# Section 9 Miscellaneous

#### 9. Miscellaneous

#### Miscellaneous

#### 9.1 Application for Small-Scale Wind Energy Certification

A copy of the completed application is included as Exhibit 9-A.

#### 9.2 Certificate of Good Standing

A copy of RoxWind's Certificate of Good Standing is included as Exhibit 9-B.

#### 9.3 Federal Aviation Administration – Determination of No Hazard

The Applicant received determinations of no hazard for four (4) turbines on North Twin Mountain on July 26, 2017. These determinations are attached as Exhibit 9-C and have the following study numbers:

• Turbine 1: 2017-WTE-3934-OE

• Turbine 2: 2017-WTE-3935-OE

Turbine 3: 2017-WTE-3936-OE

Turbine 4: 2017-WTE-3937-OE

The determinations dictate the lighting requirements for the Project. The approved lighting requirement is that each turbine:

is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

These are the same lights currently operating at the adjacent Record Hill Wind Project.

In addition to the approved lighting scheme, the Applicant has reviewed the possibility of installing an aircraft detecting lighting system ("ADLS") at the Project to determine if ADLS would meet the Certifications concept of "best practical mitigation techniques."

Applicant contacted the FAA local contact to discuss the status of ADLS. The FAA contact informed Applicant that there are limited manufacturers for approved ADLS. Applicant has received two (2) quotations, subject to non-disclosure agreements with ADLS manufacturing parties, for installing an ADLS at the site. These quotations inform the Applicant's determination that ADLS is cost prohibitive at this time for a project of this small size and thus is not a "best practical mitigation technique."

<sup>&</sup>lt;sup>1</sup> Chapter 14, Aircraft Detection Lighting Systems, of the FAA Advisory circular 70/7460-1 L Change 1

RoxWind LLC Small Wind Certification Application

#### 9. Miscellaneous

In addition to the capital cost to install the ADLS system, the Applicant, through its ITP with MDIFW, has already agreed to the most stringent level of seasonal curtailment<sup>2</sup> for bat species which comes at an economic loss to the Applicant in order to comply with MDIFW's request for "best practical mitigation techniques." As a small project, the Applicant cannot easily absorb additional capital and operating costs associated with new technology which has not been widely deployed while at the same time agreeing to curtail operations (and hence revenue) to mitigate other potential environmental impacts.

Lastly, the four (4) lit turbines will not create a new or unusual view in the overall visual landscape as they will be joining the already existing and lit Record Hill turbines (8 of which are lit) and the nearby communication tower on Black Mountain.

Switching to ADLS would create an undue burden on the Applicant while not having a significant impact on the existing skyline which already includes multiple lit structures. As discussed in the Visual Impact Assessment (Exhibit 5-A), the "RoxWind Project will not significantly compromise views from Scenic Resources of State or National Significance" and "no SRSNSs with Project visibility within Study Area would be expected to have viewers after dark."

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<sup>&</sup>lt;sup>2</sup> When compared to permitted wind projects.

# 9-A Application for Small-Scale Wind Energy Certification

Department of Environmental Protection	FOR DEP USE	12/16
Bureau of Land Resources	ATS#	12/10
17 State House Station	L-	
Augusta, Maine 04333-0017	Total Fees:	
Telephone: (207) 287-7688	Date Received:	
**********	******	******

## APPLICATION FOR MAINE WIND ENERGY ACT CERTIFICATION FOR SMALL-SCALE WIND ENERGY DEVELOPMENTS

Facility name to appear on Certification	: RoxWind LLC	
Facility Location: North Twin Mountain, Roxt	bury, Maine	
Town: Roxbury	County Oxford	
Contact Person: Lindsay Deane-Mayer	Phone Number: 781 383 3200	
Mailing Address: 13 Elm Street, Suite 200, C	Cohasset, MA 02025	
E-Mail Address: lindsay@palmcap.com		
Nature of Business: developing community	r-scale wind energy facilities	
If an agent is representing the applicant,	does the agent have an ownership interest in this project?	Y∎N
If yes, what is the interest?		

#### Attachment 1. Noise

A. Provide a full noise study prepared by a qualified professional, which demonstrates that the proposed wind generation facility will comply with the sound level limits for wind energy developments in the Department's rules, Chapter 375, Section 10(I). The noise study must include the following:

#### (1)Baseline

- Uses, zoning and plans. Maps and description of the land uses, local zoning and comprehensive plans for the area potentially affected by sounds from the development.
- <u>Protected locations</u>. Descriptions of the protected locations near the development. (b)

(c) <u>Quiet area</u>. Evidence concerning whether or not the area surrounding the development is a quiet area.

# (2) Noise generated by the development

- (a) <u>Type, source and location of noise</u>. A description of all types of noise to be generated, sources of noise and locations of noise sources.
- (b) <u>Sound levels</u>. A description of the daytime and nighttime sound levels expected at property lines and protected locations for all types of sound generated.
- (c) <u>Control measures</u>. A description of proposed sound control measures, locations and expected performance.
- (d) <u>Comparison with regulatory limits</u>. A comparison of expected sound levels with sound level limits in regulations.
- (e) <u>Comparison with local limits</u>. A comparison of expected sound levels with any quantifiable noise standards of any affected municipality.

A waiver from the requirement to complete a noise study may be granted, at the Department's discretion, for proposed projects that are located in remote regions with no protected locations within close proximity to the proposed project.

## ■ Attachment 2. Shadow flicker

Provide a detailed model of the wind energy development that demonstrates that the project has been designed to avoid unreasonable adverse shadow flicker effects. The shadow flicker model must utilize the WindPro software or other modeling software as approved by the Department.

# Attachment 3. Public Safety

Provide documentation in the form of a site plan that demonstrates that the proposed wind energy development has been designed to conform to applicable industry standards and that the proposed wind energy development will not present an unreasonable safety hazard to adjacent properties or adjacent property uses. Documentation provided by the applicant must include, but is not limited to evidence that the wind turbines have been sited with appropriate safety related setbacks from adjacent properties and adjacent existing uses; such evidence shall include a site plan and applicable documentation as necessary to show that the proposed wind generation facility turbines have been sited in such a manner as to provide a minimum setback from the nearest property line and/or public access way. The recommended minimum setback is a distance of not less than the normal setback requirements for that zoning classification as dictated by the local municipal zoning ordinance, or 1.5 times the maximum turbine blade height, whichever is greater. The setback distance must be measured to the closest edge of the wind turbine tower base.

Developments may be sited closer than the required minimum safety setback to the nearest property line and/or public access way if the applicant is able to demonstrate, through a safety setback easement, that they have secured rights sufficient to prevent the development and use of occupied structures or public access ways within the prescribed safety zone.

Each application submitted to the Department must include the following certification signed by the applicant or duly authorized officer or agent. If the application is signed by an agent, the application must include written authorization signed by the applicant or duly authorized officer.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I authorize the Department to enter the property that is the subject of this application at reasonable hours, including buildings and structures on the property, to determine the accuracy of any information provided herein.

Further, I hereby authorize the Department to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the address provided with this application."

March 20, 2018

Signature

DEAN DERNE-MAYER

Printed Name

leng Was Bress

Box Wind LLC

# APPLICATION FOR NATURAL RESOURCES PROTECTION ACT PERMIT FOR A SMALL-SCALE WIND ENERGY DEVELOPMENT

APPLICANT NAME: RoxWind LLC
MAILING ADDRESS: 13 Elm Street, Suite 200, Cohasset, MA 02025
<b>DAYTIME PHONE #:</b> 781 383 3200
EMAIL ADDRESS (REQUIRED): lindsay@palmcap.com
AGENT NAME:
AGENT'S MAILING ADDRESS:
AGENT'S DAYTIME PHONE #:
AGENT'S EMAIL ADDRESS (REQUIRED):
PROJECT LOCATION (Street, Town, County): Horseshoe Valley Road, Roxbury, Oxford Country
TITLE, RIGHT OR INTEREST (own/lease/other): Lease
DEED REF (book/page): 5390/709, 5219/54  PARCEL REF (map/lot): 2/34-35

## REQUIRED SUPPORT DOCUMENTATION:

Copy of Title, lease, or other documentation of interest Topographic site plans, existing and proposed Copy of Public Notice/Public Information Meeting documentation Erosion Control/Construction Plan Public Safety Plan, including a Fire Protection Plan Plan to address best practical mitigation techniques for wildlife impacts Visual Impact Assessment Decommissioning Plan

#### PAGE 2 12/16

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following:

#### DEP SIGNATORY REQUIREMENT

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I authorize the Department to enter the property that is the subject of this application at reasonable hours, including buildings and structures on the property, to determine the accuracy of any information provided herein.

Further, I hereby authorize the Department to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the address submitted with this application."

Manon 20, 2018

Signature Desne M

LINDSDY DEPONE - MAYER

Printed Name

Series Vice President, Palmer Management Organismon Title Manager of Box Wind LLC

NOTE: Any changes in activity plans must be submitted to the Department in writing and must be approved prior to implementation. Failure to do so may result in enforcement action and/or the removal of the unapproved changes to the activity.

# 9-B RoxWind's Certificate of Good Standing



# The Commonwealth of Massachusetts Secretary of the Commonwealth State House, Boston, Massachusetts 02133

### March 8, 2018

#### TO WHOM IT MAY CONCERN:

I hereby certify that a certificate of organization of a Limited Liability Company was filed in this office by

#### ROXWIND LLC

in accordance with the provisions of Massachusetts General Laws Chapter 156C on January 9, 2017.

I further certify that said Limited Liability Company has filed all annual reports due and paid all fees with respect to such reports; that said Limited Liability Company has not filed a certificate of cancellation or withdrawal; and that said Limited Liability Company is in good standing with this office.

I also certify that the names of all managers listed in the most recent filing are:
PALMER MANAGEMENT CORPORATION

I further certify, the names of all persons authorized to execute documents filed with this office and listed in the most recent filing are: PALMER MANAGEMENT CORPORATION

The names of all persons authorized to act with respect to real property listed in the most recent filing are: NONE



In testimony of which,

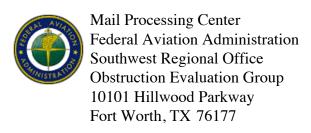
I have hereunto affixed the

Great Seal of the Commonwealth
on the date first above written.

Secretary of the Commonwealth

lein Travin Galicin

# 9-C FAA Determinations of No Hazard



Issued Date: 07/26/2017

Lindsay Deane RoxWind LLC 13 Elm Street Suite 200 Cohasset, MA 02025

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Wind Turbine WT-1

Location: Roxbury, ME

Latitude: 44-36-48.82N NAD 83

Longitude: 70-37-10.03W

Heights: 2134 feet site elevation (SE)

495 feet above ground level (AGL) 2629 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part 1)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 01/26/2019 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. This determination is valid for coordinates within one (1) second latitude/longitude and up to the approved AMSL height listed above (provided the AGL height does not exceed 499 feet). If a certified 1A or 2C accuracy survey was required to mitigate an adverse effect, any change in coordinates or increase in height will require a new certified accuracy survey and may require a new aeronautical study.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. All information from submission of Supplemental Notice (7460-2 Part 2) will be considered the final data (including heights) for this structure. Any future construction or alteration, including but not limited to changes in heights, requires separate notice to the FAA.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (816) 329-2528, or cindy.whitten@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-WTE-3934-OE.

**Signature Control No: 335922230-339117597** 

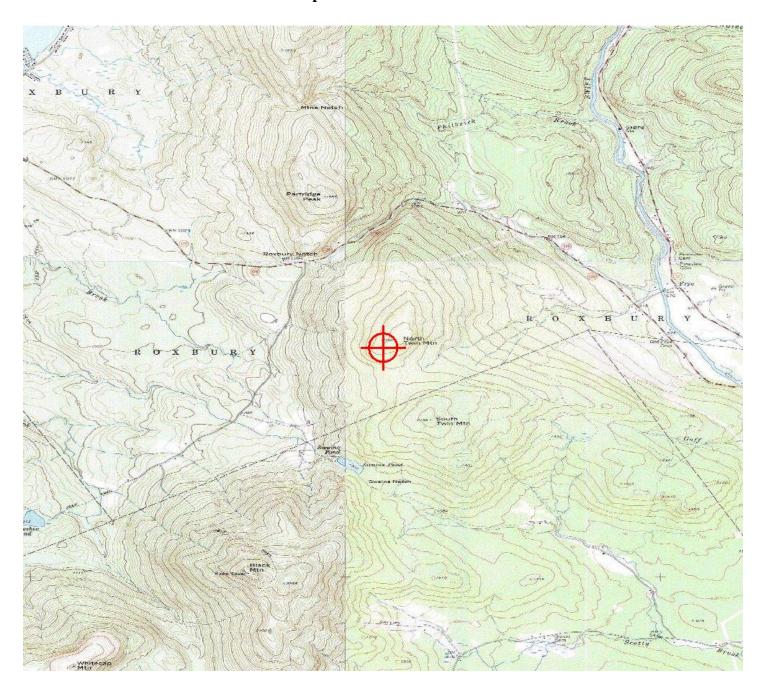
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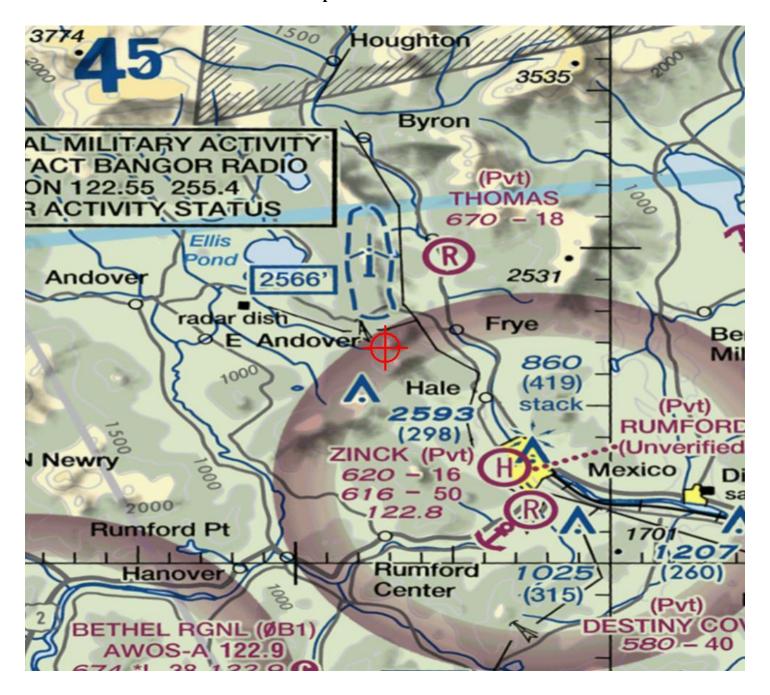
Cindy Whitten Specialist

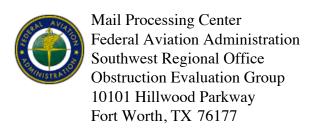
Attachment(s)

Map(s)

# TOPO Map for ASN 2017-WTE-3934-OE







Issued Date: 07/26/2017

Lindsay Deane RoxWind LLC 13 Elm Street Suite 200 Cohasset, MA 02025

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Wind Turbine WT-2

Location: Roxbury, ME

Latitude: 44-37-02.73N NAD 83

Longitude: 70-37-00.39W

Heights: 2100 feet site elevation (SE)

495 feet above ground level (AGL) 2595 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part 1)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 01/26/2019 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. This determination is valid for coordinates within one (1) second latitude/longitude and up to the approved AMSL height listed above (provided the AGL height does not exceed 499 feet). If a certified 1A or 2C accuracy survey was required to mitigate an adverse effect, any change in coordinates or increase in height will require a new certified accuracy survey and may require a new aeronautical study.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. All information from submission of Supplemental Notice (7460-2 Part 2) will be considered the final data (including heights) for this structure. Any future construction or alteration, including but not limited to changes in heights, requires separate notice to the FAA.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (816) 329-2528, or cindy.whitten@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-WTE-3935-OE.

**Signature Control No: 335922231-339117598** 

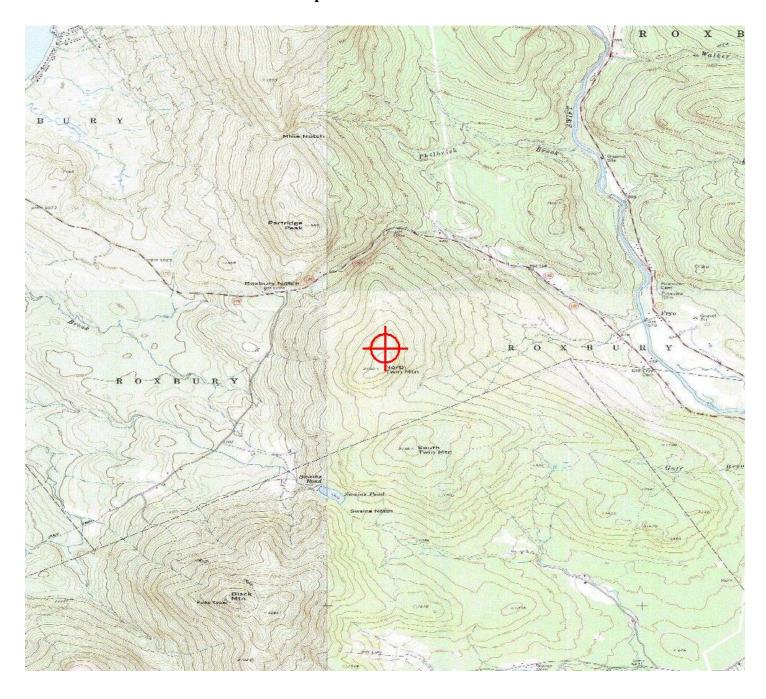
(DNE-WT)

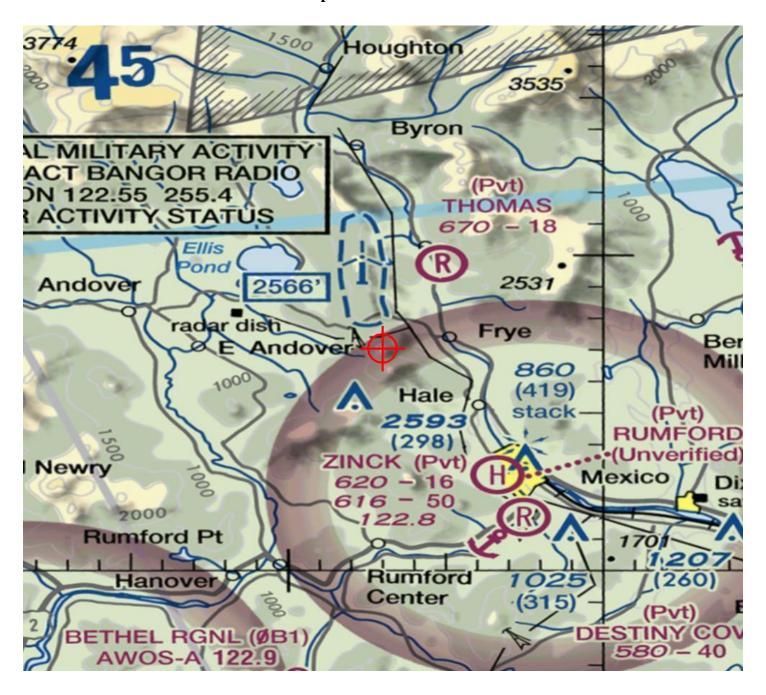
Cindy Whitten Specialist

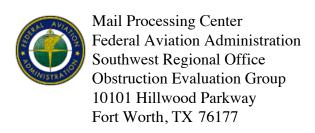
Attachment(s)

Map(s)

# TOPO Map for ASN 2017-WTE-3935-OE







Issued Date: 07/26/2017

Lindsay Deane RoxWind LLC 13 Elm Street Suite 200 Cohasset, MA 02025

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Wind Turbine WT-3

Location: Roxbury, ME

Latitude: 44-37-15.68N NAD 83

Longitude: 70-36-58.75W

Heights: 1900 feet site elevation (SE)

495 feet above ground level (AGL) 2395 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part 1)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part 2

This determination expires on 01/26/2019 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. This determination is valid for coordinates within one (1) second latitude/longitude and up to the approved AMSL height listed above (provided the AGL height does not exceed 499 feet). If a certified 1A or 2C accuracy survey was required to mitigate an adverse effect, any change in coordinates or increase in height will require a new certified accuracy survey and may require a new aeronautical study.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. All information from submission of Supplemental Notice (7460-2 Part 2) will be considered the final data (including heights) for this structure. Any future construction or alteration, including but not limited to changes in heights, requires separate notice to the FAA.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (816) 329-2528, or cindy.whitten@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-WTE-3936-OE.

**Signature Control No: 335922232-339117600** 

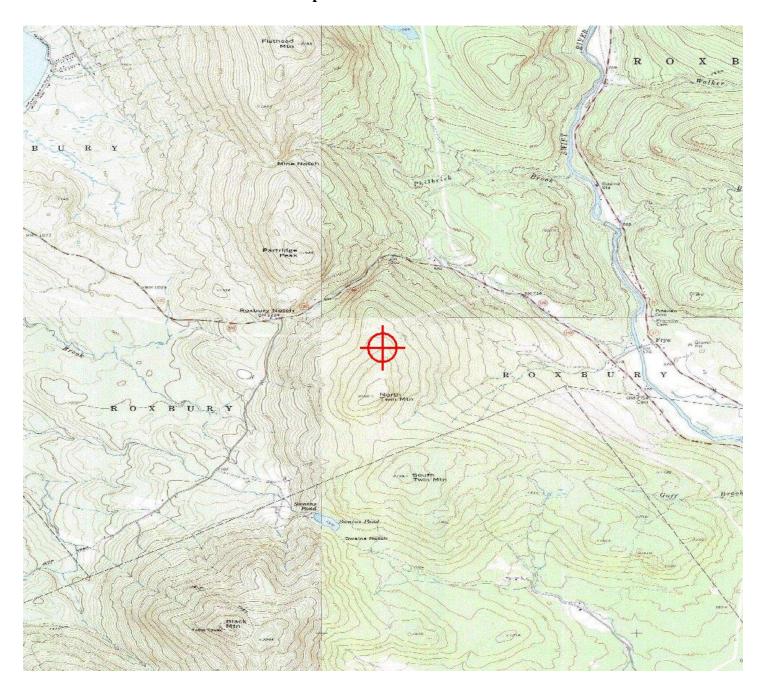
(DNE-WT)

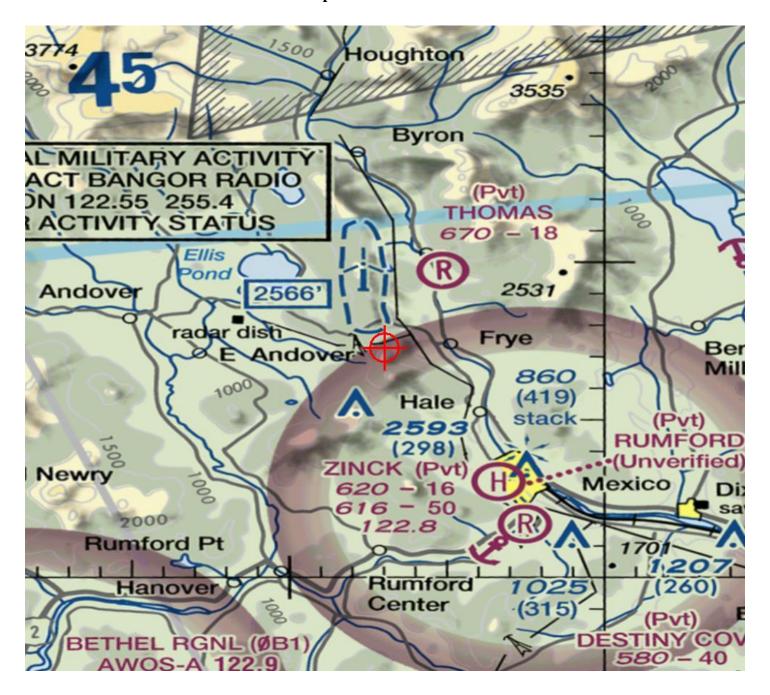
Cindy Whitten Specialist

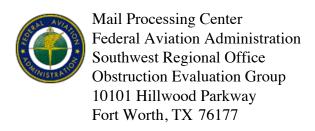
Attachment(s)

Map(s)

# TOPO Map for ASN 2017-WTE-3936-OE







Issued Date: 07/26/2017

Lindsay Deane RoxWind LLC 13 Elm Street Suite 200 Cohasset, MA 02025

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Wind Turbine WT-4

Location: Roxbury, ME

Latitude: 44-37-28.53N NAD 83

Longitude: 70-37-05.15W

Heights: 1750 feet site elevation (SE)

495 feet above ground level (AGL) 2245 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part 1)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 01/26/2019 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. This determination is valid for coordinates within one (1) second latitude/longitude and up to the approved AMSL height listed above (provided the AGL height does not exceed 499 feet). If a certified 1A or 2C accuracy survey was required to mitigate an adverse effect, any change in coordinates or increase in height will require a new certified accuracy survey and may require a new aeronautical study.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. All information from submission of Supplemental Notice (7460-2 Part 2) will be considered the final data (including heights) for this structure. Any future construction or alteration, including but not limited to changes in heights, requires separate notice to the FAA.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (816) 329-2528, or cindy.whitten@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-WTE-3937-OE.

**Signature Control No: 335922233-339117599** 

(DNE-WT)

Cindy Whitten Specialist

Attachment(s)

Map(s)

# TOPO Map for ASN 2017-WTE-3937-OE

