

APPENDIX E:
HISTORICAL AND CULTURAL DOCUMENTATION



December 6, 2010

Melissa Rossiter
 NEPA Document Manager
 U.S. Department of Energy
 1617 Cole Boulevard
 Golden, Colorado 80401

Dear Ms. Rossiter:

Re: Installation of a 300-foot wind turbine at 600 Lafayette Street, Archbold, Ohio
DOE/EA 1820

This is in response to correspondence dated October 26, 2010 (received on November 1, 2010) regarding Archbold Area Schools' proposal to install a 300-foot wind turbine at 600 Lafayette Street in Archbold, Ohio using American Recovery and Reinvestment Act grant funds originating from the U.S. Department of Energy (USDOE) that are administered by the Ohio Department of Development's State Energy Program. My comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

I have reviewed the information submitted – including a completed Project Summary Form, a report titled *Section 106 Compliance Report for Archbold Local Schools Wind Energy Project* written by architectural historian Stephen Mikesell of ICF International, and various attachments prepared by The Renaissance Group. Mr. Mikesell's report concludes that the proposed project will have no adverse effect on historic properties within the indirect Area of Potential Effects (APE). While properties within the indirect APE may be eligible for listing in the National Register of Historic Places (NRHP), they are not in close proximity to the proposed wind turbine site nor do they appear to have designed view elements facing it. It must be noted, however, that your submission does not contain analysis identifying the character-defining features of properties throughout the APE, so the significance of individual properties' viewsheds has not been formally established.

Mr. Mikesell's report dismisses the potential for the project resulting in effects on archaeological resources because "the parcel (on which the wind turbine will be installed) is so extensively modified." The only documentation provided in the report to substantiate the level of disturbance is a single photograph showing a school building, a football stadium, a parking lot, and a fire hydrant. In general, northwest Ohio is a very flat. Creation of athletic fields near the proposed wind turbine location may not have required a great deal of grading. Additional documentation of the level of disturbance within the project area would have been helpful. However, we have little reason to believe that archaeological survey of the project area would result in the identification of significant cultural resources. The nearest archaeological sites included in the Ohio Archaeological Inventory are approximately three miles to the southeast in Henry County, and the significance of these sites is difficult to gauge due to a lack of information recorded by the surveyors.

OHIO HISTORICAL SOCIETY

Ohio Historic Preservation Office

1982 Velma Avenue, Columbus, Ohio 43211-2497 ph: 614.298.2000 fx: 614.298.2037

www.ohiohistory.org

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In general, the analysis regarding the project's effects on historic properties contained within the completed Project Summary Form and Mr. Mikesell's report is sound. However, consideration should be given to a few items to ensure that material prepared by and on behalf of the USDOE for future submissions comports with 36 CFR Part 800:

- Submissions should identify properties within the APE that are eligible for listing in the National Register of Historic Places (NRHP) through application of the National Register Criteria for Evaluation. Mr. Mikesell's report identifies properties throughout the APE that are at least fifty years old, but does not actually evaluate the NRHP eligibility of these properties. They are alternatively referred to as "older" and "pre-1960" in Mr. Mikesell's report and as "potentially qualify(ing) for future listing" in the Project Summary Form completed by USDOE. Mr. Mikesell's report eschews firmly assessing the NRHP eligibility of properties in favor of explaining why the properties – regardless of their eligibility – will not be adversely affected by the proposed project. It is my opinion that 36 CFR Section 800.4(b)(1) allows the federal agency to skip application of NRHP criteria to a property within the APE only if it can document that the property will not be affected in any way by the project.
- Analysis of properties' historic significance should focus exclusively on application of the National Register Criteria for Evaluation. The PSF submitted for this project contains language that suggests that USDOE has established an entirely different set of criteria:

"...some unlisted properties were found (within the APE) that could potentially qualify for future listing, although none would be considered iconic, historically unique or rare samples or locations of reported strong significant historic activities."

The National Register Criteria for Evaluation do not require that eligible properties be "iconic", "historically unique", or "rare".

- The character-defining features of historic properties throughout the APE should be identified. For properties within the indirect APE, primary emphasis should be placed on assessing the significance of those aspects of integrity – setting, feeling, and association – that may be diminished by the introduction of a wind turbine into their viewsheds.
- Analysis of effects on historic properties should be strictly limited to the application of the criteria of adverse effect established at 36 CFR Section 800.5(a)(1). The third paragraph on Page 10 of Mr. Mikesell's report begins with a statement that helps to establish that effects resulting from the proposed project will not be adverse because they will not alter characteristics of historic properties that make them significant:

"...many properties within a two mile radius of the proposed tower do not derive their significance from the absence of tall structures and visual intrusions."

However, the next sentence appears to apply a greater threshold for adverse effects than that established in 36 CFR Section 800.5(a)(1):

"Therefore, it is unlikely that construction of the proposed project would diminish the setting for one of the properties within that radius and render it ineligible for listing in the National Register."

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It is not necessary for a historic property to be "render(ed) ineligible for listing in the National Register" for the criteria of adverse effects to be found applicable.

- Existing modern viewshed elements may need to be recognized as compounding the visual effect resulting from wind turbine installation, not diminishing it. On numerous occasions Mr. Mikesell's report references existing communications towers nearby and opines that they will be more dominant features in the viewshed of potentially historic properties than the proposed wind turbine. Someone experiencing the viewshed from an historic property will not see *either* the communication towers *or* the wind turbine; rather he will see all of them. When seen together they may have a more significant impact on a historic property's integrity than when viewed separately.

Taking into consideration the small number of previously surveyed properties within two miles of the project area, the low density of the built environment throughout the APE, the distance between the proposed turbine location and properties that may be eligible for listing in the NRHP, and the lack of concern about the effects of the proposed turbine on historic properties expressed by local residents, I concur with your finding that the proposed project will have no adverse effects on historic properties. No further coordination with this office is necessary unless there is a change in the project. If historic properties are discovered during project implementation, the Ohio Historic Preservation Office must be notified pursuant to 36 CFR Section 800.13.

If you have any questions, please contact me by phone at (614) 298-2000 or by email at jcook@ohiohistory.org. Thank you for your cooperation.

Sincerely,



Justin M. Cook, History Reviews Manager
Resource Protection and Review

Copy: James Huth, Advanced Energy Program Manager, Ohio Energy Resources Division,
Ohio Department of Development, Post Office Box 1001, Columbus, Ohio 43216-1001
Stephen D. Mikesell, Senior Architectural Historian, ICF International, 630 K Street, Suite 400,
Sacramento, California 95814



Department of Energy

Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

October 26, 2010

Ms. Laura Segna
Resource Protection and Review
Ohio Historic Preservation Office
1982 Velma Avenue
Columbus, Ohio 43211-2497

RE: Archbold Local Schools Wind Turbine Project (DOE/EA - 1820)
600 Lafayette Street, Archbold, Fulton County, Ohio

Dear Ms. Segna:

The U.S. Department of Energy (DOE) has granted the Ohio Department of Development (ODOD) State Energy Program (SEP) funding through the Energy Policy and Conservation Act, as amended (43 U.S.C § 6321 et seq. with funds appropriated under the American Reinvestment and Recovery Act of 2009. ODOD selected the Archbold School District to receive a grant through this program to facilitate the construction and operation of a single 750 kilowatt wind turbine that would stand approximately 300 feet at its tallest extent and is intended to provide electricity to Archbold High School Campus. The DOE funding of the wind turbine represents the proposed federal undertaking.

This letter initiates consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations 36 CFR Part 800 "Protection of Historic Properties" (Section 106) for construction of the wind turbine project. An OHPO Section 106 Review – Project Summary Form is enclosed for your reference (Enclosure A).

To assist in the development of the Section 106 consultation materials, the DOE has enlisted the assistance of Mr. Stephen D. Mikesell, a senior architectural historian who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) in architectural history, history or archeology. Mr. Mikesell's *Section 106 Compliance Report for Archbold Local Schools Wind Energy Project* (report), utilized data gathered by The Renaissance Group (TRG) related to historic properties registered or eligible for listing on the National Register of Historic Places within the Area of Potential Effect (Enclosure B).



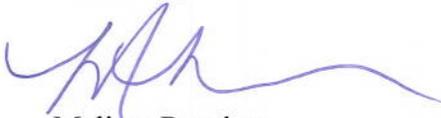
Although there are some cultural resources in the indirect APE, DOE has determined that the proposed undertaking will result in No Adverse Effect on NRHP listed or eligible properties or archeological resources. If you agree with DOE's determination that there will be no effects to historic or archaeological resources, please concur, as your concurrence is required for DOE's record of compliance under Section 106.

DOE is preparing an Environmental Assessment (EA) for the proposed project in compliance with the National Environmental Policy Act (NEPA). As part of the public notification for the EA for the proposed project, public participation will be integrated into the NEPA process. Documentation of DOE Section 106 consultation with OHPO will be included in the EA, which will be open for public comment for 15 days. All notices of the EA public comment period will reference the public's ability to comment on the proposed Undertaking's potential effects on NRHP-listed and -eligible properties. DOE finds this proposed public participation process to be consistent with 36 CFR 800.2(d).

Should you have any questions about this information, please contact me at Melissa.Rossiter@go.doe.gov or 720-356-1566.

Thank you in advance for your consideration.

Sincerely,



Melissa Rossiter
NEPA Document Manager
U.S. Department of Energy
1617 Cole Boulevard
Golden, CO 80401

Attachments

cc: Mark Epstein, Department Head, OHPO
Franco Ruffini, Deputy SHPO, OHPO
James Huth, Advanced Energy Program Manager, ODOD
Aaron Godwin, Owners Representative, Renaissance Group
Dave Deskins, Archbold Area Schools Superintendent
Steve Mikesell, ICF International



**OHIO HISTORIC PRESERVATION OFFICE:
RESOURCE PROTECTION AND REVIEW**

Section 106 Review - Project Summary Form

For projects requiring a license from the Federal Communications Commission, please use FCC Forms 620 or 621. **DO NOT USE THIS FORM.**

SECTION 1: GENERAL PROJECT INFORMATION

All contact information provided must include the name, address and phone number of the person listed. Email addresses should also be included, if available. Please refer to the Instructions or contact an OHPO reviewer (mailto:Section106@ohiohistory.org) if you need help completing this Form. Unless otherwise requested, we will contact the person submitting this Form with questions or comments about this project.

<p>Date: October 22, 2010</p> <p>Name/Affiliation of person submitting form: Melissa Rossiter, NEPA Document Manager, Department of Energy</p> <p>Mailing Address: 1617 Cole Boulevard, Golden, CO 80401</p> <p>Phone/Fax/Email: 720-356-1566/Melissa.Rossiter@go.doe.gov</p>

A. Project Info:

1. This Form provides information about:

New Project Submittal:

YES NO

Additional information relating to previously submitted project:

YES NO

OHPO/RPR Serial Number from previous submission:

2. Project Name (if applicable):

Archbold Area Schools Wind Energy Project

3. Internal tracking or reference number used by Federal Agency, consultant, and/or applicant to identify this project (if applicable):

DOE/EA 1820

B. Project Address or vicinity:

600 Lafayette Street

C. City/Township:

Archbold

D. County:

Fulton

E. Federal Agency and Agency Contact. *If you do not know the federal agency involved in your project, please contact the party asking you to apply for Section 106 Review, not OHPO, for this information. HUD Entitlement Communities acting under delegated environmental review authority should list their own contact information.*

Melissa Rossiter

NEPA Document Manager

Department of Energy

1617 Cole Boulevard

Golden, CO 80401

Melissa.Rossiter@go.doe.gov

F. Type of Federal Assistance. *List all known federal sources of federal funding, approvals, and permits to avoid repeated reviews.*

Grant, American Recovery and Reinvestment Act; DOE State Energy Program

G. State Agency and Contact Person (if applicable):

James Huth

Advanced Energy Program Manager

Ohio Energy Resources Division

James.Huth@development.ohio.gov

H. Type of State Assistance:

Same as above, assistance is provided by Federal Government but being distributed by the State through the State Energy Program

I. Is this project being submitted at the direction of a state agency **solely** under Ohio Revised Code 149.53 or at the direction of a State Agency? *Answering yes to this question means that you are sure that no federal funding, permits or approvals will be used for any part of your project, and that you are seeking comments only under ORC 149.53.*

YES NO

J. Public Involvement- Describe how the public has been/will be informed about this project and its potential to affect historic properties. Please summarize how they will have an opportunity to provide comments about any effects to historic properties. (This step is required for all projects under 36 CFR § 800.2):

Project has been in the local spotlight for the last 18 months.

The Fulton County Historical Society has been contacted and assisted in the identification of any Historical Properties within the APE. The project has been reviewed and available for public comment in both School Board and Village Planning and Zoning meetings. The project has been extensively covered in the local media. See Attachment 3 for full list and copy of all articles and public involvement.

- K. Please list other consulting parties that you have contacted/will contact about this project, such as Indian Tribes, Certified Local Governments, local officials, property owners, or preservation groups. (See 36 CFR § 800.2 for more information about involving other consulting parties). Please summarize how they will have an opportunity to provide comments:

The following parties were notified of the project through the Department of Energy, Environmental Assessment Process. They were allowed an opportunity to comment on the project at that time and will be notified again when the draft EA is released to allow for further comment.

**Steven Brown, Director
Fulton County Regional Planning Director
152 South Fulton Street, Suite 230
Wauseon, Ohio 43567**

**Lisa Arend, Director
Fulton County Economic Development
152 South Fulton Street, Suite 280
Wauseon, Ohio 43567-1726**

**Fulton County Commissioners
152 South Fulton Street
Wauseon, Ohio 43567**

**Jim Wyse, Mayor
Village of Archbold
Post Office Box 406
300 North Defiance
Archbold, Ohio 43502**

**German Township Board of Trustees
5001 State Route 66
Archbold, Ohio 43502**

**Fulton County Historical Society
229 Monroe Street**

Wauseon, Ohio 43567

Tribes:

- Bad River Band of the Lake Superior Tribe of Chippewa Indians**
- Citizen Potawatomi Nation**
- Forest County Potawatomi Community**
- Keweenaw Bay Indian Community**
- Little Traverse Bay Bands of Odawa Indians**
- Pokagon Band of Potawatomi Indians**
- Seneca-Cayuga Tribe**
- Turtle Mountain Band of Chippewa Indians**
- Bay Mills Indian Community**
- Hannahville Indian Community**
- Lac Courte Oreilles Band of Lake Superior Chippewa**
- Match-e-be-nash-she-wish Band of Pottawatomi**
- Prairie Band of Potawatomi Nation**
- St. Croix Chippewa Band of Lake Superior Chippewa**
- Sokaogon Chippewa Community**
- Wyandotte Tribe of Oklahoma**
- Chippewa-Cree Tribe of the Rocky Boy's Reservation**
- Delaware Tribe of Indians**
- Nottawaseppi Huron Band of the Potawatomi Indians**
- Little River Band of Ottawa Indians**
- Ottawa Tribe of Oklahoma**
- Red Cliff Band of Lake Superior Chippewa**
- Seneca Nation of Indians**
- Tonawanda Seneca Nation**

SECTION 2: PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Provide a description of your project, its site, and geographical information. You will also describe your project's Area of Potential Effects (APE). Please refer to the Instructions or contact an OHPO reviewer if you need help with developing the APE or completing this form.

For challenging projects, provide as much information as possible in all sections, and then check the box in Section 5.A. to ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties or if there may be challenging procedural issues related to your project. Please note that providing information to complete all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

A. Does this project involve any Ground-Disturbing activity: YES NO
(If **Yes**, you must complete all of Section 2.A. If **No**, proceed directly to Section 2. B.)

1. General description of width, length and depth of proposed ground disturbing activity:

The turbines foundation will not be larger than 40' x 40' (or 1600 square feet). The base of the foundation will likely be 20' under the finished ground level. Other excavation will include electrical and data conduit runs, not to exceed 1,000' long x 2' wide x 3' deep for up to an additional 2,000 square feet of disturbed land. Of all of this, only a foundation pier, not to be larger than 16' x 16' will be visible above the finished ground (or 256 square feet).

2. Narrative description of previous land use and past ground disturbances, if known:

The previous use of the land includes two (2) school buildings and multiple other athletic fields and complex. All of the proposed ground disturbance have been previously disturbed during prior construction projects on the campus.

3. Narrative description of current land use and conditions:

The land is currently used by Archbold's Middle and High School and their respective athletic complexes. The conditions include several built structures along with parking lots and playing fields. All of the proposed ground disturbance have been previously disturbed during prior construction on the campus.

4. Does the landowner know of any archaeological resources found on the property?
YES NO If yes, please describe:

B. Submit the exact project site location on a USGS 7.5-minute topographic quadrangle map for all projects. Map sections, photocopies of map sections, and online versions of USGS maps are acceptable as long as the location is clearly marked. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map:

1. USGS Quad Map Name:

Archbold USGS Quad Map

2. Township/City/Village Name:

Archbold, Ohio

See Attachment 2

C. Provide a street-level map indicating the location of the project site; road names must be

identified and legible. Your map must show the exact location of the boundaries for the project site. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map:

- D. Provide a verbal description of the APE, including a discussion of how the APE will include areas with the potential for direct and indirect effects from the project. Explain the steps taken to identify the project's APE, and your justification for the specific boundaries chosen:

See Enclosure B - Section 106 Compliance Report for Archbold Local Schools Wind Energy Project

- E. Provide a detailed description of the project. This is a critical part of your submission. Your description should be prepared for a cold reader who may not be an expert in this type of project. The information provided must help support your analysis of effects to historic properties, not other types of project impacts. Do not simply include copies of environmental documents or other types of specialized project reports. If there are multiple project alternatives, you should include information about all alternatives that are still under active consideration:

See Attachment 1 - Project Overview

SECTION 3: IDENTIFICATION OF HISTORIC PROPERTIES

Describe whether there are historic properties located within your project APE. To make that determination, use information generated from your own Background Research and Field Survey. Then choose one of the following options to report your findings. Please refer to the Instructions and/or contact an OHPO reviewer if you are unsure about how to identify historic properties for your project.

If you read the Instructions and you're still confused as to which reporting option best fits your project, or you are not sure if your project needs a survey, you may choose to skip this section, but provide as much supporting documentation as possible in all other Sections, then check the box in Section 5.A. to request preliminary comments from OHPO. After reviewing the information provided, OHPO will then offer comments as to which reporting option is best suited to document historic properties for your project. Please note that providing information to complete this Section will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

Recording the Results of Background Research and Field Survey:

- A. **Summary of discussions and/or consultation with OHPO** about this project that demonstrates how the Agency Official and OHPO have agreed that no Field Survey was necessary for this project (typically due to extreme ground disturbance or other special circumstances). Please **attach copies** of emails/correspondence that document this agreement. You must explain how the project's potential to affect both archaeological and historic resources were considered.
- B. **A table that includes the minimum information** listed in the OHPO Section 106 Documentation Table (which is generally equivalent to the information found on an inventory form). This information must be printed and mailed with the Project Summary Form. To provide sufficient information to complete this Section, you must also include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated in the project APE.
- C. **OHI (Ohio Historic Inventory) or OAI (Ohio Archaeological Inventory) forms-** New or updated inventory forms may be prepared using the OHI pdf form with data population capabilities, the Internet IForm, or typed on archival quality inventory forms. To provide sufficient information to complete this Section, you must include summary observations

from your field survey and background research. You must also include eligibility determinations for each property that was evaluated in the project APE

- D. A historic or archaeological survey report** prepared by a qualified consultant that meets professional standards. The survey report should meet the Secretary of the Interior's Standards and Guidelines for Identification and OHPO Archaeological Guidelines. You may also include new inventory forms with your survey, or update previous inventory forms. To complete this section, your survey report must include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated within the APE.
- E. Project Findings.** Based on the conclusions you reached in completing Section 3, please choose one finding for your project. There are (mark one):
- Historic Properties Present in the APE:
 No Historic Properties Present in the APE:

SECTION 4: SUPPORTING DOCUMENTATION

This information must be provided for all projects.

- A.** Photographs must be keyed to a street-level map, and should be included as attachments to this application. Please label all forms, tables and CDs with the date of your submission and project name, as identified in Section 1. You must present enough documentation to clearly show existing conditions at your project site and convey details about the buildings, structures or sites that are described in your submission. Faxed or photocopied photographs are not acceptable. See Instructions for more info about photo submissions or 36 CFR § 800.11 for federal documentation standards.
1. Provide photos of the entire project site and take photos to/from historic properties from/towards your project site to support your determination of effect in Section 5.
 2. Provide current photos of all buildings/structures/sites described.
- B.** Project plan, specifications, site drawings and any other media presentation that conveys detailed information about your project and its potential to affect historic properties.
- C.** Copies or summaries of any comments provided by consulting parties or the public.

SECTION 5: DETERMINATION OF EFFECT

- A. Request Preliminary Comments.** For challenging projects, provide as much information as possible in previous sections and ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties, if the public has concerns about your project's potential to affect historic properties, or if there may be challenging procedural issues related to your project. Please be aware that providing information in all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

1. We request preliminary comments from OHPO about this project:
 YES NO

2. Please specify as clearly as possible the particular issues that you would like OHPO to examine for your project (for example- help with developing an APE, addressing the concerns of consulting parties, survey methodology, etc.):

B. Determination of Effect. If you believe that you have gathered enough information to conclude the Section 106 process, you may be ready to make a determination of effect and ask OHPO for concurrence, while considering public comments. Please select and mark one of the following determinations, then explain the basis for your decision on an attached sheet of paper:

- No historic properties will be affected** based on 36 CFR § 800.4(d) (1). Please explain how you made this determination:
- No Adverse Effect** [36 CFR § 800.5(b)] on historic properties. This finding cannot be used if there are no historic properties present in your project APE. Please explain why the Criteria of Adverse Effect, [36 CFR Part 800.5(a) (1)], were found not to be applicable for your project:

Although no Federally or Locally listed properties were found within the 2 Mile APE, three (3) State listed properties and some unlisted properties were found that could potentially qualify for future listing, although none would be considered iconic, historically unique or rare samples or locations of reported strong significant historic activities. Of these properties, none would be affected adversely by the installation of the wind turbine on the Archbold Schools campus. None of these properties would receive noise from the turbine (see attached Attachment 7, "Ambient and Turbine Produced Sound Level Analysis") or flicker from the turbine (see Attachment 9 "Shadow Flicker Analysis"). None of the properties are within close proximity to the site. None of the properties have designed view elements facing the wind turbine site. None of the properties have a clear view of the turbine and of those that could potentially see the turbine from some location on their property, the turbine would only represent a partial view/minor visual element above the existing natural and environment horizon elements such as telephone poles and trees. (See attached Attachment 8, "Turbine Visualization and Photo Analysis Report" for sample turbine views)

The nearest Federally listed property is 2.94 miles from the site and will not be able to see the turbine.

The nearest State listed properties are over 1.5 miles from

the site but less than 2 miles and are all in a group dominated by a modern industrial complex. These locations are also almost in direct alignment with the closer existing 285' communications tower and the turbine site making the communications tower the substantially dominant visual elements (See the Appendix 8, "Turbine Visualization and Photo Analysis Report" particularly Visualization #4 for comparative views and view angles from a location even closer, 1.2 miles from the turbine site).

At 1.5 miles, even if the turbine was fully visible through an unobstructed view on level terrain, due to perspective, the turbine will only appear to be .9 inches tall at a distance of 2 feet from the viewer's eye, barely perceptible on the horizon. For almost all locations, some obstructions exist taking the likely visibility from no visibility to less than .9 inches at this distance.

No archeological or native american sites were reported or found.

the project was unanimously approved by the local planning and zoning board.

- Adverse Effect** [36 CFR § 800.5(d) (2)] on historic properties. Please explain why the criteria of adverse effect, [36 CFR Part 800.5(a) (1)], were found to be applicable to your project. You may also include an explanation of how these adverse effects might be avoided, reduced or mitigated:

Please print and mail completed form and supporting documentation to:

*Ohio Historic Preservation Office
Attn: Mark J. Epstein, Department Head
Resource Protection and Review
1982 Velma Avenue
Columbus, OH 43211-2497*

**ARRA GRANT PROGRAM QUESTIONNAIRE
OHIO STATE HISTORIC PRESERVATION OFFICE (SHPO)**

This Section to be Completed by Grantee

Grantee Name: Archbold Area Schools
 Contact Person: Dave Deskins Title: Superintendent
 Aaron Godwin Title: Owner's Representative
 E-Mail Address: Archbold_s@nwoca.org; AAron@ConserveFirst.com

Project Address: 600 Lafayette Street, Archbold, Ohio 43502

Any Alteration of Structure or Site?: Building Structure/ Site is:
 (Check One if Applicable)

- 50 years of age or older?
 Listed on the National Register of Historic Places?
 Located in a historic district?

If you answered positively to any of the above questions,
 complete **Attachment D - Historic Preservation Compliance Form**

Date: May 5, 2010

Advise Effect (36 CFR § 800.5(d) (2)) on historic properties. Please explain why the nature of adverse effect (36 CFR Part 800.5(a) (7)) was found to be applicable to your project. You may also include an explanation of how these adverse effects might be avoided, reduced or mitigated.

Please print and mail completed form and supporting documentation to:

Ohio Historic Preservation Office
 Attn: Mark J. Egan, Department Head
 Resource Protection and Review
 1282 Vienna Avenue
 Columbus, OH 43211-5487

Section 106 Compliance Report for Archbold Local Schools Wind Energy Project

Archbold, Fulton County, Ohio

October 22, 2010

Prepared for: U.S. Department of Energy

Prepared by: Stephen D. Mikesell, ICF International



ICF
INTERNATIONAL

1. Purpose of Document

This document was prepared on behalf of the U.S. Department of Energy (DOE), for an Ohio Department of Development (ODOD) State Energy Program (SEP) grant for a single wind turbine for Archbold Area Schools (proposed project or proposed turbine). This report is intended to achieve Section 106 compliance for DOE for their funding of the proposed wind turbine project at the Archbold High School football field. This report is a focused Section 106 compliance document and relies on technical studies prepared for this project by The Renaissance Group (TRG), who are acting as the Owner's Representative for Archbold Area Schools. Also included in this submission are numerous other documents that were prepared as appendices for the National Environmental Policy Act (NEPA) compliant Environmental Assessment (EA) that DOE is preparing for this project. While all of the documents are attached to this Section 106 submission, the most pertinent of the documents which were used in this evaluation are referenced herein and located in Enclosure 1. The most relevant attachments are: Attachment 5, Archbold Project Area Parcel Maps, and Attachment 6, Photo log of Non-Listed Properties. Also extremely useful are Attachment 8, the Visualization Report, which is used in the current report to analyze visual impacts, and Attachment 7, the Noise Analysis, used in the current report to analyze the potential for noise impacts, and Attachment 9, the Flicker Analysis, used in the current report to analyze shadow flicker impacts. The findings of these technical reports are summarized below to analyze the potential for adverse effects.

2. Qualifications of Preparer

This Section 106 Compliance Document was prepared by Stephen D. Mikesell. Mr. Mikesell is a senior architectural historian with ICF International. He has worked 30 years in the Section 106 compliance field. Before coming to ICF in February 2010, he worked for nine years as the Deputy State Historic Preservation Officer for the State of California. Between 1991 and 2001, he was a partner in a mid-sized cultural resource management firm, specializing in Section 106 compliance. Before 1980 and 1991, he worked as an architectural historian with the State of California, first with the State Historic Preservation Office (SHPO) and later with the California State Department of Transportation.

3. Summary of Findings

Based on a review of the documents and data provided by TRG, DOE has determined that the Archbold Local Schools Wind Energy Project will result in No Adverse Effect to properties that might qualify for listing in the National Register of Historic Places. Because the Area of Potential Effects for this undertaking is so large – a two mile radius, or four mile diameter, from the turbine site – there are more than 100 potentially eligible properties within the APE. For the purpose of analyzing potential effects to historic properties, this report assumes that all pre-1960s properties are eligible for listing in the National Register of Historic Places (NRHP). This assumption applies only to this proposed undertaking. This report concludes that, even if every older property was National Register eligible, there would not be an adverse effect to any historic properties.

4. Project Description

DOE has provided an SEP grant to ODOD who selected Archbold Area Schools to receive a portion of its SEP grant. DOE would authorize the recipient to continue to expend Federal funding to design, permit, and construct the proposed project for which an EA is underway. The proposed project is a single 750-kilowatt wind turbine, along with approximately 1,000 feet of associated electrical underground transmission equipment, adjacent to Archbold High School at 600 Lafayette Street, Archbold, Ohio. The proposed wind turbine would provide 750 kW of renewable energy to fulfill about 45 percent of Archbold High School's annual electricity demand. The proposed turbine would be an Aeronautica 750 kW turbine mounted on a tower that is 213 feet tall, with a 177 feet rotor diameter. At its tallest extent, when a rotor is straight up, the total height of the proposed project would be about 300 feet. (Attachment 1 contains a more detailed project overview).

The turbine would be located at the west edge of the Archbold High School campus at the southwest corner of the school's football field. Attachment 2 contains the site location on a USGS Topographic Map.

The proposed project is an undertaking (36 CFR 800) because the majority of funding derives from a American Recovery and Reinvestment Act funded SEP grant, which is appropriated to the DOE and distributed through the state of Ohio.

5. Consulting Party Participation

As part of the public notification for the EA for the proposed project, public participation as allowed 36 CFR Part 800 will be integrated into the NEPA process. Documentation of DOE Section 106 consultation with OHPO will be included in the EA, which will be open for public comment for 15 days.

The following organizations were notified of the project through the DOE EA scoping process and will be invited to comment on the Draft EA when it is released to the public:

- Fulton County Historical Society
- Fulton County Commissioners
- Village of Archbold
- German Township Board of Trustees

According to Indian Entities Recognized and Eligible to Receive Services from the US Bureau of Indian Affairs in Federal Register, Volume 72, Number 55 dated March 22, 2007 (72 FR 13648) and the National Association of Historic Preservation Officers at <http://www.nathpo.org>, there are no Federally-recognized Tribes in the State of Ohio, nor is there a Tribal Historic Preservation Officer for the State of Ohio. However, DOE has provided the Notice of Availability to 57 tribal representatives that are regularly notified of Federal Actions in the state of Ohio.

Prior to this submission, the project was reviewed and made available for public comment at both School Board and Village Planning and Zoning meetings. The project has also been extensively covered in the local media. Attachment 3 contains a list of public meetings and newspaper articles related to the proposed project.

6. Inventory and Evaluation

The proposed turbine will physically affect a very small piece of land – the 256 square foot foundation for the turbine and associated equipment, are expected to comprise less than one acre. The actual foundation will permanently affect approximately 256 square feet. The proposed turbine has the potential to have visual and noise impacts to properties far from the school grounds where the turbine would be installed.

a. Area of Potential Effect

The Archbold turbine project has two Areas of Potential Effect, or APEs. First, direct APE, is the area of actual ground disturbance, the 1,600 square foot area that would be excavated for the 256 square foot foundation and an additional 2,000 feet that would be excavated for the associated underground electrical transmission equipment. The staging area would be approximately two acres, but no other excavation would take place within this area. Second is indirect APE. There is no definitive rule for determining the indirect APE for a wind turbine, which can create both visual and audible effects on the adjacent properties. The proposed undertaking involves installation of a tower that is approximately 213 feet tall, with a total height of approximately 300 feet when the rotor is vertical. As a conservative measure, the proponent has elected to study a two mile APE for indirect effects. This indirect APE was developed based on the height of the proposed project, the surrounding topography, tree cover, and urban forest in the vicinity of the proposed project and simulated visualizations of the proposed project. Noise and flicker effects are quite localized and do not extend far beyond the school property. The two mile APE was selected as the maximum distance from which the proposed project will be seen.

b. Inventory of Properties Identified

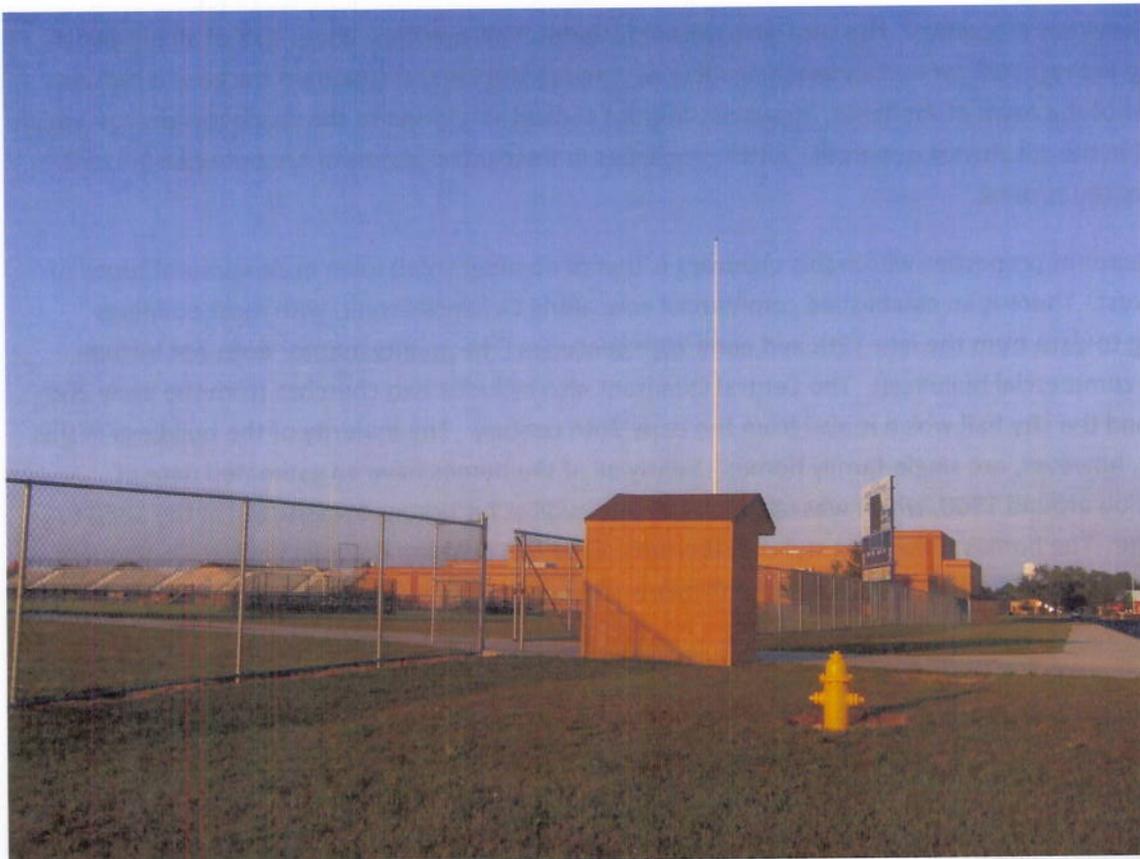
There are no historic properties previously listed in or determined eligible for listing in the National Register of Historic Places within the direct or indirect APEs for this undertaking. The absence of NRHP designated properties, however, does not indicate that no properties could be listed or determined eligible. Rather, it suggests an absence of activities that might drive such listings or determinations of eligibilities. Archbold is a small farming community of about 4,200 people and has likely been bypassed by many of the activities from which determinations of eligibility typically arise, such as Tax Act projects, federally-funded highway projects, etc.

Three properties listed on the State of Ohio Historic Registry of Properties are located within the two mile indirect APE established for this project. All three properties are located approximately 1.5 miles to the northeast of the proposed turbine site, at which distance the turbine would barely be visible and

would appear very small on the horizon if visible at all. Photographs of these properties and their locations are contained in Attachment 4.

c. National Register eligibility of properties, direct APE

There are no National Register-listed properties within the direct APE for this undertaking. The direct APE, as discussed earlier, is the construction zone for the project. The direct APE is illustrated in the photograph below. This parcel has been used for decades as a football field for the local high school and has been graded and otherwise disturbed for construction of the field. In terms of potential for buried properties (e.g. archaeological sites), the parcel is so extensively modified, as shown in the photograph, that there is no reason to suspect that an intact archaeological site exists at this property.



d. National Register eligibility of properties, indirect APE

To determine the potential for adverse effects to historic properties, TRG inventoried all buildings and structures built before 1960, located within the 2 mile radius from the proposed project. The results of that inventory may be seen by using Attachment 5 "Archbold Project Area Parcel Maps," and Attachment 6, "Photo log of Archbold Non-Listed Properties." Each entry in Attachment 6 includes a photograph of the property as well as the estimated date of construction provided by the local auditor. Each entry also includes a "Located in" field, with the name of the quadrant in which that property is

located and a Map ID number, which corresponds to a number highlighted on the quadrant map in which it is located. The distance from the proposed turbine for each property is indicated in the table at the end of Attachment 6.

It will be observed that there are several hundred properties shown in Attachment 6. These properties fall into two categories: urban use properties (single family homes, downtown commercial properties, and churches) found in the Central and North Central Quadrants; and rural properties (nearly all of them farmhouses and farm structures), located within the other quadrants. The qualities of these properties differ considerably from one quadrant to the next. The discussion below summarizes the properties within each quadrant. Attachment 6 contains photographs and more specific information about the properties discussed below.

Central Quadrant Properties: The central quadrant includes 94 properties, about half of all properties within the indirect APE for this undertaking. It is designated the Central Quadrant because it includes the center of the town of Archbold. However, it is not central in relation to the proposed project, which is located in the southwest quadrant. All 94 properties in the central quadrant are between 1.5 to 2 miles from the turbine.

The character of properties within this quadrant is that of an older small town in agricultural zones of the Midwest. There is an established commercial core along Defiance Street, with most buildings appearing to date from the late 19th and early 20th centuries (The county auditor does not include dates for commercial buildings). The Central Quadrant also includes two churches from the early 20th century and the city hall which is also from the early 20th century. The majority of the buildings in this quadrant, however, are single-family homes. Nearly all of the homes have an estimated date of construction around 1900, which was used by the local auditor for homes constructed in the 1880 to 1910 range. The homes reflect the styles of the turn of the last century: Colonial Revival, Foursquare, Classical Revival, and others. The photograph below shows the old commercial section of town.



North Central Quadrant: The North Central Quadrant is due north of the Central sheet and is a transition from the older neighborhoods of the Central area to new suburban areas and farmland north of the old downtown. There are 32 pre-1960 properties in this area. Most are single-family homes that resemble those in the Central Quadrant in terms of date of construction and reliance upon styles

popular in the early 20th century. This quadrant also includes two churches and two small farms at the northern extreme. These properties are between 1.5 to 2 miles from the proposed turbine.

Northwest Quadrant Properties: There are 15 pre-1960 properties in this quadrant, all of them farm complexes. Twelve of these properties are 2 or more miles away from the turbine site; the other two are between 1.5 to 2 miles distant from the turbine location.

Northeast quadrant properties: There are only three pre-1960 properties in this quadrant: a farm, a church, and a single family residence, all from the early 20th century. They are all about 1.5 miles from the turbine location.

Southwest quadrant properties: There are 8 pre-1960 properties within this quadrant. Six are farms, joined by a church and a cemetery. They are all located about 1.5 miles from the turbine site.

Southeast quadrant properties: The southeast quadrant includes 7 older properties, all of them farms. Although the turbine site is generally on the southeastern edge of Archbold, these farms are considerably distant from it. Two properties are about 2 miles distant and the others are about 1.5 miles away.

7. Application of Criteria of Adverse Effect

In applying the Criteria of Adverse Effect, it is useful to consider both the nature of the potential impacts and the character of the resources, specifically the qualities that make them eligible for listing in the National Register. The definition of an adverse effect in 36 CFR 800.5 (a) (1) is when “an undertaking may alter, directly or indirectly, any of the characteristics that qualify the property for listing in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling or association.”

The ACHP regulations also provide specific examples of adverse effects. These examples will be discussed separately below, as there are different examples that might apply to potential impacts from ground disturbance, noise, and visual impacts.

a. Assessment of impacts from ground disturbance.

As noted in Section 4 above, there are no buildings at the project site and there is no reason to suspect that any intact archaeological sites could have survived the many years of farming and the more recent construction activity arising from conversion of this site from farming to school uses. DOE has determined that the proposed undertaking will have No Effect within the direct APE because there are no properties there that qualify for listing in the National Register and no intact archeological sites.

b. Assessment of impacts from noise.

Potential noise impacts for this proposed undertaking are discussed in detail in Attachment 7, “Archbold Local Schools Wind Turbine Project Ambient and Turbine Produced Sound Level Analysis.” The analysis concludes two things which are pertinent to a potential adverse effect. First, the ambient noise level in

the immediate vicinity of the turbine site is relatively high, owing to the presence of a busy rail line nearby, as well as truck and automobile traffic. Second, it concludes that increases of 50 dB attributable to the turbine would be restricted to a radius of about 200 feet from the turbine, which would restrict this impact to the playfield site and adjacent parking lot in which the turbine will be constructed.

Relying upon the analysis in Attachment 7, it is concluded that there will be No Effect to historic properties owing to auditory impacts associated with the installation of the proposed wind turbine.

c. Assessment of impacts from visual impacts.

Visual impacts vary according to at least three variables: the distance of a historic property from the visual intrusion; intervening barriers that might diminish visual impacts; and the degree to which the significance of a property hinges upon the presence or absence of visual intrusions.

The potential visual effects from the proposed project are simulated in a series of photo simulations in Attachment 8, "Archbold Local Schools Wind Turbine Project Turbine Visualization and Photo Analysis." These simulations take into account the distance from the turbine and intervening barriers. It does not take into account the degree to which the potential significance of historic properties hinge upon the absence of visual intrusions which is discussed in this report.

As noted in Section 5 above, the potential historic resources within the indirect APE fall into two categories: urban properties which are mapped on the Central and North Central Quadrants; and rural properties, which are located on the other quadrant maps.

The Central Quadrant, which includes nearly 100 potentially historic properties (single-family homes, churches, and commercial buildings) is located quite a distance from the high school where the proposed project would be built and no Central Quadrant building is closer than 1.5 miles from the proposed turbine. The closest photo simulation is AV-4, which is taken from a suburban neighborhood just east of downtown. It is also shown below. Despite the open topography, the turbine is scarcely visible, appearing much smaller than a nearby radio tower.



The North Central quadrant has the next highest number of potentially historic properties, with 32 properties in this quadrant. These are north of the Central quadrant and are generally 1.5 to 2 miles away from the proposed project. AV-3 shows both the transitional character of this part of town, with farm buildings adjacent to recent subdivisions as well as the near invisibility of the proposed turbine.



The northwest quadrant has 15 potentially historic properties, all older farmsteads. AV-2 simulates the presence of the turbine from that area.



AV-4, shown earlier with reference to the Central Quadrant, serves as a reference point for the Northeast Quadrant as well as the Central Quadrant. The Southeast Quadrant has only 7 older farms there. The view from that quadrant is shown in simulation AV-9, below, which represents the view from one of the historic farms. The turbine cannot be seen in this view. AV-7 and AV-8 show the turbine from the southwest quadrant, across open farmland. The turbine cannot be seen in these views.





Attachment 8 also helps analyze the impacts of visual intrusions on the significance of the potential historic properties within the APE. The photographs on pages 17-20 indicate that tall industrial structures are not unusual aspects of the rural landscape of Ohio. The photographs show the visual presence of granaries, which are nearly as tall as the turbine and larger in other respects. The photographs also show other types of tall buildings in the area, including a communication tower that appears to be much taller than the proposed project.

The general conclusion from Attachment 8 is that the urban and rural properties in and near Archbold do not exist in a setting free from industrial-type visual impacts. The granaries and silos are integral parts of the agricultural context while other tall structures such as communication towers are located where they can be free from obstructions. These types of tall structures have long been a part of this and most other rural areas of the United States.

This analysis shows that the potential significance of the many properties within a two mile radius of the proposed tower do not derive their significance from the absence of tall structures and visual intrusions. Therefore, it is unlikely that construction of the proposed project would diminish the setting for one of the properties within that radius and render it ineligible for listing in the National Register.

Visual impacts vary according to at least three variables: the distance of a historic property from the visual intrusion; intervening barriers that might diminish visual impacts; and the degree to which the significance of a property hinges upon the presence or absence of visual intrusions.

Relying upon the analysis and photo simulations in Attachment 8, DOE has determined that there will be No Adverse Effect to historic properties because the undertaking will not introduce a visible element that will diminish the integrity of the significant historic features of any of the properties within the APE. The closest properties – those within the community of Archbold – are shielded from visual impacts by the urban forest. The rural properties do not benefit from the urban forest but are generally at such a distance as to make the visual impact insignificant. Finally, the presence of other vertical elements such as granaries, silos, and communication towers indicate that the potential significance of these properties does not derive from a pristine setting. In fact many of these tall elements, particularly silos and granaries, have been around for as long as most of the potential historic properties. Taking into account these three elements of visual impacts, it is concluded that the undertaking will result in No Adverse Effect to any of the assumed historic properties within the APE.

d. Assessment of impacts from shadow flicker impacts.

A shadow flicker analysis (Attachment 9) was completed for the proposed project area to determine the amount of shadow flicker that would be experienced for local receptors as a result of the proposed turbine. The analysis considered several aspects affecting the casting of shadows and potential impacts on local receptors, including the distance to receptors, angle of incoming solar insolation, and the amount of sunlight experienced at the project site during each of the four seasons.

Results of the shadow flicker analysis indicate that no homes or occupied business structures outside the school would receive significant flickering shadows of over 30 hours per year, and would be well under 30 hours.

Relying upon the analysis in Attachment 9, DOE has determined that there will be No Effect to historic properties owing to shadow flicker impacts associated with the installation of the proposed wind turbine.

8. Conclusions

This report supports DOE's conclusion that the Archbold Local Schools Wind Energy Project will result in No Adverse Effects to properties that may qualify for listing in the National Register of Historic Places.