the FWS has an opportunity to consider relevant commentary and make any applicable changes, and then the final Guidelines are published in the Federal Register.²⁵³ While not yet effective, these draft Guidelines are the product of multiple years, multiple drafts, and multiple agencies input, and are likely to mirror their final form. Thus, they

^{248.} *Id.* at 544-545.

^{249.} 16 U.S.C. 1539(a)(1)(B).

^{250.} DEPT. OF FISH & WILDLIFE, DRAFT VOLUNTARY LAND BASED WIND ENERGY GUIDELINES, Page 6 (proposed Sep. 13, 2011).

^{251.} *Id.* at 1.

^{252.} *Id.* at 2.

^{253.} *Id.* at Cover Sheet.

provide a strong indication of the future relationship between developers of land-based wind power and FWS.

The Guidelines are structured in a tiered system, designed is to refine the findings of previous tiers and build on them moving forward.²⁵⁴ In this instance, the process is used to identify and eliminate sites that pose significant environmental threats, highlight potential concerns on more viable sites, and adopt strategies to mitigate these risks during construction and through out the lifetime of the operation.²⁵⁵ The first tier is a preliminary evaluation of the site or sites proposed, and it involves a landscape assessment of the habitat for species of concern and compilation of existing data and resources on the site.²⁵⁶ The second tier is a characterization of the site, which takes the preliminary landscape assessment and evaluates the potential presence of species of concern, and effects on the surrounding habitat.²⁵⁷ This involves at least one reconnaissance level site visit by a biologist, who is looking for habitats and critical congregation areas, such as for mating or migration, which may be vital to one or more species of concern.²⁵⁸ Tier three requires the biological studies, based on the findings of the second study, to be conducted at and around the site during all times when species of concern may be present.²⁵⁹ This research is done while coordinating with the FWS to ensure that the best methods of study for the particular species are used.²⁶⁰ Tiers four and five are post-construction, and depend on the specific concerns of a given site, and the potential need for mitigation measures.²⁶¹ At every level of this tiered process, an interaction with the FWS is intended in

^{254.} DEPT. OF FISH & WILDLIFE, DRAFT VOLUNTARY LAND BASED WIND ENERGY GUIDELINES,

Page 6.

^{255.} *Id.*

^{256.} *Id.*

^{257.} *Id.*

^{258.} *Id.*

^{259.} *Id.*

^{260.} *Id.* at 14.

^{261.} *Id.*

order to achieve the goals of both organizations.²⁶² The involvement of the FWS, who has archives of information and vast experience, is designed to benefit to the developer by providing useful information concerning possible sites, and advise when further mitigation techniques or and ITP should be sought.²⁶³

In addition to the ESA, the Guidelines are an effort to ensure compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.²⁶⁴ While these guidelines are voluntary, they are strongly encouraged by the FWS, and voluntary adherence and communication with FWS may be used as evidence of due care with respect to avoiding impacts to protected species.²⁶⁵ Compliance with these Guidelines does not authorize any takes, nor grant a take permit, but compliance may be considered by the FWS when using its discretion in referring an entity for prosecution related to the death or injury of a protected species.²⁶⁶ Developers and operators of wind facilities are responsible for maintaining internal records, which demonstrate adherence to the guidelines, and responsiveness to communication with FWS.²⁶⁷

The Migratory Bird Treaty Act (MBTA) states, “[u]nless and except as permitted by regulations... it shall be unlawful at any time, by and means, or in any manner to pursue, hunt, take, capture, kill... any migratory bird, any part, nest, or eggs of any such bird...”²⁶⁸ The Act prohibits the taking killing possession, transportation, import and export of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior.²⁶⁹

The word “take” for the purposes of MBTA, is further defined by regulation as “to pursue, hunt

^{262.} *Id.*

^{263.} *Id.*

^{264.} *Id.* at 8.

^{265.} *Id.*

^{266.} *Id.*

^{267.} *Id.*

^{268.} 16 U.S.C. § 703.

^{269.} *Id.*

shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.”²⁷⁰ The MTBA is a strict liability statute, meaning that proof of any intent knowledge or negligence is not necessary for a violation, but requires only a “taking” of a protected species.²⁷¹ The FWS maintains a list of all species protected under the MBTA, which includes over one thousand species of migratory birds, including eagles and other raptors, waterfowl, shorebirds, seabirds, wading birds, and passerines, but does not protect introduced species, or non-migratory upland game birds.²⁷²

The Bald and Golden Eagle Protection Act (BGEPA) prohibits the taking of any bald or golden eagle, alive or dead, or any part, nest, or egg thereof.²⁷³ Under the BGEPA, a take is defined to include “pursue, shoot, shoot at, poison, wound, kill capture, trap, collect, molest, or disturb,” and the FWS has further defined “disturb” as “agitating or bothering an eagle to a degree that causes, or is likely to cause, injury, or either a decrease in productivity or nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior.”²⁷⁴ Both criminal and civil penalties may be sought for the violation of the BGESA.²⁷⁵

Under both the ESA and BGESA, permits may be obtained which would protect the permitted entity from partial or full enforcement actions.²⁷⁶ In 2009 the FWS promulgated rules which authorize the issuance of an incidental take permit for limited, non-purposeful, take of eagles when engaging in otherwise legal actions such as the operation of utilities and airports.²⁷⁷ Most of the permits issued under this act allow only for the disturbance of eagles, but in limited

^{270.} 50 C.F.R. 10.12.

^{271.} DEPT. OF FISH & WILDLIFE, DRAFT VOLUNTARY LAND BASED WIND ENERGY GUIDELINES, Page 9.

^{272.} 50 C.F.R. 10.13.

^{273.} 16 U.S.C. 668.

^{274.} 50 C.F.R. 22.3.

^{275.} DEPT. OF FISH & WILDLIFE, DRAFT VOLUNTARY LAND BASED WIND ENERGY GUIDELINES, Page 10.

^{276.} *Id.* at 10-12.

^{277.} 50 C.F.R. 22.2 & 22.27.

cases a permit may authorize the take of eagles resulting in injury or death.²⁷⁸ In addition to applying for an incidental take permit, as in the Beech Ridge case, the ESA also authorizes ITPs through a formal consultation under section 7(a)(1)(b) of the ESA, whenever a federal agency, federal funding, or a federal permit is involved.²⁷⁹

In conclusion, the decision of a wind developer to utilize the guidelines offered by the FWS presents an opportunity to not only ensure that the fewest possible negative effects are created by the siting and operation of a wind turbine, but also take considerable steps to insulate a developer from the potential liability associated with failing to comply with the ESA, MBTA, and GBEPA. While these regulations are voluntary, as Beech Ridge demonstrated, a developer should still take similar steps to ensure that he is in compliance with these acts. Thus, adherence to the voluntary guidelines will result in taking advantage of the experience of the FSA, and will reduce the risk of litigation and penalties associated with noncompliance.

b. ZONING AND NUISANCE ISSUES

Individual city and town zoning ordinances may impact potential wind energy sites, including a full moratorium on their use, but several issues are present on the federal and state levels impacting all siting. The Federal Aviation Administration (FAA) has jurisdiction over most large wind turbines, because of their height, and requires permitting and clearance before construction may begin.²⁸⁰ Additionally, even when all zoning regulations are met, citizens who claim to be adversely affected by the presence of a wind turbine may seek to bring a nuisance action to enjoin, or stop, the operation of the turbine.²⁸¹ The effect of such an injunction being

²⁷⁸. DEPT. OF FISH & WILDLIFE, DRAFT VOLUNTARY LAND BASED WIND ENERGY GUIDELINES, Page 10.

²⁷⁹. 16 U.S.C § 1527(a)(1)(b). This process may include wind turbines who receive federal funding pursuant to the incentives mentioned above.

²⁸⁰ 14 C.F.R § 77.9(a) (2010).

²⁸¹ R.I Gen. Laws § 10-1-1.

granted may diminish or destroy the energy and financial benefits associated with investing in a wind turbine. The Environmental Protection Act has federal standards associated with noise, but these have not been shown to affect wind development, rather the applicable source for noise standards will come from the particular local regulations in the area where the turbine is to be sited.²⁸² These should be considered prior to construction.

i. FEDERAL AVIATION ADMINISTRATION ZONING RESTRICTIONS

The FAA has legal jurisdiction over structures two hundred (200) feet tall and greater, as well as areas surrounding airports.²⁸³ Utility scale turbines can be at least twice that height when including the top of the rotor blade. Thus, developers must conform to FAA regulations in their siting. Developers are required to submit proposed projects to the FAA, and the FAA allows for comments from interested parties before a decision is made. Following a decision, the developer may appeal the decision, but without FAA clearance no turbines falling within FAA jurisdiction may be constructed.²⁸⁴ In addition to receiving clearance to construct in a particular area, the proposed project must conform with any lighting requirements imposed by the FAA.²⁸⁵

In order to apply for clearance with the FAA, developers must submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, for each proposed turbine.²⁸⁶ This form may be downloaded and submitted on the FAA website.²⁸⁷ In the event a proposed wind turbine does not exceed 200 feet, an FAA application may still be required if any construction is proposed within the vicinity of an airport.²⁸⁸ The distance requirement increases with the size of the

²⁸² 42 U.S.C. § 7641 (2007).

²⁸³ 14 C.F.R § 77.9(a).

²⁸⁴ *Id.*

²⁸⁵ *Id.* at. § 77.4(a).

²⁸⁶ *Id.* at. § 77.5(c)(3).

²⁸⁷ *Id.*

²⁸⁸ *Id.*

airport, and may be as far as 3.8 miles when the longest runway is longer than 3,200 feet, such as in the case of T.F. Green International Airport.²⁸⁹

When assessing a proposed project, the FAA will notify other federal agencies with radar assets, such as the Department of Defense, the Department of Homeland Security, and the National Oceanic and Atmospheric Administration.²⁹⁰ These agencies are given an opportunity to raise objections, which may be a basis for the Determination of a Presumed Hazard.²⁹¹ In the event that the FAA issues a Determination of Presumed Hazard, a process of negotiation and appeal may be initiated. In the inverse, a Determination of No Hazard may be issued, which would allow construction to begin.²⁹² The FAA website provides detailed mapping of wind turbine build outs and other information about currently regulated structures in an area, along with guidance as to the FAA's view of the instillation in light of hazards to aeronautical navigation.²⁹³

In conclusion, early inquiry into the FAA concerns surrounding a potential wind turbine site, such as the resources on the FAA website may prove to be the best procedure in order to avoid excess expense in locating a new site.²⁹⁴ Often FAA clearance is one of the final hurdles in siting, due to concerns about prematurely releasing proprietary information to the public, but without such clearance the construction of a utility-scale turbine is impossible.²⁹⁵

ii. NUISANCE ACTION AGAINST A WIND TURBINE

²⁸⁹ A structure, regardless of height must apply with the FAA when construction is within 20,000 ft of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 ft, within 10,000 ft of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft, or within 5,000 ft of a public use heliport which exceeds a 25:1 surface *Id.* at. § 77.9(b).

²⁹⁰ *Id.* at. § 77.5(c)(5).

²⁹¹ *Id.* at. § 77.31.

²⁹² *Id.*

²⁹³ Federal Aviation Administration, *Wind Turbine Build Out*, (November 10, 2011, 9:45 P.M.) <https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showWtBuildOutToolForm>.

²⁹⁴ *Id.*

²⁹⁵ R.I Gen. Laws § 10-1-1.

A developer of a wind turbine must consider other citizens when placing a turbine. While few nuisance actions have been successful against turbine owners or operators, the reality of an injunction limiting or prevention a constructed turbine from operations presents an expensive consequence to if it were to occur.

Under Rhode Island law, whenever a nuisance is alleged to exist, an action may be brought by any citizen of the state, or the Attorney General.²⁹⁶ The action may be brought for the issuance of an injunction against any persons maintaining or permitting the nuisance either directly or indirectly.²⁹⁷ The complaint must contain the names of the parties, the object of the action, a description of the place complained of, and a statement of the facts constituting the alleged nuisance, and be sworn by the complaining party.²⁹⁸

Liability for nuisance is imposed only in cases in which the particular harm to the complainant is greater than he ought to bear under the circumstances.²⁹⁹ Noise alone can be a nuisance only if it unreasonably interferes with a person's use and enjoyment of his property.³⁰⁰ An action against a wind turbine could be brought as a private nuisance, alleging that its operation impairs the use and enjoyment of the complainants land, or may be brought as a public nuisance, alleging that the turbine is injurious to public health or safety.³⁰¹ Mere aesthetic displeasure generally does not constitute a nuisance. The burden of proving that a nuisance falls on the party alleging it, who must demonstrate both the existence of the nuisance and that injury has resulted from the nuisance complained of.³⁰²

^{296.} *Id.*

^{297.} *Id.*

^{298.} *Id.*

^{299.} Citizens for Preservation of Waterman Lake v. Davis, 420 A.2d (R.I. 1980)

^{300.} *Id.* at 14.

^{301.} *Id.*

^{302.} *Id.* at 15.

Currently, there have been no nuisance actions brought against a wind turbine in Rhode Island, and very few have been successful in other states. In 1982, a New Jersey plaintiff was able to demonstrate that a sixty-foot turbine, located approximately 10 feet from her home, significantly impaired her ability to sleep, read, watch television and otherwise enjoy her property.³⁰³ The turbine at issue, unlike most modern turbines, was producing noise levels that exceeded the decibel level of the local noise ordinance.³⁰⁴ Few other residential claims have proven successful in establishing a nuisance where the turbine was not otherwise in violation of a noise statute.³⁰⁵ Similarly, courts in other states have found that claims against a wind turbine based purely on aesthetics, or based on safety concerns without any actual showing of danger, do not rise to the level of being a nuisance.³⁰⁶ Finally, the issue of shadow flicker, a unique strobe effect occurring in homes near a turbine during particular times of year, has been seldom brought as a nuisance, and where it has been alleged it has not been successful or the case was settled.

Thus, while few courts have been willing to find a nuisance to exist in a wind turbine, such an action is not impossible. Due to the potential loss associated with rendering a constructed turbine non-operational or limiting its use should encourage a developer to consider a location chosen to minimize residual impacts and provide the best protection from liability.

CONCLUSION

Rhode Island will continue to utilize wind power. It is the most widely available renewable energy resources in the state, and, in order to meet our Renewable Energy Standard, the creation of new facilities is certain. Before engaging in a new wind energy project, a

³⁰³. Rose v. Chaiken, 453 A.2d 1378 (N.J. 1982).

³⁰⁴. *Id.*

³⁰⁵. See Rassier v. Houim, 488 N.W.2d 635 (N.D. 1992).

³⁰⁶. See Rassier v. Houim, 488 N.W.2d 635 (N.D. 1992); Dale Rankin, et al. v. FPL Energy, et al. 266 S.W.3d 506 (2008).

developer, at any scale, must decide whether net metering, or a distributed generation contract, would be most practical for selling all or a portion of the resources produced for the particular application. If the latter is determined to be more beneficial, the developer will need to determine whether a long or short term contract would be most economically advantageous. Developers should consider all state programs available to provide grants, loans, and tax credits to offset the cost of constructing a new wind facility. While less consistently available, federal programs, which can be combined with Rhode Island's incentives, must also be sought. In order to produce energy and certificates marketable to electricity distribution companies for compliance with the Standard, proposed sites must be certified by the Commission. This may be done before any investment in development by seeking a declaratory judgment.

The benefits Rhode Island wind developers are offered must be weighed against the cost of implementing this program. This can first be examined by determining the actual cost of connecting the system to the distribution grid. Compliance and early cooperation with the Fish and Wildlife Service should be considered early in development to avoid adverse impacts on the environment. Early coordination with the Federal Aviation Administration also ensures that federal interests will not preempt a particular sites development. Finally, while local zoning regulations will provide specialized rules for the development of wind turbines and prevent most nuisance actions, developers must keep in mind the potential for nuisance, and use discretion in choosing sites to create minimal human impacts.