



Town of Southern Shores
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LDA 2009-10-01

**WIND ENERGY FACILITY ORDINANCE
AMENDING THE ZONING ORDINANCE
OF THE TOWN OF SOUTHERN SHORES**

ARTICLE I. Purpose(s) and Authority.

WHEREAS, the Town of Southern Shores (the “Town”) may enact and amend ordinances to protect the health, safety, and welfare of its citizens under North Carolina General Statutes § 160A-174; and

WHEREAS, the Town may enact and amend ordinances regulating the zoning and development of land within its jurisdiction under North Carolina General Statutes § 160A-381; and

WHEREAS, the Town may regulate the use and construction of wind energy facilities within its jurisdiction under North Carolina General Statutes §§ 160A-400.50 – 400.53; and

WHEREAS, the Town Council for the Town of Southern Shores (the “Town Council”) finds that wind energy facilities are an integral part of today’s society and will continue to be an integral part of society including the lives of the citizens of the Town; and

WHEREAS, the Town Council further finds that wind energy facilities may potentially endanger the citizens and visitors of the Town or damage the aesthetics and historical nature of the Town unless regulated; and

WHEREAS, the Town Council finds that it is in the interest of the public's health, safety, morals and general welfare that the Town’s Zoning Ordinance be amended as stated below.

ARTICLE II. Construction.

For purposes of this Ordinance, underlined words (underline) shall be considered as additions to existing Town Code language and strikethrough words (~~strikethrough~~) shall be considered deletions to existing language. Any portions of the adopted Town Code which are not repeated herein, but are instead replaced by a “...” shall remain as they currently exist within the Town Code.

ARTICLE III. Amendment of Zoning Ordinance.

NOW, THEREFORE, BE IT ORDAINED by the Town Council that the Town’s Code of Ordinances shall be amended as follows:

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PART I. That Chapter 36 Section 36-170 be amended as follows:

Sec. 36-170. Electrical and communication service.

All electrical, telephone and TV distribution lines and all conduits used for the distribution of such signals, located within the town, shall be placed underground from the point of separation from the transmission or trunk line to the structure of the ultimate user. Existing distribution lines that are in place overhead on the effective date of this regulation may be extended only if placed underground. Transformers and enclosures containing switches, meters, capacitors, etc., may be pad mounted as an exception to the aforementioned. ~~Windmills and wind driven generators used for the generation of electric power are prohibited in all zoning districts.~~

PART II. That Chapter 36 Section 36-202 RS-1 single-family residential district be amended as follows:

(b) *Permitted uses.* The following uses shall be permitted by right:

(10) Wind Energy Facility, Small in compliance with the requirements of Section 36-176.

(11) Wind Energy Facility, Rooftop in compliance with the requirements of Section 36-176.

(c) *Conditional uses permitted.* The following uses are permitted subject to the requirements of this district and such additional regulations and requirements as may be imposed by the town council as provided in article X of this chapter:

(7) Wind Energy Facility, Medium in compliance with the requirements and conditions of Section 36-176.

(8) Wind Energy Facility, Large in compliance with the requirements and conditions of Section 36-176.

PART III. That Chapter 36 Section 36-203 RS-8 multifamily residential district be amended as follows:

(b) *Permitted uses.* The following uses shall be permitted by right:

...
(15) Wind Energy Facility, Small in compliance with the requirements of Section 36-176.

(16) Wind Energy Facility, Rooftop in compliance with the requirements of Section 36-176.

(c) *Conditional uses permitted.* The following uses are permitted subject to the requirements of this district and such additional regulations and requirements as may be imposed by the town council as provided in article X of this chapter:

...
(5) Wind Energy Facility, Medium in compliance with the requirements and conditions of Section 36-176.

(6) Wind Energy Facility, Large in compliance with the requirements and conditions of Section 36-176.

PART IV. That Chapter 36 Section 36-204 RS-10 residential district be amended as follows:

(b) *Permitted uses.* The following uses shall be permitted by right:

...
(6) Wind Energy Facility, Small in compliance with the requirements of Section 36-176.

(7) Wind Energy Facility, Rooftop in compliance with the requirements of Section 36-176.

(c) *Conditional uses permitted.* The following uses are permitted subject to the requirements of this district and such additional regulations and requirements as may be imposed by the town council as provided in article X of this chapter:

...
(5) Wind Energy Facility, Medium in compliance with the requirements and conditions of Section 36-176.

(6) Wind Energy Facility, Large in compliance with the requirements and conditions of Section 36-176.

PART V. That Chapter 36 Section 36-205 RS-1 low-density residential district be amended as follows:

(b) *Permitted uses.* The following uses shall be permitted by right:

...
(9) Wind Energy Facility, Small in compliance with the requirements of Section 36-176.

(10) Wind Energy Facility, Rooftop in compliance with the requirements of Section 36-176.

(c) *Conditional uses permitted.* The following uses are permitted subject to the requirements of this district and such additional regulations and requirements as may be imposed by the town council as provided in article X of this chapter:

...
(8) Wind Energy Facility, Medium in compliance with the requirements and conditions of Section 36-176.

(9) Wind Energy Facility, Large in compliance with the requirements and conditions of Section 36-176.

1 **PART VI.** That Chapter 36 Section 36-206 Government and institutional district be amended as
2 follows:

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4 (b) *Permitted uses.* The following uses shall be permitted by right:

5 ...

6 (10) Wind Energy Facility, Small in compliance with the requirements of Section 36-176.

7
8 (11) Wind Energy Facility, Rooftop in compliance with the requirements of Section
9 36-176.

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12 (c) *Conditional uses permitted.* The following uses are permitted subject to the requirements
13 of this district and such additional regulations and requirements as may be imposed by the
14 town council as provided in article X of this chapter:

15 ...

16 (3) Wind Facility, Medium in compliance with the requirements and conditions of Section
17 36-176.

18
19 (4) Wind Energy Facility, Large in compliance with the requirements and conditions of
20 Section 36-176.

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23 **PART VII.** That Chapter 36 Section 36-207 C general commercial district (b) be amended as
24 follows:

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26 (b) *Permitted uses.* The following uses shall be permitted by right:

27 ...

28 (11) Wind Energy Facility, Small in compliance with the requirements of Section 36-176.

29
30 (12) Wind Energy Facility, Rooftop in compliance with the requirements of Section 36-176.

31
32 (13) Wind Energy Facility, Medium in compliance with the requirements and conditions of
33 Section 36-176.

34
35 (14) Wind Energy Facility, Large in compliance with the requirements and conditions of
36 Section 36-176.

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38 **PART VIII.** That Chapter 36 Section 36-176 be added as follows.

39
40 **Sec. 36-176. Wind Energy Facilities.**

41
42 (a) Definitions. The following definitions shall apply to all portions of the Town Code
43 relating to the use or construction of wind generation facilities within the Town.

44
45 (1) Applicant is the person or entity filing an application under this Ordinance.
46

1 (2) Environmental Assessment is a detailed examination of the applicant’s proposal and
2 its local environmental context with an emphasis on avoiding, minimizing, and mitigating
3 adverse impacts.

4
5 (3) Facility Operator is the entity responsible for the day-to-day operation and
6 maintenance of the Wind Energy Facility.

7
8 (4) Facility Owner is the entity or entities having controlling or majority equity interest
9 in the Wind Energy Facility, including their respective successors and assigns.

10
11 (5) Occupied Building is a residence, school, hospital, church, public library or other
12 buildings used for public gathering that is occupied or in use when the permit Application
13 is submitted.

14
15 (6) Public Road is a full passage right-of-way.

16
17 (7) Shadow Flicker is the visible flicker effect when rotating turbine blades cast shadows
18 on the ground and nearby structures causing the repeating pattern of light and shadow.

19
20 (8) Wind Energy Facility is an electric generating facility, whose main purpose is to
21 supply electricity, consisting of one or more Wind Turbines and other accessory
22 structures and buildings, including substations, meteorological towers, electrical
23 infrastructure, transmission lines and other appurtenant structures & facilities.

24
25 (9) Wind Energy Facility, Small is a single system designed to supplement other
26 electricity sources as an accessory use to existing buildings or facilities, wherein the
27 power generated is used primarily for on-site consumption. A small wind energy
28 conversion system consists of a single wind turbine, a tower, and associated control or
29 conversion electronics, which has a total rated capacity of 10 kW or less.

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31 (10) Wind Energy Facility, Medium is a wind energy conversion system consisting of
32 one or more wind turbine(s), a tower(s), and associated control or conversion electronics,
33 which has a total rated capacity of more than 20 kW but not greater than 100 kW.

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35 (11) Wind Energy Facility, Large is a wind energy conversion system consisting of one
36 or more wind turbine(s), a tower(s), and associated control or conversion electronics,
37 which has a total rated capacity of more than 100 kW.

38
39 (12) Wind Energy Facility, Rooftop is one or more roof-mounted systems designed to
40 supplement other electricity sources as an accessory use to existing buildings or facilities,
41 wherein the power generated is used primarily for on-site consumption. A supplementary
42 wind energy conversion system consists of one or more roof-mounted wind turbines, and
43 associated control or conversion electronics, which has a total rated capacity of 10 kW or
44 less.

45
46 (13) Wind Power is the conversion of wind energy into another form of energy.
47

1 (14) Wind Turbine or windmill is a wind energy conversion system that converts wind
2 energy into electricity through the use of a wind turbine generator, and may include a
3 nacelle, rotor, tower, **guy wires** and pad transformer.
4

5 (15) Wind Turbine Height is the distance measured from grade at the center of the tower
6 to the highest point of the turbine rotor or tip of the turbine blade when it reaches its
7 highest elevation.
8

9 (b) Permit requirement

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11 (1) No Wind Energy Facility, or addition of a Wind Turbine to an existing Wind Energy
12 Facility, shall be constructed unless a permit has been issued to the Facility Owner or
13 Operator approving construction of the facility under this Ordinance. Permit application
14 of the expansion shall be based on the total rated capacity, including existing facility but
15 excluding like-kind replacements.
16

17 (2) Any physical modification to an existing and permitted Wind Energy Facility that
18 materially alters the size and/or type of Wind Turbines or other equipment shall require a
19 permit modification under this Ordinance. Like-kind replacements shall not require a
20 permit modification.
21

22
23 (c) Permit Application

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25 (1) The permit application shall contain the following:

- 26 a) A narrative describing the proposed Wind Energy Facility, including an overview
27 of the project;
28
29 b) The proposed total rated capacity of the Wind Energy Facility;
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31 c) The proposed number, representative types and height or range of heights of wind
32 turbines to be constructed; including their generating capacity, dimensions and
33 respective manufacturers, and a description of ancillary facilities;
34
35 d) Identification and location of the properties on which the proposed Wind Energy
36 Facility will be located;
37
38 e) A site plan showing the planned location of all wind turbines, property lines,
39 setback lines, access roads and turnout locations, substation(s), electrical cabling
40 from the Wind Energy Facility to the substation(s), ancillary equipment,
41 building(s), transmission and distribution lines. The site plan must also include
42 the location of all structures and properties, demonstrating compliance of the
43 setbacks;
44
45 f) Certification of compliance with applicable local, state and Federal regulations,
46 such as FAA and FCC regulations.
47

- g) An Environmental Assessment for Large Wind Energy Facilities, which shall be provided for review by the applicant to the agency point of contact and to the state clearinghouse for distribution. The applicant must also present a certification of distribution of the Environmental Assessment;
- h) Other relevant information as may be reasonably requested by the Town of Southern Shore to ensure compliance with the requirements of this Ordinance.
- i) Decommissioning plans that describe the anticipated life of the wind power project, the estimated decommissioning costs in current dollars, the method for ensuring that funds will be available for decommissioning and restoration, and the anticipated manner in which the wind power project will be decommissioned and the site restored;
- j) Documentation of agreement between Participating Landowner(s) and the Facility Owner/Operator of the Wind Energy Facility; and
- k) Signature of the Applicant.

(2) Throughout the permit process, the Applicant shall promptly notify Town of Southern Shores of any proposed changes to the information contained in the permit application that would alter the impact of the project.

(3) Changes to the approved application that do not materially alter the initial site plan may be adopted administratively.

(d) Setbacks – The following dimensional requirements shall apply to the installation of wind turbines and/or wind energy facilities:

Wind Energy Facility Type	Minimum Setback Requirements ¹				Maximum Height from Grade
	Occupied Buildings on System Owner's Property	Occupied Buildings on Adjacent Property	Property Lines and Right-of-Ways	Public Roads	
Small Facility	0	1.5	1.1	1.5	35 ft.
Medium Facility	1.1	2	1.5	1.5	60 ft.
Large System	1.1	2.5	1.5	1.5	80 ft.

1. The setback is calculated by multiplying the required setback number by the Wind Turbine Height and measured from the center of the wind turbine base to the property line, Public Road, or nearest point on the foundation of an Occupied Building.

(1) Setbacks provisions may be waived if the following conditions are met:

- a) Property owners may waive the setback requirements for Property Lines and/or Occupied Buildings on the Owners property and/or Adjacent Property by signing a waiver that sets forth the applicable setback provision(s) and the proposed changes.
- b) The written waiver shall notify applicable property owner(s) of the setback required by this Ordinance, describe how the Wind Energy Facility is not in compliance, and state that consent is granted for the Wind Energy Facility to waive the setback as required by this Ordinance.
- c) Any such waiver shall be signed by the applicant, the Property Owner(s) and/or Adjacent Property Owners (s), and recorded in the Deeds Office where the property is located.

(e) Noise and Shadow Flicker

This section shall only apply to Large Wind Energy Facilities. Noise and shadow flicker issues for Small and Medium Wind Energy Facilities are addressed by setbacks, or will be addressed by an existing noise ordinance.

(1) Audible sound from a Large Wind Energy Facility shall not exceed fifty-five (55) dBA, as measured at any Occupied Building of an adjacent property owner.

(2) Shadow flicker at any Occupied Building on an adjacent property caused by a Large Wind Energy Facility located within 2,500 ft of the Occupied Building shall not exceed thirty (30) hours per year.

(3) Noise and/or shadow flicker provisions may be waived if the following conditions are met:

a) Property owners may waive the noise and/or shadow flicker provisions of this Ordinance by signing a waiver of their rights.

b) The written waiver shall notify applicable property owner(s) of the noise and/or flicker limits required by this Ordinance, describe how the Wind Energy Facility is not in compliance, and state that consent is granted for the Wind Energy Facility to waive noise and/or flicker limits as required by this Ordinance.

c) Any such waiver shall be signed by the applicant and the Adjacent Property Owners (s), and recorded in the Deeds Office where the property is located.

(f) Installation and Design

(1) Wind turbine towers must be a self supporting tubular tower (monopole); and installation and design of the Wind Energy Facility shall conform to applicable industry standards, including those of the American National Standards Institute, and take into consideration local conditions.

1 (2) All structural, electrical and mechanical components of the Wind Energy Facility
2 shall conform to relevant and applicable local, state and national codes.

3
4 (3) Any on-site collector system shall, to the maximum extent possible, be placed
5 underground.

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7 (4) The visual appearance of Wind Energy Facilities shall at a minimum:

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9 1) Be a non-obtrusive color (such as light blue, off-white or light gray) that
10 blends with the sky, as determined by the Planning Director;

11
12 2) Not be artificially lighted, except to the extent required by the Federal
13 Aviation Administration or other applicable authority that regulates air safety;
14 and,

15
16 3) Not display advertising (including flags, streamers or decorative items), except
17 for identification of the turbine manufacturer, facility owner and operator.

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19 (g) Decommissioning

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21 (1) The Wind Energy Facility Owner shall have 6 months to complete
22 decommissioning of the Facility if no electricity is generated for a continuous
23 period of 12 months.

24
25 (2) Decommissioning shall include removal of wind turbines, buildings, cabling,
26 electrical components, roads, and any other associated facilities down to 36
27 inches below grade.

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29 (3) Disturbed earth shall be graded and re-seeded, unless the landowner requests in
30 writing that the access roads or other land surface areas not be restored.