

Wind Energy System Rules and Regulations

Authority

Consistent with the mandate of the Virgin Islands Building Code, 29 V.I. CODE ANN. SEC. 292 (a), and pursuant to 29 V.I. CODE ANN. SEC. 312 (3) these Rules and Regulations are implemented as hereby and herein provided.

312 (3) – 1: Title

These regulations may be referred to as Wind Energy System Rules and Regulations.

312 (3) – 2: Purpose

It is the purpose of these regulations to promote the effective and efficient use of the US Virgin Islands' wind power resources through the installation of wind energy systems to reduce on-site consumption of utility supplied electricity or to produce power for sale while balancing the necessity to protect the public health, safety and welfare of the community.

312 (3) – 3: Definitions

Unless it is otherwise provided or the context requires a different construction, the following terms when used in these regulations shall have the meaning as herein defined:

- (a) "Building Permit" means an official certificate of permission issued by the Commissioner for the erection, construction, reconstruction, enlargement, or alteration of a building or structure.
- (b) "Commissioner" means the Commissioner of the Department of Planning and Natural Resources (*DPNR*) and his or her designee.
- (c) "Division" means The Department of Planning and Natural Resources' Division of Building Permits.
- (d) "FAA" means Federal Aviation Administration.
- (e) "Meteorological tower" (*met tower*) is defined to include the tower, base plate, anchors, guy cables and hardware, anemometers (*wind speed indicators*), wind direction vanes, booms to hold equipment anemometers and vanes, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location.
- (f) "Owner" means any person or legal entity, which owns, leases, operates, controls, or supervises a wireless support structure.
- (g) "Small wind energy system" means a wind energy system that has a nameplate capacity of 100 kilowatts or less, has a height of less than 200 feet or limited by FAA regulations, and is primarily used to generate energy for use by its owner.

- (h) "Total height" means the vertical distance from ground level to the tip of a wind turbine blade when the tip is at its highest point.
- (i) "Tower" means either the freestanding, guyed, or monopole structure that supports a wind turbine or the freestanding, guyed, or monopole structure that is used as a met tower.
- (j) "Utility Scale Wind Energy System" means a wind energy conversion system consisting of a wind turbine or group of wind turbines, tower, and associated control or conversion electronics, which has rated capacity of more than 100 kW.
- (k) "Wind energy system" means equipment that converts and then stores or transfers energy from the wind into usable forms of energy and includes any base, blade, foundation, turbine, nacelle, rotor, tower, transformer, turbine, vane, wire, or other component used in the system.
- (l) "Wind turbine" means the mechanical and electrical conversion components mounted at the top of a tower in a wind energy system.

312 (3) – 4: Design Requirements

- (a) Small wind energy systems shall be a permitted use in all zoning districts with the exception of historically certified areas, subject to the following requirements:

- (1) Total Height: The total height of the wind energy system shall not exceed 100 feet in height in the low density residential districts. In all other districts, the wind energy system is limited to 200 feet or less.
- (2) Setback: Small Wind Energy Systems shall be setback 1.2 times the total height of the wind energy system from the property line of the property upon which the system is to be installed.
- (3) Noise: Small wind energy systems shall not exceed 60 decibels, as measured at the property lines of the site in question. The level, however, may be exceeded during short-term events such as utility outages.
- (4) Maximum Number of Towers: The maximum number of wind energy systems on any one parcel shall be one (1) in the low density residential districts. In all other districts, the maximum number of wind energy systems shall be limited based on the usage capacity of the subject development.
- (5) Met Towers: Met towers shall be permitted under the same standards, permit requirements, restoration requirements, and permit procedures as a small wind energy system.

- (b) A utility scale wind energy system shall be permitted, subject to the following requirements:

- (1) Total Height: The total height of the wind energy system shall be limited by the FAA.
- (2) Minimum Lot/Plot Size: 2 Acres
- (3) Setbacks: A tower in a utility scale wind energy system must be setback:

(a) At least 1.25 times its total height from the property line of the property upon which the system is to be installed; and

(b) A tower in a utility scale wind energy system must be setback at least 1.25 times its total height from any overhead utility power line.

(4) **Noise:** Utility scale wind energy systems shall not exceed the lesser of 60 decibels or 5 decibels above the background noise level, as measured at the property lines of the site in question. The owner can apply for a special exemption up to 80 decibels in the event that the operator exceeds the 60 decibel noise limitation due to the applicant demonstrating need, number, and/or size of turbines on the parcel.

(5) **Utility Inter-Connection:** No utility scale wind energy system shall be installed that does not meet the requirements of the utility company for an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.

Comment [L.L1]: This needs clarification. The 2 sentences conflict.

(c) Both small and utility scale wind energy systems shall be subjected to the following additional requirements:

(1) **Blade Clearance:** The vertical distance from ground level to the tip of a wind turbine blade when the blade is at its lowest point must be at least 15 feet.

(2) **Electrical Wires:** All electrical wires associated with a wind energy system shall be located underground, except wires necessary to connect the wind turbine to the tower wiring, the tower wiring to the disconnect junction box, and the grounding wires.

(3) **Lighting:** Tower(s) and turbine(s) shall not be artificially lighted unless such lighting is required by the FAA.

(4) **Appearance, Color, and Finish:** The wind turbine and tower shall remain painted or finished the color or finish that was originally applied by the manufacturer, unless approved by the turbine manufacturer, or specified by the FAA.

(5) **Signs:** All signs shall be prohibited, except the manufacturer's or installer's identification, appropriate warning, or owner identification on a wind turbine, tower, building, or other structure associated with a wind energy system.

(6) **Compliance with FAA Regulations:** Wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports or seaplane bases.

(7) **Climbing Access:** To limit climbing access, a fence six feet high with a locking portal shall be placed around the tower base or the tower climbing apparatus shall be limited to no lower than 12 feet from the ground.

312 (3) – 5: Application Requirements

No installation or construction of a wind energy system shall commence before the issuance of a building permit by the Division.

- (a) Prior to submitting an application for a building permit, an applicant shall participate in a pre-application meeting with the Virgin Islands Energy Office (“VIEO”) and as proof, the applicant shall receive a Pre-Application Letter from the VIEO to submit with the building permit application.
- (b) Prior to the issuance of a building permit, an applicant shall submit a completed Wind Energy System Application, including a general statement of the proposed work, with the following appropriate accompanying documents:
- (1) Names and Mailing Addresses of the owner of the wind energy system, owner of plot, and applicant;
 - (2) Names and addresses of all Virgin Islands licensed engineers, architects, or contractors who will supervise the work and the names and addresses of all subcontractors who will perform the work;
 - (3) Receipt from the Department showing that a non-refundable deposit of \$40.00 has been paid on the permit fee;
 - (4) When the estimated value of the proposed construction exceeds \$1000 the application forms shall be accompanied by two (2) sets of plans and specifications;
 - (5) A site plan for the tower to include line drawings to comply with the National Electrical Code, drawn to scale showing the property’s boundaries; the location, to include Plot number, Estate, and Quarter; height and dimensions of existing and proposed buildings or structures on the same and on adjoining lots, adjacent streets or roads, natural or manmade features, topography, fencing, lighting, and landscaping plan;
 - (6) A Clearance Letter from the State Historic Preservation Office (SHPO);
 - (7) An indigenous species permit is required from the Division of Fish and Wildlife.
 - (8) An Earth Change Permit if located in Tier 2 or Coastal Zone Management Permit if located in Tier 1;
 - (9) Clearance letter from the FAA, if wind energy system is within 20,000 feet of an airport or seaplane base;
 - (10) Current Virgin Islands business license, if applicable;
 - (11) Corporate Resolution showing or indicating that applicant has the authority to act on behalf of legal entity; and
 - (12) WAPA (when applicable to a utility scale wind energy system).

Comment [L.L2]: What is needed? Is it a clearance letter or a permit from WAPA?

312 (3) – 6: Abandonment and Expiration

(a) A wind energy system that is out-of-service for a continuous 12 month period will be deemed to have been abandoned. The Commissioner may issue a Notice of Abandonment to the owner of a wind energy system that is deemed to have been abandoned. The Owner shall have the right to respond to the Notice of Abandonment within 30 days from Notice receipt date. The Commissioner shall withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn if the owner provides information that demonstrates the wind energy system has not been abandoned.

(b) If the wind energy system is determined to be abandoned, the owner shall remove the wind energy system at the Owner's sole expense within 3 months of receipt of Notice of Abandonment. If the owner fails to remove the wind energy system, the Commissioner may pursue a legal action to have the wind energy system removed at the Owner's expense.

(c) Expiration. A permit issued shall expire if:

- (1) Construction has not started within 12 months from the date the permit is issued;
- (2) The wind energy system is not installed or functioning within 12 months from the date the permit is issued;
- (3) The wind energy system is out of service or otherwise unused for a continuous 12 month period.

312 (3) – 7: Violations

It is unlawful for any owner to construct, install, or operate a wind energy system without a permit issued by the Commissioner in compliance with these regulations.

312 (3) – 8: Existing Systems

Existing systems are exempt from these regulations except sections 312 (3) – 6, 312 (3) – 9 and in the case of utility-scale wind energy systems section 312 (3) – 10.

312 (3) – 9: Inspections and Record Keeping

The Owner of any Wind Energy System shall:

- (a) Conduct routine visual site inspections and take the necessary precaution to prevent back feed into the WAPA grid, to reduce electrical damage to the system by inspecting wiring, and to follow the manufacturer's recommendations for maintenance of the system in order to prevent damage and insure the system's proper use.
- (b) Conduct inspections of the wind energy system every ten (10) years to ensure its structural integrity and continuing compliance with these regulations and to submit for approval a Certified Maintenance Inspection Report from a VI licensed structural engineer to the Division documenting the findings of the inspection. If applicable, the report shall contain a compliance schedule detailing the required maintenance.
- (c) Conduct inspections of the wind energy system, within three (3) months after any declared natural disaster (such as hurricanes or earthquakes) to ensure the structural integrity of the wind energy system and to submit for approval a Certified Maintenance Inspection Report from a VI

licensed structural engineer to the Division documenting the findings of the inspection. If applicable, the report shall contain a compliance schedule detailing the required maintenance. The Commissioner shall grant a reasonable extension for the submission pursuant to this subsection upon a showing of good cause. .

- (d) Maintain a record of animals incidentally taken by the operation of the wind energy system. This record shall be made available to the Division of Fish and Wildlife upon request.

312 (3) – 10: Utility-Scale Wind Energy System Bonding and Security Insurance

An applicant for a utility scale wind energy system shall provide:

- (a) A bond indexed to inflation/deflation to the Government of the Virgin Islands on behalf of the Department in an amount that would be sufficient to cover the costs of removal and disposal of the utility scale wind energy system. The Department shall set the form and amount of the security. The Department shall also require the applicant to submit proof of general liability insurance (minimum single limit amount of One Million Dollars).
- (b) The term of the bond shall be negotiated with the Department. In addition, if the Department requires an engineering assessment in order to set the amount of the bond, the cost shall be borne by the applicant.

312 (3) – 11: Aesthetic Impact

A wind energy system shall not have an unreasonably undue adverse aesthetic impact. The Wind energy system shall be designed and located to minimize adverse visual impacts to the greatest extent feasible. The design and location shall not interfere with the efficient performance of the system. In determining whether a wind energy system has an unreasonable undue adverse aesthetic impact, the Division shall consider the following factors:

- (a) The extent to which the proposed wind energy system has been designed to conceal or blend into the surrounding environment through the use of screening (e.g. hedging) camouflage (e.g. color), architectural design, and/or imitation of natural features.
- (b) The degree to which the overall height of the wind energy system will be concealed or screened by existing vegetation, topography, or existing structures.

312 (3) – 12: Public Hearings

Upon receipt of a completed application for the construction of a wind energy system and all required documentation, the Department shall hold a public hearing on the application for a wind energy system, no later than sixty (60) days after the application has been deemed complete. The applicant shall pay any and all fees associated with the conduct of a public hearing on any aspect of his/her application relating to a wind turbine.

Public notice of any hearing as required by these rules and regulations to be conducted by the Division of Comprehensive and Coastal Zone Planning shall be deemed to have been given when:

(a) General Procedures for Public Hearings for Small Wind Energy System

- (1) The applicant, as well as the owners of any and all lot(s) within five hundred (500) feet of the proposed wind energy system shall be notified by certified mail of the general purpose of the hearing and the time and place thereof at least fifteen (15) days prior to the date of the hearing; and have been invited to give testimony; and
- (2) A notice setting forth the general purpose of such hearing and the time and place thereof has been posted on the property in question, as well as on the Department's website.

(b) General Procedures for Public Hearings for Utility Scale Wind Energy System

- (1) A notice setting forth the general purpose of any such hearing and the time and place thereof shall have been published in a newspaper of general circulation in the island district of the proposed wind energy system at least twice at intervals of not less than two (2) days; the first not more than fifteen (15) days nor less than ten (10) days, and the last not less than two (2) days before such hearing;
- (3) The applicant, as well as the owners of any and all lot(s) within five hundred (500) feet of the proposed wind energy system shall be notified by certified mail of the general purpose of the hearing and the time and place thereof at least fifteen (15) days prior to the date of the hearing; and have been invited to give testimony; and
- (4) A notice setting forth the general purpose of such hearing and the time and place thereof has been posted on the property in question, as well as on the Department's website.

(c) Transcription of Testimony for Wind Energy System

In hearings before the Department, all testimony, objections thereto, and ruling thereon shall be transcribed by a stenographer employed by the Department for that purpose or recorded by a recording machine set up for that purpose.

(d) Report with Recommendation

The Division of Comprehensive and Coastal Zone Planning after due public notice and hearing shall transmit to the Commissioner a report containing its recommendation on the proposed application within thirty (30) days of the public hearing date.