



NJCEP Renewable Energy Incentive Program

Pre-Application for Wind Equipment Incentives (EPBB or IWTI)

Please carefully read all of the following information. With the help of your installation contractor, fully complete Sections A through D as applicable, of this Pre-Application for Wind Equipment Incentives.

GENERAL TERMS AND CONDITIONS

Rebates will be processed based on the date *New Jersey's Clean Energy Program*[™] (NJCEP) approves the Final Paperwork Packet, not on the purchase date of the equipment. Program procedures and rebates are subject to change or cancellation without notice. To qualify for a rebate, the applicant must comply with all Renewable Energy Incentive Program (REIP) eligibility requirements, terms and conditions, and installation requirements, and submit all completed forms. For more information about NJCEP or for assistance in completing applications or forms, please see NJCleanEnergy.com or call 866-NJSMART.

The [Pre-Application Wind Worksheet](#) is an evaluation tool for interested applicants and is used to help determine the site's wind potential and estimate the wind REIP rebate. The Pre-Application Wind Worksheet collects site specific wind resource and turbine equipment data proposed for installation at the site. The rebate calculation is determined using a NJCEP licensed calculation tool that is not publicly available. The rebate will be calculated by the program administrators.

If the proposed turbine is not listed among the approved turbines on page 2, applicants can participate in the program through the [Innovative Wind Technology Incentive \(IWTI\)](#).

INSTALLATION REQUIREMENTS

Equipment installation must meet the following minimum requirements in order to qualify for a rebate. These requirements are not all-encompassing and are intended only to address certain minimum safety and efficiency standards.

A: CODE REQUIREMENTS

1. The installation must comply with the provisions of the National Electrical Code and all other applicable local, state and federal codes or practices.
2. All required permits must be properly obtained and posted.
3. The NJCEP inspection must be performed before the inspection by the local Building Code enforcement office. If not, this may delay the processing of the rebate.
4. All required inspections must be performed (i.e., Electrical/NEC, Local Building Codes, etc.). Note: In order to ensure compliance with provisions of the NEC, an inspection by a state-licensed electrical inspector is mandatory.

B: WIND, TURBINE, ANEMOMETER, and TOWER

1. Approved turbines listed in this pre-application will be accepted for rebate. Applicants can participate in the program through the [Innovative Wind Technology Incentive](#).
2. All wiring must conform to the National Electric Code. Overcurrent protection must be provided in accordance with the provisions of the NEC.
3. The wind turbine tower must be well-grounded and bonded in accordance with the provisions of the NEC and any other applicable codes.
4. Appropriate lightning protection and surge suppression must be installed in accordance with the provisions of the NEC and any other applicable codes.
5. An anemometer must be installed as an integrated component of wind energy generating system one rotor length below the swept area of the turbine facing the direction of the predominant wind at the turbine location.
6. The output of the anemometer will have a data logger system that can be accessed to show instantaneous and average wind speed.
7. The data logger output can be transmitted either by card reader, a dedicated land line or web based system that can provide reporting information on the system.

C: INVERTER and CONTROLS

1. The inverter and controls must be properly installed according to manufacturer's instructions.
2. The inverter must be certified as compliant with the requirements of IEEE 929 (including anti-islanding) and with UL 1741.
3. The system should be equipped with the following visual indicators and/or controls:
 - On/off switch
 - Operating mode setting indicator
 - Operating status indicator
 - AC/DC overcurrent protection
4. Warning labels must be posted on the control panels and junction boxes indicating that the circuits are energized by an alternate power source independent of utility-provided power.
5. Operating instructions must be posted on or near the system, or on file with facilities operation and maintenance documents.



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6. Systems must have monitoring capability that is readily accessible to the owner. This monitor (meter or display) must at minimum display instantaneous and cumulative production.

D: CONTROL PANEL to WIND TURBINE WIRE RUNS

1. Areas where wiring passes through ceilings, walls or other areas of the building must be properly restored, booted and sealed.
2. All interconnecting wires must be copper. (Some provisions may be made for aluminum wiring; approval must be received from utility engineering departments prior to acceptance.)
3. Thermal insulation in areas where wiring is installed must be replaced to "as found or better condition." Access doors to these areas must be properly sealed and gasketed.
4. Wiring connections must be properly made, insulated and weather-protected.
5. All wiring must be attached to the system components by the use of strain reliefs or cable clamps, unless enclosed in conduit.
6. All outside wiring must be rated for wet conditions and/or encased in liquid-tight conduit.
7. Insulation on any wiring located in areas with potential high ambient temperature must be rated at 90° C or higher.
8. All wiring splices must be contained in UL-approved workboxes.

E: BATTERIES (if Applicable)

1. The batteries must be installed according to the manufacturer's instructions.
2. Battery terminals must be adequately protected from accidental contact.
3. DC-rated overcurrent protection must be provided in accordance with the provisions of the NEC.

APPROVED TURBINES for EPBB REBATES*

| MANUFACTURER | MODEL | NAMEPLATE CAPACITY (kW) | MANUFACTURER | MODEL | NAMEPLATE CAPACITY (kW) |
|---------------------------|-------------------|-------------------------|---------------------------------|----------------------|-------------------------|
| Abundant renewable energy | ARE 110 | 2.5 | GE Energy | GE 1.6 xle | 1600 |
| Abundant renewable energy | ARE 442 | 10 | Northern Power Systems | North Wind 100 (21m) | 100 |
| Aerostar | 6 meter | 10 | Proven Engineering | WT6000 | 6 |
| Bergey Windpower | BWC XL.1 | 1.0 | Proven Engineering | WT15000 | 15 |
| Bergey Windpower | BWC EXCEL - S | 10 | Southwest Windpower | Skystream | 2.4 |
| Endurance Wind Power | S-343 | 5 | Cascade Engineering | Swift | 1.5 |
| Endurance Wind Power | G-3120 | 35 | Turbowinds | T400-34 | 400 |
| Endurance Wind Power | E-3120 | 50 | Wind Energy Solutions | Tulipo | 2.5 |
| Enertech | E-44 | 40 | Wind Energy Solutions | WES 18 | 80 |
| Entegrity Wind Systems | EW15 | 50 | Wind Energy Solutions | WES 30 | 250 |
| GAIA Wind | 11kW | 11 | Wind Turbine Industries (Jacob) | 26-15 | 15 |
| GE Energy | GE-1.5 sl/sle/xle | 1500 | Wind Turbine Industries (Jacob) | 31-20 | 20 |

*Applicants for IWTI incentives must include with the Pre-Application package a 3rd party certified power curve when using a turbine that is not on the approved list for EPBB incentives for consideration by the program administrators. The IWTI incentive will be based on the expected performance of the modeled system and paid upon actual documented production from the system. For more information on the [Innovative Wind Technology Incentive](#).



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A: SITE HOST CONTACT INFORMATION

| | |
|------------------------|------------------------|
| Applicant Name: _____ | Installer Name: _____ |
| Mailing Address: _____ | Mailing Address: _____ |
| City, State Zip: _____ | City, State Zip: _____ |
| Phone number: _____ | Phone number: _____ |
| E-mail Address: _____ | E-mail Address: _____ |

Installed Address: _____
City, State Zip: _____

Customer type: Residential Commercial Farm Non-Profit
 Has this customer applied for any other renewable energy incentives from the NJCEP? YES NO

B: EQUIPMENT INFORMATION

1. Wind Turbine Manufacturer: _____ Turbine Model Number: _____
 2. Wind Turbine Power Output: _____ AC Watts or _____ DC Watts (Peak output at 11 m/s): _____
 3. Number of Turbines: _____
 4. Inverter Manufacturer: _____ Inverter Model Number: _____
 5. Will this project participate in the Innovative Wind Incentive Program? Yes No

C: PROPOSED INSTALLATION/INTERCONNECTION INFORMATION

1. Wind Turbine Location: Latitude _____ Longitude _____
 2. Average Annual Wind Speed at 50 meters:
Average annual wind speed at 50 meters using the free NASA windmap:
<http://eosweb.larc.nasa.gov/cgi-bin/sse/grid.cgi> _____ m/s

If available, include at least one of the two fee-based wind resource maps listed below: (The wind REIP program uses the average of the wind speed results from each wind map). If only the NASA wind map is provided, the wind speed will be reduced to reflect a more realistic result when using only one wind map and consequently will result in a lower rebate incentive.
<http://www.3tier.com/firstlook/> _____ m/s
<https://www.windnavigator.com/cms/> _____ m/s

3. Proposed Wind Turbine Rotor Hub Height: _____ feet, or _____ meters
 4. Proposed wind turbine blade length: _____ in feet
 5. Is this system to be self installed? Yes No

D: SYSTEM COST INFORMATION

1. Total Installed System Cost: \$ _____
 (Installed system cost includes all equipment, installation, and applicable interconnection costs before the NJCEP incentive.)

Applicants must supply cost information that is accurate and current as of the application date. Current cost data will also be required with any revised worksheets submitted.. Cost can be submitted for protection under OPRA by following the Board's procedures found at www.nj.gov/bpu.

E: INCENTIVE REQUEST CALCULATION ***For NJCEP program Administrator Use***

Incentives are based on estimated annual energy production (in kWh) for the proposed turbine at the specific site and hub height. Incentive calculation will be done in conjunction with program staff. The Innovative Wind Technology Incentives are calculated on estimated annual energy production and will be paid quarterly for the first year based upon actual energy production documented by the installer. **Rebate funds are not committed until a full application is deemed complete and the applicant is supplied an approval letter.**

1. Incentive Calculation: **Residential systems are capped at a maximum 16,000 kWh**

a. (0-16,000 kWh/year estimated annual output) _____ X \$3.20/kWh = \$ _____
 b. (16,000 to 1,000,000 kWh/year est. annual output) = (_____ -16,000 kWh) X \$0.50/kWh + \$51,200 = \$ _____

2. **Requested Incentive** (Enter the appropriate value from E.1. a or b): \$ _____