

## CASE 037-AT-22

SUPPLEMENTAL MEMORANDUM #3

MAY 26, 2022

**Petitioner:** Zoning Administrator

**Request:** Amend the Champaign County Zoning Ordinance as follows:

1. Add new paragraph 6.1.4 A.3. regarding Right to Farm Resolution 3425.
2. Amend Sections 6.1.4 C and D regarding WIND FARM TOWER height.
3. Revise paragraph 6.1.4 D.7. regarding Aircraft Detection Lighting Systems (ADLS).
4. Add new Section 6.1.4 R to require conformance to the State of Illinois Agricultural Impact Mitigation Agreement.
5. Revise Section 9 Regarding WIND FARM fees.

**Location:** Unincorporated Champaign County

**Time Schedule for Development:** As soon as possible

**Prepared by:** Susan Burgstrom, Senior Planner  
John Hall, Zoning Administrator

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### STATUS

A Resolution of Protest was received from the Village of Philo on May 19, 2022; see Attachment B. The Resolution appears to protest the entirety of the proposed text amendment. New evidence has been added to the Finding of Fact as provided below.

### REVISED FINDING OF FACT

P&Z Staff will add the following evidence to the Finding of Fact under Item 20:

20. A Resolution of Protest was received from the Village of Philo on May 19, 2022. A municipal protest triggers the requirement for a three-fourths majority vote at the County Board rather than a simple majority for approval of the text amendment. The Village of Philo indicated the following reasons for protesting the text amendment:
  - A. The text amendment will “increase the height of wind turbines creating increased noise levels, visual intrusion, visual blight, diminished television, radio, and internet reception, negative effects on birds and other wildlife, compromised public safety, particularly during storm events, and nuisances.”
  - B. The text amendment will “create insufficient spacing of wind turbines from residences and/or principal buildings regardless of whether they are participating or non-participating thereby exposing residences and buildings to noise, visual

blight, visual intrusion, safety, compromised television, radio and internet reception, and nuisances.”

C. In response to the concerns in the Resolution of Protest, P&Z Staff provided additional evidence as new Items 19.K., L., and M.

P&Z Staff will also add the following evidence under Item 19:

19. Regarding Part 2.B. of the text amendment regarding the proposed change to maximum WIND FARM TOWER HEIGHT:

K. Existing Zoning Ordinance Section 6.1.4H includes standard conditions to mitigate electromagnetic interference, including consultation with applicable microwave transmission providers and local emergency service providers. Adopting a no-maximum WIND FARM TOWER HEIGHT should not reduce the effectiveness of Section 6.1.4H.

L. Existing Zoning Ordinance Sections 6.1.4J. and L. includes standard conditions for endangered species consultation and acceptable wildlife impacts, including consultation with the Illinois Department of Natural Resources and other qualified professionals such as ornithologists and wildlife biologists. Adopting a no-maximum WIND FARM TOWER HEIGHT should not reduce the effectiveness of mitigations provided for endangered species and other wildlife.

M. Regarding radar detection of severe weather events including tornadoes, Champaign County is far enough from the NWS doppler radar at Lincoln, Illinois that there will be no more than minimal interference from wind turbines. The Lincoln weather station is approximately 50 miles (80 km) from the western Champaign County line.

(1) The NOAA National Weather Service Radar Operations Center (ROC) has acknowledged that radar interference has occurred due to wind turbines and has created an online resource titled “How the ROC Analyses Wind Turbine Siting Proposals” that outlines how ROC does a case-by-case analysis of proposed wind farm developments. “The ROC has developed a four zone scheme that takes terrain, distance, and the number of elevation angles impacted into account: no build, mitigation, consultation, and notification.”

a. The No Build Zone is a four kilometer radius around the radar station in order to avoid “the potential for serious impacts, including turbine nacelles blocking the radar beam and potential receiver damage if sited in the radar’s near field.”

b. The Mitigation Zone “is the area between 4 km and 36 km where a 160-meter turbine would penetrate more than one elevation angle.” There is the “potential for moderate to high impacts” and the ROC “will work with the developer to get detailed project information, do a thorough impact analysis, and discuss potential mitigation solutions.”

- c. The Consultation Zone “is the area between 4 km and 36 km where a 160-meter turbine only penetrates the first elevation angle or when a 160-meter tall turbine will penetrate more than one elevation angle between 36 km and 60 km. Due to the increased potential for impact to operations the ROC is requesting consultation with the developer to track the project and acquire additional information for a thorough impact analysis.”
- d. The Notification Zone “is the area between 36 km and 60 km where a 160-meter tall turbine will only penetrate one elevation angle, or any area beyond 60 km that a 160-meter tall turbine is in the radar line of site (RLOS). Since impacts are typically minimal beyond 60 km and workarounds are available for penetration of only one elevation angle, the ROC is making consultation optional; however, NOAA would still like to know about the project.”

## ATTACHMENTS

- A Legal advertisement for Case 037-AT-22 dated March 2, 2022
- B Resolution No. 2022-R-3 from the Village of Philo in protest of Case 037-AT-22 received May 19, 2022
- C Online source: *How the ROC Analyses Wind Turbine Siting Proposals*  
<https://www.roc.noaa.gov/WSR88D/WindFarm/Analyses.aspx?wid=dev>

LEGAL PUBLICATION: WEDNESDAY, MARCH 2, 2022

CASE: 037-AT-22

**NOTICE OF PUBLIC HEARING IN REGARD TO AN AMENDMENT TO THE TEXT OF THE CHAMPAIGN COUNTY ZONING ORDINANCE**

CASE 037-AT-22

The Champaign County Zoning Administrator, 1776 East Washington Street, Urbana, has filed a petition to amend the text of the Champaign County Zoning Ordinance. The petition is on file in the office of the Champaign County Department of Planning and Zoning, 1776 East Washington Street, Urbana, IL.

A public hearing will be held **Thursday, March 17, 2022 at 6:30 p.m.** prevailing time in the Shields-Carter Meeting Room, Brookens Administrative Center, 1776 East Washington Street, Urbana, IL, at which time and place the Champaign County Zoning Board of Appeals will consider a petition for the following:

Amend the Champaign County Zoning Ordinance as follows:

1. Regarding Right to Farm Resolution 3425, add new paragraph 6.1.4 A.3. as follows:
  3. The owners of the subject property and the Applicant, its successors in interest, and all parties to the decommissioning plan and site reclamation plan hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.
2. Regarding WIND FARM TOWER height, amend Sections 6.1.4 C and D as follows:
  - A. Amend Section 6.1.4 C.1. and 2. as follows:
    1. Change the minimum required separation from 1,000 feet to 2.00 times the maximum allowed total WIND FARM TOWER HEIGHT between a WIND FARM TOWER and any PARTICIPATING DWELLING OR PRINCIPAL BUILDING.
    2. Change the minimum required separation from 1,000 feet to 2.40 times the maximum allowed total WIND FARM TOWER HEIGHT between a WIND FARM TOWER and any NON-PARTICIPATING DWELLING OR PRINCIPAL BUILDING.
  - B. Amend 6.1.4 D.5. as follows:
    5. Change the maximum WIND FARM TOWER HEIGHT from 500 feet to having no limit, subject to conformance to all FAA requirements including an FAA Determination of No Hazard with or without Conditions.
3. Regarding Aircraft Detection Lighting Systems (ADLS), revise paragraph 6.1.4 D.7. as follows:
  7. Require all WIND FARM TOWERS to use ADLS (aircraft detection lighting system) or equivalent system to reduce the impact of nighttime lighting on nearby residents, communities and migratory birds in accordance with the FAA Advisory circular: 70/7460-IL section 14.1.
4. Regarding the Agricultural Impact Mitigation Agreement, revise Section 6.1.4 as follows:
  - A. Add new Section 6.1.4R: Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture, as follows:

- (1) If provided by state law, the Applicant shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
  - (2) The Applicant shall bear full responsibility for coordinating any special conditions required in the SPECIAL USE Permit in order to ensure compliance with the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
  - (3) All requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture shall become requirements of the COUNTY Board SPECIAL USE Permit.
  - (4) Champaign County shall have the right to enforce all requirements of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
- B. Add new paragraph 6.1.4A.4 as follows:  
All aboveground STRUCTURES and facilities shall be of a type and shall be located in a manner that is consistent with the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.4R.
- C. Revise Section 6.1.4E. to require conformance with the approved Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture.
- D. Add new paragraph 6.1.4P.4.g. as follows:  
Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.4R. shall count towards the total financial assurance required for compliance with paragraph 6.1.1A.5.
- E. Add new paragraph 6.1.4S.1.d. as follows and re-letter subsequent paragraphs:  
The Applicant shall include a copy of the signed Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture with the Zoning Use Permit Application to authorize construction.
5. Regarding WIND FARM fees, revise Section 9 as follows:
- A. Revise paragraph 9.3.1H. as follows:  
Increase WIND FARM TOWER or BIG WIND TURBINE TOWER fee from \$4,500 to \$10,000.
  - B. Revise paragraph 9.3.3B.6. as follows:  
Increase the County Board WIND FARM SPECIAL USE Permit from \$20,000 to \$34,000 and the per WIND FARM TURBINE TOWER from \$440 to \$760.

All persons interested are invited to attend said hearing and be heard. If you would like to submit comments or questions before the meeting, please call the P&Z Department at 217-384-3708 or email [zoningdept@co.champaign.il.us](mailto:zoningdept@co.champaign.il.us) no later than 4:30 pm the day of the meeting. The hearing may be continued and reconvened at a later time.

Ryan Elwell, Chair  
Champaign County Zoning Board of Appeals

**TO BE PUBLISHED: WEDNESDAY, MARCH 2, 2022, ONLY**

Send bill and one copy to: Champaign County Planning and Zoning Dept.  
Brookens Administrative Center  
1776 E. Washington Street  
Urbana, IL 61802  
Phone: 384-3708

Our News Gazette account number is 99225860.

VILLAGE OF PHILO  
CHAMPAIGN COUNTY, ILLINOIS

RESOLUTION NO. 2022 - R-3

A RESOLUTION OBJECTING TO AN AMENDMENT TO THE CHAMPAIGN COUNTY  
ZONING ORDINANCE AS IT RELATES TO WIND FARMS PURSUANT TO  
55 ILCS 5/5-120/4 AND OTHER APPLICABLE LAW

RECEIVED

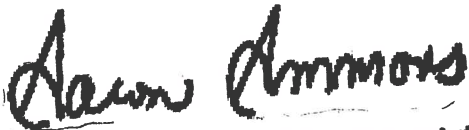
MAY 19 2022

CHAMPAIGN CO. P & Z DEPARTMENT

Adopted by the  
Board of Trustees of the Village of Philo  
this 11<sup>th</sup> day of May, 2022

FILED

MAY 16 2022



Aaron Ammons, Champaign County Clerk & Recorder's Office

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Published in pamphlet form by authority of the President and the Board of Trustees of the Village of Philo, Champaign County, Illinois, this 11<sup>th</sup> day of May, 2022.

**VILLAGE OF PHILO  
CHAMPAIGN COUNTY, ILLINOIS**

**Resolution No. 2022-R-3**

**May 11, 2022**

**A RESOLUTION OBJECTING TO AN AMENDMENT TO THE CHAMPAIGN COUNTY  
ZONING ORDINANCE AS IT RELATES TO WIND FARMS PURSUANT TO  
55 ILCS 5/5-120/4 AND OTHER APPLICABLE LAW**

WHEREAS, the Village of Philo, Champaign County, State of Illinois (the “Village”) is a duly organized and existing Village created under the provisions of the laws of the State of Illinois, and is now operating under the provisions of the Illinois Municipal Code, and all laws amendatory thereof and supplementary thereto with full powers to enact ordinances and resolutions for the benefit of the residents of the Village; and

WHEREAS, the Village of Philo previously established the Village of Philo Zoning Ordinance, the Village of Philo Subdivision Ordinance and a Village Comprehensive Plan encompassing the one-and-a-half-mile area outside of the Village; and

WHEREAS, pursuant to ILCS 5/11-12-4, the Illinois Constitution, applicable case law and all other laws, the Village has extra-territorial jurisdiction over the territory extending 1.5 miles from the Village corporate limits; and

WHEREAS, pursuant to a meeting held by the Champaign County ELUC on January 6, 2022, a Zoning Board of Appeals hearing held on March 17, 2022, and a Champaign County staff memorandum dated March 8, 2022 identified as Case 037-AT-22, the County is contemplating a text amendment (“Amendment”) to the Champaign County Zoning Ordinance (“Zoning Ordinance”) as it relates to windfarms; and

WHEREAS, said Amendment contemplates amending the Zoning Ordinance to:

- a. Acknowledge continued farming.
- b. Alter separation from 1,000’ to a multiple of 2 times the wind tower height and participating dwellings/principal buildings.
- c. Alter separation from 1,000’ to a multiple of 2.4 times the wind tower height and non-participating dwellings/principal buildings.
- d. Eliminating a 500’ height maximum to being unlimited except as regulated by the Federal Aviation Administration.
- e. Require windfarm towers to use aircraft detection lighting system.



f. Provide for Agricultural Impact Mitigation Agreements and require certain compliance with those agreements.

g. Amend certain fees; and

WHEREAS, said County staff memorandum identifies the petitioner as being the “Zoning Administrator” and that JOHN HALL is the Zoning Administrator for Champaign County; and

WHEREAS, said memorandum specifies that the changes requested constitute a “text amendment”; and

WHEREAS, 55 ILCS 5/5-12014 (b) provides that text amendments to a County Zoning Ordinance must be approved by a “...favorable vote of  $\frac{3}{4}$  of all the members of the county board...in the case of a proposed text amendment to the Zoning Ordinance, by resolution of the corporate authorities of the zoned municipality with limits nearest adjacent, filed with the county clerk...”; and

WHEREAS, the proposed text amendment affects all corporate authorities in the County of Champaign including, but not limited to, the Village of Philo, Illinois; and

WHEREAS, Champaign County is contemplating allowing a windfarm development which would benefit from those text amendments and which would incorporate part of the Village of Philo’s extraterritorial jurisdiction; and

WHEREAS, pursuant to 55 ILCS 5/5-12014 and other applicable law, the Village of Philo is entitled, by the within Resolution, to provide this written protest of such text amendment thereby triggering said  $\frac{3}{4}$  vote of all of the members of the County Board to approve said text amendment; and

WHEREAS, the address for the petitioner on said memorandum is listed as 1779 E. Washington Street, Urbana, Illinois 61802; and

WHEREAS, the Attorney representing Champaign County is its State’s Attorney, JULIA RIETZ with a publicly posted address of 101 E. Main Street #2, Urbana, Illinois 61801; and

WHEREAS, in support of the within Village of Philo objection to the above referenced text amendment, the Village hereby asserts that the text amendment, as proposed, as follows:

a. Will increase the height of wind turbines creating increased noise levels, visual intrusion, visual blight, diminished television, radio, and internet reception, negative effects on birds and other wildlife, compromised public safety, particularly during storm events, and nuisances.

b. Create insufficient spacing of wind turbines from residences and/or principal buildings regardless of whether they are participating or non-participating thereby exposing residences and buildings to noise, visual blight, visual intrusion, safety, compromised television, radio and internet reception, and nuisances.

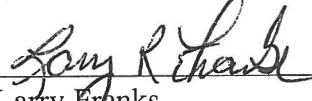
**NOW THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF PHILO, CHAMPAIGN COUNTY, ILLINOIS, AS FOLLOWS:**

1. The President and Board of Trustees of the Village of Philo hereby find that all recitals hereinbefore stated as contained in the preambles to this Resolution are full, true and correct and do hereby, by reference, incorporate and make them part of this Resolution.
2. The President and Board of Trustees of the Village of Philo hereby decree, pursuant to 55 ILCS 5/5-12014 and other applicable law, that the Village of Philo and its Board of Trustees object to said text amendment and any other text amendment to the Champaign County Zoning Ordinance.
3. This Resolution shall be in full force and effect upon passage and approval, as provided by the Illinois Municipal Code, as amended.
4. The Village Clerk is hereby directed and authorized to file a copy of the within Resolution with the Champaign County Clerk with a copy to be sent to JOHN HALL, Zoning Administrator as Petitioner/Applicant by certified mail at 1776 E. Washington Street, Urbana, Illinois 61802 with an informational copy to also be mailed to him by USPS First Class Mail with an informational copy to also be sent to JULIA REITZ as his attorney as being JULIA REITZ, State's Attorney, 101 E. Main Street #2, Urbana, Illinois 61801 by certified mail and also by USPS First Class Mail.
5. The Village Board President is further authorized to direct, carry out, and/or perform such actions as are necessary, in his opinion, to carry out this Resolution and its underlying intent.

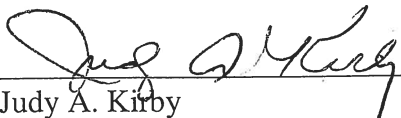
The foregoing Resolution was moved by DAVID HAPP, seconded by TOM KELLEY and approved by roll call vote.

Approved this 11<sup>th</sup> day of May, 2022.

APPROVED:

  
\_\_\_\_\_  
Larry Franks  
Village President

ATTEST:

  
\_\_\_\_\_  
Judy A. Kirby  
Village Clerk

STATE OF ILLINOIS )  
 ) SS  
COUNTY OF CHAMPAIGN )

**CERTIFICATE**

I, Judy A. Kirby, certify that I am the duly appointed and acting municipal clerk of the Village of Philo, Champaign County Illinois.

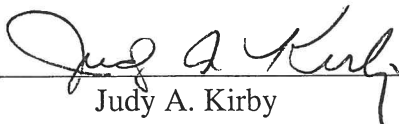
I further certify that on May 11, 2022, the Corporate Authorities of such municipality passed and approved Resolution No. 2022-~~A-3~~ entitled:

**A RESOLUTION OBJECTING TO AN AMENDMENT TO THE CHAMPAIGN COUNTY ZONING ORDINANCE AS IT RELATES TO WIND FARMS PURSUANT TO 55 ILCS 5/5-120/4 AND OTHER APPLICABLE LAW**

I further certify that the attached copy of said resolution is a true and correct copy of said resolution, as appears from the records of the Village of Philo, Illinois.

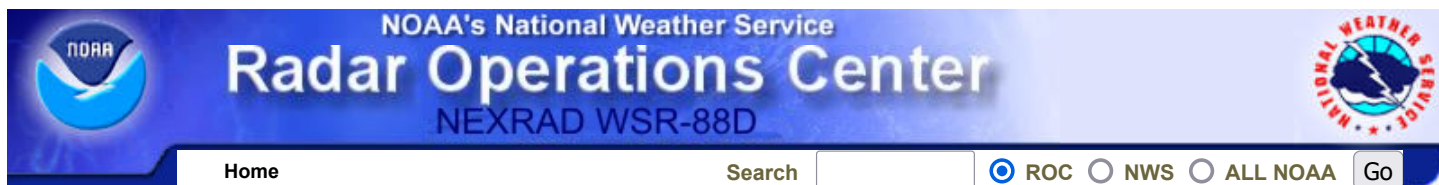
The pamphlet form of Resolution No. 2022-~~A-3~~ including the Resolution and a cover sheet thereof was prepared, a copy of such resolution was posted in the municipal building, commencing on May 11, 2022, and continuing for at least ten (10) days thereafter. Copies of such resolution were also available for public inspection upon request in the office of the Municipal Clerk.

DATED at Philo, Illinois, this 11<sup>th</sup> day of May, 2022.

  
\_\_\_\_\_  
Judy A. Kirby  
Village Clerk  
Village of Philo, Illinois

VOTING ON SAID RESOLUTION NO. 2022-R-3

Trustee	Aye	Nay
Tom Kelley, Trustee	<u>✓</u>	<u>                    </u>
Steve Messman, Trustee	<u>Absent</u>	<u>                    </u>
David Happ, Trustee	<u>✓</u>	<u>                    </u>
Pat Pioletti, Trustee	<u>✓</u>	<u>                    </u>
Rachael Garrett, Trustee	<u>✓</u>	<u>                    </u>
Paul Brady, Trustee	<u>Absent</u>	<u>                    </u>
Larry R. Franks, President	<u>                    </u>	<u>                    </u>



Social Media Dashboard

## About The ROC

[Field Requirements Branch](#)
[Engineering](#)
[Operations](#)
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[Level II Data](#)
[Level III Data](#)
[Related Links](#)
[ROC Papers](#)
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[Site ID / Maps](#)
[Software Build Information](#)
[SPG](#)
[System Documentation](#)
[WSR-88D Program](#)
[Questions & Comments](#)

## HOW THE ROC ANALYSES WIND TURBINE SITING PROPOSALS

The ROC learns of wind farm developments through both formal and informal methods. Formally, the Department of Commerce's National Telecommunications and Information Administration (NTIA) acts as clearinghouse for developers to voluntarily submit wind farm proposals for review by several federal agencies, including NOAA. This formal process is recognized by the wind industry in the American Wind Energy Association's (AWEA) Wind Siting Handbook (AWEA 2008). Informally, the ROC occasionally receives notifications directly from developers, or learns of wind farm projects from local forecast offices who email news articles or web links to stories about planned wind farms. The ROC typically receives 10 to 15 notifications per month through the NTIA and 1 to 3 per month directly from developers or third parties. The ROC tries to proactively contact the developers if a third party notifies the ROC of a wind project that has the potential to significantly impact a nearby WSR-88D.

Based on the wind farm proposal the ROC receives, the ROC provides a case-by-case analysis of potential wind farm impacts on WSR-88D data and forecast/warning operations. The ROC uses a geographic information system (GIS) database that utilizes data from the Space Shuttle Radar Topography Mission to create a RLOS map with delineated areas corresponding to a turbine height of 160 m AGL. Multiple radar elevation angles are considered for projects close to the radar.

The ROC then performs a meteorological and engineering analysis using: distance from radar to turbines; maximum height of turbine blade tips; the number of wind turbines; radar azimuths impacted; elevation of the nearby WSR-88D antenna; an average 1.0 degree beam width spread; and terrain (GIS database). From this data the ROC determines if the main radar beam will intersect any tower or turbine blade based on the Standard Atmosphere's Refractive Index profile.

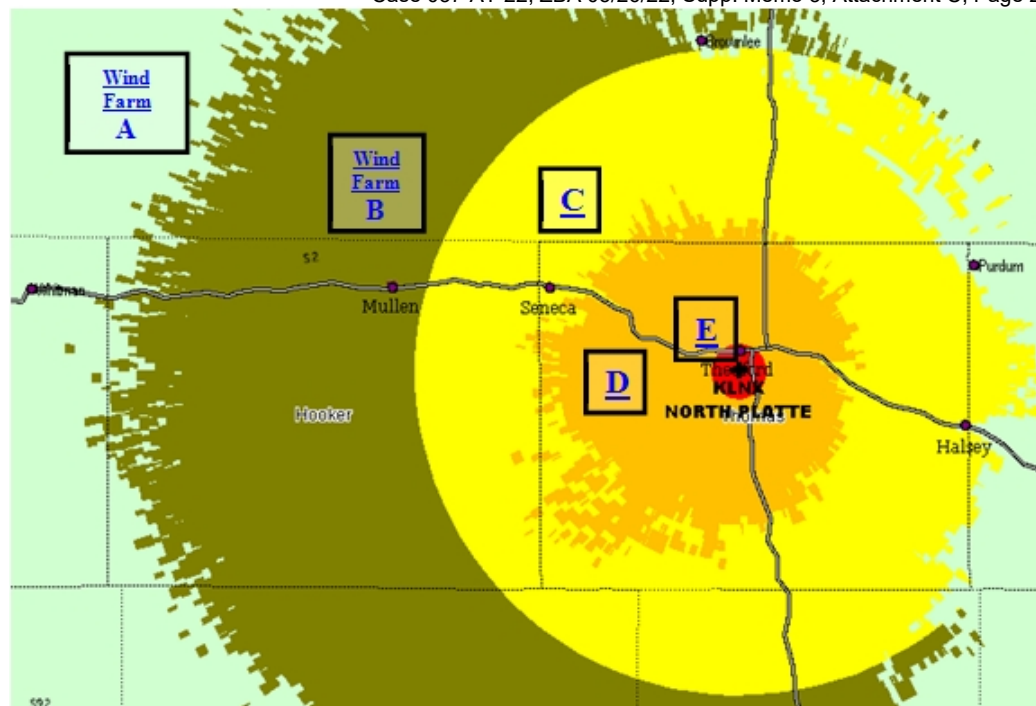
Finally, the ROC estimates operational impacts based on amount of turbine blade intrusion into RLOS, number of radar elevation tilts impacted by turbines, location and size of the wind farm, number of turbines, orientation of the wind farm with respect to the radar (radial vs azimuthal alignment), severe weather climatology, and operational experience. The ROC also compares the wind farm to other operational wind farms to estimate impacts.

The ROC has developed a four zone scheme that takes terrain, distance, and the number of elevation angles impacted into account while. The four zones use terminology that communicates to wind farm developers the desired action. These zones, defined below, are: no build, mitigation, consultation and notification.

1. The No Build Zone is a 4 km radius red circle around the WSR-88D. The ROC is requesting that developers do not build turbines in the RLOS within 4 km of the radar due to the potential for serious impacts, including turbine nacelles blocking the radar beam and potential receiver damage if sited in the radar's near field.
2. The Mitigation Zone, orange areas on the map, is the area between 4 km and 36 km where a 160-meter turbine would penetrate more than one elevation angle. Wind farms sited within the mitigation zone have the potential for moderate to high impacts. Therefore, the ROC will work with the developer to get detailed project information, do a thorough impact analysis, and discuss potential mitigation solutions.
3. The Consultation Zone, yellow areas on the map, is the area between 4 km and 36 km where a 160-meter turbine only penetrates the 1st elevation angle or when a 160-meter tall turbine will penetrate more than one elevation angle between 36 km and 60 km. Due to the increased potential for impact to operations the ROC is requesting consultation with the developer to track the project and acquire additional information for a thorough impact analysis.
4. The Notification Zone, green areas on the map, is the area between 36 km and 60 km where a 160-meter tall turbine will only penetrate one elevation angle, or any area beyond 60 km that a 160-meter tall turbine is in the RLOS. Since impacts are typically minimal beyond 60 km and workarounds are available for penetration of only one elevation angle, the ROC is making consultation optional; however, NOAA would still like to know about the project.

The figure depicts an example of the primary categories of wind farm analysis requests/replies.





An example radar line of sight (RLOS) map generated by the NEXRAD ROC for a wind farm analysis. Four hypothetical proposals: W, X, Y, and Z as described in the text are shown.

**Wind Farm A:** clearly out of the RLOS, would have no impact on the radar data, except in some anomalous propagation conditions, in which case impacts would be low.

**Wind Farm B:** Notification zone - low impact on the radar data if turbines were built in the western portion of the proposal area. The ROC would suggest that the developer locate most/all wind turbines in the western portion of the proposed area.

**Wind Farm C:** Consultation Zone - low impact on the radar data if turbines were built in the western portion of the proposal area. The ROC would suggest that the developer locate most/all wind turbines in the western portion of the proposed area.

**Wind Farm D:** Mitigation Zone - low to moderate impacts on the radar. The ROC would seek to consult with the developer to determine if there is flexibility to consider impact mitigation techniques and to ensure the developers are aware of potential impact on forecast/warning operations.

**Wind Farm E:** Encroaches into No-Build Zone. Potentially high impacts on the NEXRAD for the portion of the proposal in the red area. The ROC would seek to consult with the developer to ensure they are aware of the likely impact on forecast/warning operations, the NEXRAD system, and the wind turbines/personnel.

#### LINKS

- [INTRODUCTION](#)
- [HOW ROTATING WIND TURBINE BLADES IMPACT THE NEXRAD DOPPLER WEATHER RADAR](#)
- [HOW THE ROC ANALYSES WIND TURBINE SITING PROPOSALS](#)
- [RADAR IMAGERY](#)
- [FREQUENTLY ASKED QUESTIONS \(FAQs\)](#)
- [ADDITIONAL LINKS AND RESEARCH PAPERS](#)
- [FEEDBACK](#)

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