

Appendix D Agency Consultation

Lee County Soil and Water Conservation District



USDA Service Center
319 S. Mason
Amboy, IL 61310

Phone: 815-857-3621 ext.3
Fax: 815-857-2711

June 10, 2010

Alan Pfeifer
Dean of Information Service (Instructional Technology and Learning
Resource Center)
Sauk Valley Community College
173 IL Rt 2
Dixon, IL 61021

Dear Mr Pfeifer;

I have completed a preliminary investigation of the proposed location for a wind turbine at Sauk Valley College. As indicated on the attached map, no farm ground will be taken out of production for this construction.

If you proceed with a change in zoning a Natural Resource Inventory report will need to be completed by our office. This is a detailed report of the proposed construction area.

If you have any further questions please call the office at 815-857-3621 ext 3.

Sincerely,

Brenda Merriman, Resource Conservationist
Lee County SWCD



Department of Energy
Washington, DC 20585

September 7, 2010

Richard C. Nelson
U.S. Fish and Wildlife Service
Rock Island Illinois Field Office
1511 47th Avenue
Moline, Illinois 61265

Subject: Section 7 Endangered Species Consultation
Sauk Valley Community College Wind Energy Project, Lee County, IL

Mr. Nelson,

The U.S. Department of Energy (DOE) is requesting concurrence from the U.S. Fish and Wildlife Service (FWS) that the proposed Sauk Valley Community College (SVCC) Wind Energy Project, Lee County, Illinois is *not likely to adversely affect* the endangered Indiana bat (*Myotis sodalis*) and have *no effect* on the Eastern prairie fringed orchid (*Platanthaera leucophaea*) and the Prairie bush clover (*Lespedeza leptostachya*). This request is being submitted after close consultation with Mr. Jeff Gosse in the FWS Midwest Region/Region 3 Office on the process for DOE "Recovery Act" funded wind power projects.

DOE has reviewed the FWS Environmental Conservation Online System to determine that there is no known critical habitat present at the project site. DOE has also obtained the list of threatened, endangered, candidate species for Lee County from the FWS Midwest Region 3 Section 7(a)(2) Technical Assistance Website. From this list DOE has determined the following species occur in Lee County: the Indiana bat federally-listed Endangered and the federally-listed threatened Eastern prairie fringed and Prairie bush clover. As further described below, the proposed project site is an actively landscaped grass lawn on the SVCC campus, and thus is not suitable habitat for the Eastern prairie fringed orchid or the Prairie bush clover. DOE therefore concludes that this project would have no effect on these species.

The proposed project consists of a single 2.5-megawatt wind turbine, with an overall height of 127 meters (418 feet) and associated gravel access road, and electrical transmission equipment. The proposed project area is located 0.15 miles directly southwest of the intersection of IL Rt. 2 and Sauk Rd, in Dixon IL (Lat. 41.821778, Long. -89.595072) (see attached figures). The site is at an elevation of 205 feet and is entirely comprised of previously disturbed grassland. The specific wind turbine model has not been selected; however SVCC has submitted their preferred turbine model to the Federal Aviation Administration for their review.

A review of the *Indiana Bat (Myotis sodalis) Draft Recovery Plan: First Revision (USFWS; April 2007)* indicates no summer records of the Indiana bat in Lee County, Illinois, and the nearest known hibernaculum and designated critical habitat area is Black Ball Mines in LaSalle County, Illinois (Priority 2 hibernaculum), 44 miles southeast of the proposed project. This information is consistent with email correspondence from Michael Branham, Illinois Department of Natural Resources (DNR) to Allison Grady, IDC, in June 2010. The proposed project site does not include suitable wintering (hibernacula), summer (maternal roosting habitat), or highly suitable foraging habitat for this species. Mature trees or undisturbed habitats do not occur on the site and the surrounding area is predominantly agricultural, with pockets of wooded areas located no closer than approximately 1,700 feet from the project area. Indiana bats do not tend to forage in expanses that span greater than 1,000 feet (USFWS, 2010).

The DNR was also consulted regarding this project and an Ecological Compliance Assessment Tool (EcoCAT) was used to evaluate the proposed site. As part of the *Consultation for Endangered Species and Natural Area Protection* (Part 1075), an EcoCAT review was performed for threatened or endangered species occurrences within the Project's vicinity. The Illinois DNR issued a letter to the project proponent indicating that, "The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated."

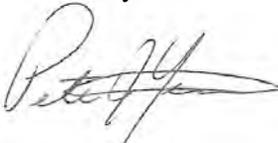
The proposed project site does not include suitable wintering (hibernacula), summer (maternal roosting habitat), or foraging habitat for this species and is unlikely to be within a major migratory pathway. Based on the lack of known occurrences of this species or suitable habitats (hibernacula or summer roosting habitat) at or near the proposed project site, the likelihood that this project will affect individuals of this species or suitable habitats is discountable. The risk to migrating individuals is more difficult to characterize because little is known of the migratory patterns of this species. Based on this uncertainty, it is appropriate to conclude that the proposed project may affect, but is not likely to adversely affect the Indiana bat due to discountable effects.

Pursuant to the requirements under Section 7(a)(2) of the Endangered Species Act and the FWS implementing regulations (50 CFR Part 402), DOE respectfully requests concurrence with the determination that the installation and operation of the Sauk Valley Community College Wind Energy Project is not likely to adversely affect the Indiana bat and will have no effect on the Eastern prairie fringed orchid or any other federally-listed threatened, endangered, proposed, or candidate species, or their critical habitat. It is DOE's opinion that review and concurrence on this project does not negate the comprehensive approach for evaluation of these types of projects as a group. DOE is respectfully requesting concurrence as expeditiously as possible for this DOE "Recovery Act" funded project. DOE appreciates the importance USFWS is placing on all of the reviews of the DOE "Recovery Act" funded projects as we understand the matter was discussed during the September 1, 2010 Region 3 – Field Office meeting.

DOE is preparing a Draft Environmental Assessment under the National Environmental Policy Act (NEPA 40 CFR 1500-1508) for this project, and will describe the potential impacts to biological resources, including eagles and other migratory birds in that document; DOE will notify your office of the availability of this document.

Please contact the DOE Document Manager Mr. John Jediny at 202-586-4790 or John.Jediny@ee.doe.gov or the NEPA Compliance Officer Mr. Pete Yerace at 513-218-4069 or Pete.Yerace@emcbc.doe.gov with any questions regarding this consultation.

Sincerely,

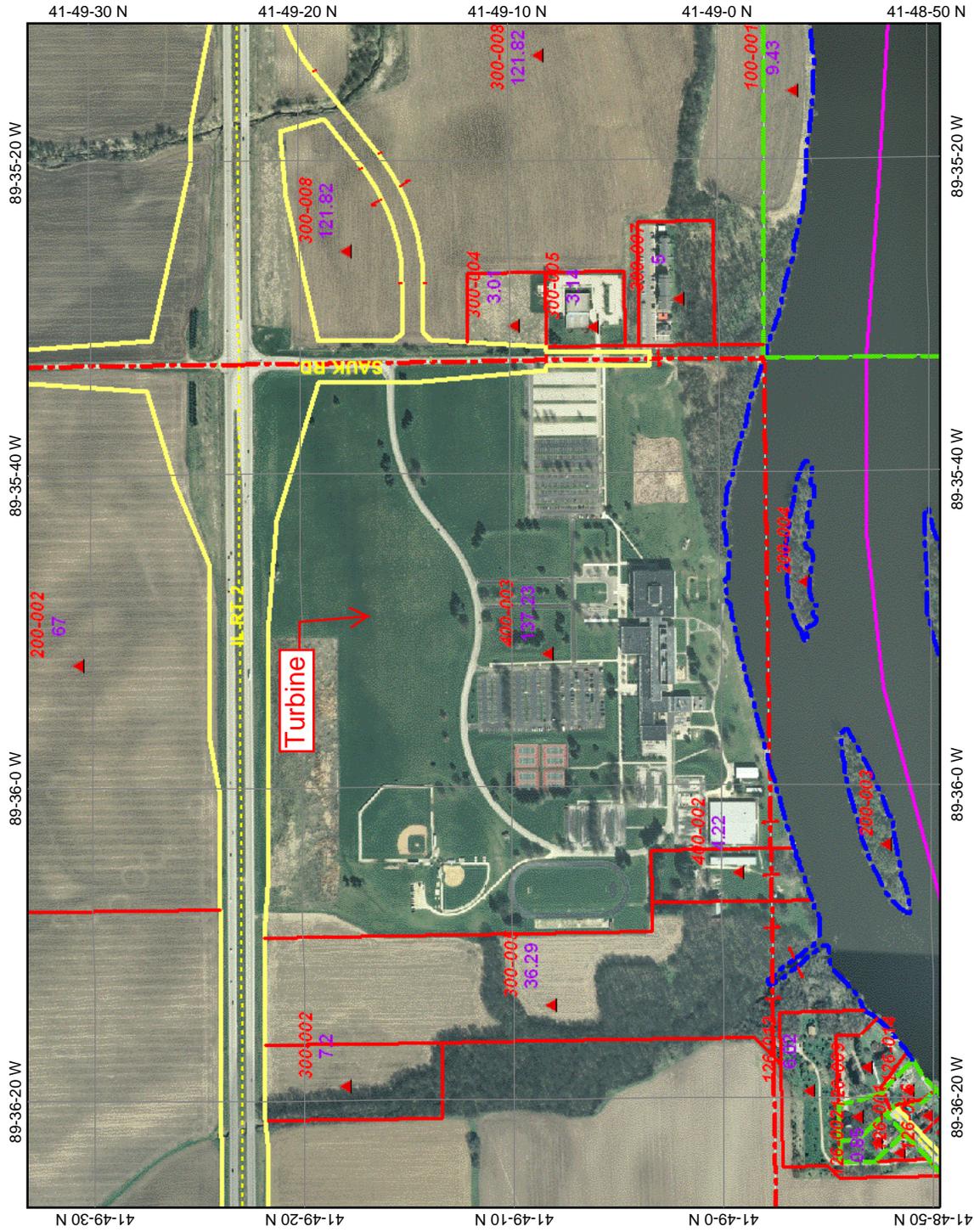


Pete Yerace
NEPA Compliance Officer

Enclosures:
Aerial Maps

cc: Mr. Jeff Gosse, USFWS Region 3 (w/ attachments)
Mr. Matthew Sailor, USFWS Region 3 (w/ attachments)
Ms. Heidi Woeber, USFWS Region 3 (w/ attachments)

SVCC



Map center: 2451866, 1877378

Scale: 1:9,405



Legend

Parcel Hooks, Dim, Ticks, etc.

- Line Type**
 - Lot Dim Line
 - Lot Num Line
 - Misc Dim Line
 - Parcel Dim Line
 - Parcel Owner Hook
 - Road Dim Line
 - Cadastral Layer
- Line Type**
 - Geographic Township Line
 - Lot Line
 - Misc Line
 - Parcel Line
 - Political Corporate Line
 - Political Township Line
 - Railroad Centerline
 - Railroad ROW
 - Road Centerline
 - Road ROW
 - Section Line
 - Subdivision Line
 - Unknown
 - Water Line
 - PIN Number
 - Section Polygons
 - High Flight Aerials
- RGB**
 - Red: Band_1
 - Green: Band_2
 - Blue: Band_3



This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Rock Island Field Office
1511 47th Avenue
Moline, Illinois 61265
Phone: (309) 757-5800 Fax: (309) 757-5807

IN REPLY REFER

TO:

FWS/RIFO

September 10, 2010

Mr. Pete Yerace
NEPA Compliance Officer
Department of Energy
Washington, DC 20585

Dear Mr. Yerace:

We have reviewed your letter dated September 3, 2010, regarding the Sauk Valley Community College (SVCC) Wind Energy Project, Lee County, Illinois. SVCC plans to install a single wind turbine at their campus near the intersection of IL Rt. 2 and Sauk Road, in Dixon, Illinois. The 2.5 megawatt turbine will be 418 feet tall. The project will require a gravel access road, and electrical transmission equipment. SVCC is applying to receive a grant through the United States Department of Energy (DOE) as part of the American Recovery and Reinvestment Act Community Renewable Energy Program. As the grantor, DOE is the Federal action agency. We have the following comments.

We understand from the letter that there is no suitable habitat in the project area for the federally listed prairie bush clover (*Lespedeza leptostachya*) or eastern prairie fringed orchid (*Platanthera leucophaea*). The proposed SVCC campus site is previously disturbed, urban developed, and regularly mowed turf grass. We concur with your determination that the proposed project will have no effect on these species.

In regard to the federally listed endangered Indiana bat (*Myotis sodalis*), there are no summer records for the bat in Lee County, Illinois, and the nearest known hibernaculum and designated critical habitat area is Blackball Mine in LaSalle County, Illinois (Priority 2 hibernaculum), 44 miles southeast of the proposed project. The proposed project site does not include suitable wintering (hibernacula), summer (maternal roosting habitat), or highly suitable foraging habitat for this species. Mature trees or undisturbed habitats do not occur on the proposed site. The surrounding area is predominately agricultural, with wooded areas located no closer than approximately 1,700 feet from the project area. The risk to migrating individuals is difficult to characterize because little is known of the migratory patterns of this species. Based on the site information, the small scale of the project (single turbine), and the uncertainty of migratory patterns, you have concluded that the proposed project may affect, but is not likely to adversely

Mr. Pete Yerace

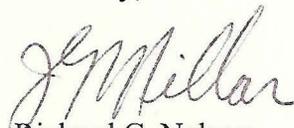
2

affect the Indiana bat, and that the likelihood for take is discountable. We concur with your determination.

We recommend that the DOE encourage "Renewable Energy Grant Funds" grant recipients to monitor wind turbines for impacts to birds and bats, and require notification to DOE and this office if operation of wind turbines results in mortality of these species. Should the project be modified or new information indicate endangered species may be affected, consultation should be initiated.

Thank you for the opportunity to provide comments. If you have any additional questions or concerns, please contact Heidi Woeber of my staff at 309-757-5800, extension 209.

Sincerely,


for Richard C. Nelson
Field Supervisor

cc: USFWS/R3/ES (Gosse)
ILDNR (Shank)

s:\office users\heidi\concur\laadoegrantsingleurbinesaukvalleycc.doc



Federal Aviation Administration
 Air Traffic Airspace Branch, ASW-520
 2601 Meacham Blvd.
 Fort Worth, TX 76137-0520

Aeronautical Study No.
 2009-WTE-3370-OE

Issued Date: 04/14/2009

Bruce Papiech
 FPC Services Inc.
 1771 Sublette Rd.
 Sublette, IL 61367

**** 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 Solomon
Location:	Dixon, IL
Latitude:	41-49-17.40N NAD 83
Longitude:	89-35-49.80W
Heights:	493 feet above ground level (AGL) 1162 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked and/or lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

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

See attachment for additional condition(s) or information.

This determination expires on 04/14/2011 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before May 14, 2009. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace and Rules Division - Room 423, Federal Aviation Administration, 800 Independence Ave., Washington, D.C. 20591.

This determination becomes final on May 24, 2009 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Office of Airspace and Rules via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

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.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Michael Blaich, at (770) 909-4329. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-WTE-3370-OE.

Signature Control No: 624217-109079416
Kevin P. Haggerty
Manager, Obstruction Evaluation Service

(DNH -WT)

Attachment(s)

Additional information for ASN 2009-WTE-3370-OE

The proposed construction would be located approximately 5.91 nautical miles (NM) northeast of the Whiteside County Airport-Jos H Bittorf Field (SQI). It would exceed the obstruction standards of Title 14 of the Code of Federal Regulations, Part 77 as follows:

Section 77.23(a)(2) by 3 feet - a height that exceeds 490 feet above ground level within 5.91 NM as applied to SQI.

The proposal was not circularized for public comment because current FAA obstruction evaluation policy exempts from circularization those proposals which exceed the above cited obstruction standard. This is provided the proposal does not lie within an airport traffic pattern. This policy does not affect the public's right to petition for review determinations regarding structures, which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- > The proposed structure would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.
- > The proposed structure would have no effect on any existing or proposed IFR en route routes, operations, or procedures.
- > The proposed structure would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

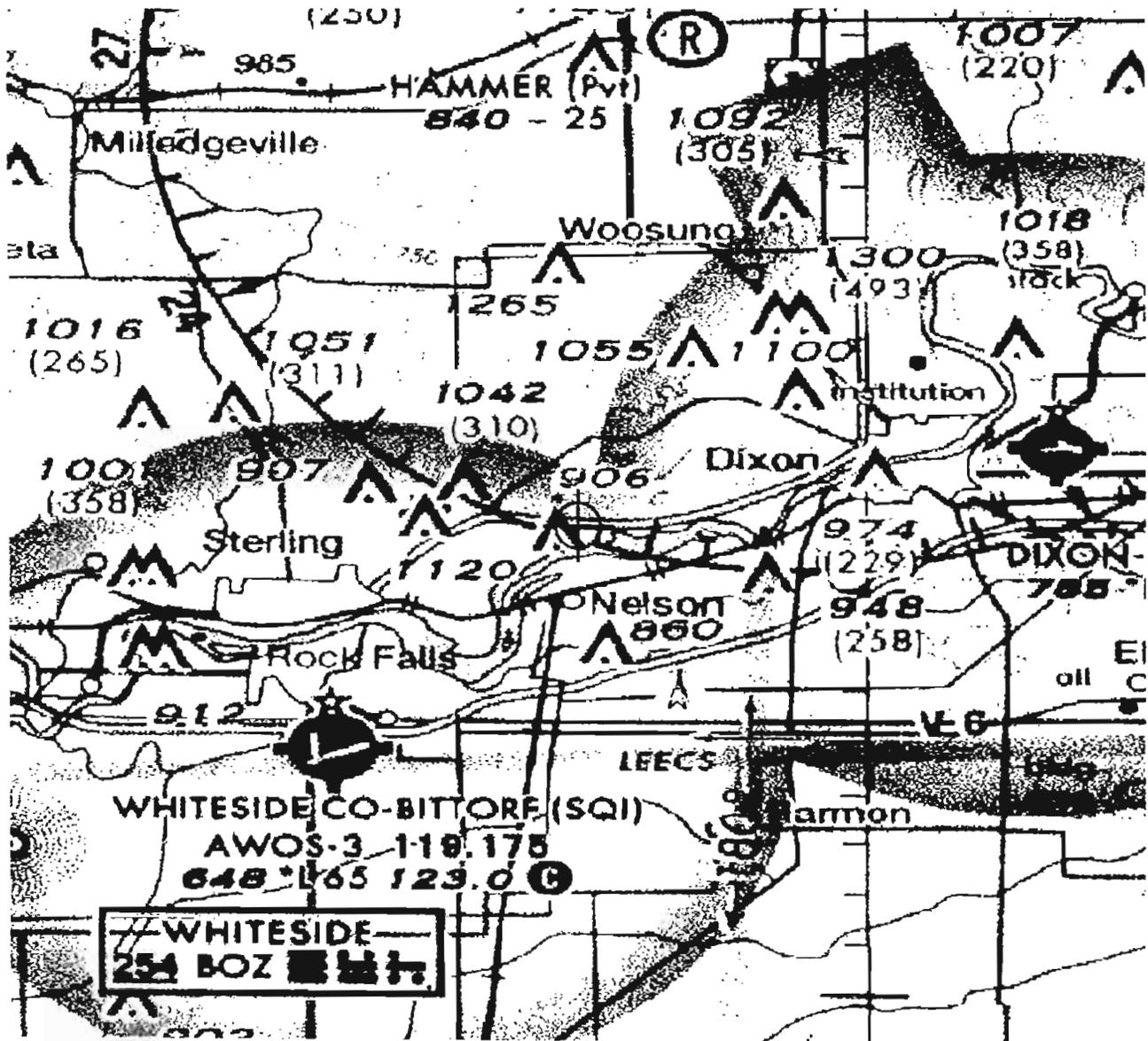
- > The proposed structure would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.
- > The proposed structure would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports.
- > The proposed structure would not penetrate those altitudes normally considered available to airmen for VFR en route flight.
- > The proposed structure will be appropriately obstruction marked and lighted to make it more conspicuous to airmen flying in VFR weather conditions at night.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies. Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws or ordinances.

Sectional Map for ASN 2009-WTE-3370-OE





Applicant: Illinois Department of Commerce and Economic Opportunity
IDNR Project #: 1005992
Contact: Alyson Grady
Date: 02/08/2010
Address: 620 East Adams
Springfield, IL 62701

Project: Sauk Valley Community College ARRA Comm REP
Address: 173 IL Route 2, Dixon

Description: The project will construct a 80 meter, approx. 1.5 MW wind turbine on the campus of the community college.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location. **Therefore, consultation under part 1075 is terminated.**

Wetland Review (Part 1090)

The National Wetlands Inventory does not show wetlands within 250 feet of the project location. **Therefore, the wetland review under Part 1090 is terminated.**

This review is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, Natural Areas, or wetlands are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Lee

Township, Range, Section:

21N, 8E, 8



IL Department of Natural Resources Contact
Michael Branham
217-785-5500
Division of Ecosystems & Environment

Local or State Government Jurisdiction
IL Department of Commerce and Economic Opportunity
Alyson Grady
620 East Adams
Springfield, Illinois 62701

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.
2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.
3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law. Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

Pat Quinn, Governor
Marc Miller, Director

March 19, 2010

Alyson Grady
Illinois Department of Commerce and Economic Opportunity
620 East Adams
Springfield, IL 62701

Re: Sauk Valley Community College ARRA Comm REP
Project Number(s): 1005992
County: Lee

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Michael Branham
Division of Ecosystems and Environment
217-785-5500



**Illinois Historic
Preservation Agency**

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • www.illinois-history.gov

Lee County
Dixon
173 IL Route 2
Wind Turbine, Sauk Valley Community College

PLEASE REFER TO: IHPA LOG #026031910

March 29, 2010

Alan Pfeifer
Dean of Information Service
Instructional Technology and Learning Resource Center
Sauk Valley Community College
173 IL Route 2
Dixon, IL 61021

Dear Mr. Pfeifer:

We have reviewed the documentation submitted for the referenced project(s) in accordance with 36 CFR Part 800.4. Based upon the information provided, no historic properties are affected. We, therefore, have no objection to the undertaking proceeding as planned.

Please retain this letter in your files as evidence of compliance with section 106 of the National Historic Preservation Act of 1966, as amended. This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you are an applicant, please submit a copy of this letter to the state or federal agency from which you obtain any permit, license, grant, or other assistance.

Sincerely,

Anne E. Haaker
Deputy State Historic
Preservation Officer

AEH

Mr. Pfeifer,

The site of the proposed turbine is not located within the floodway of the Rock River nor within the floodplain of a stream draining 10 square miles or more in a rural area; therefore an Illinois Department of Natural Resources, Office of Water Resources permit will not be required for the project.

Sincerely,

Mark McCauley

Mark L. McCauley
Senior Permit Engineer
IDNR, Office of Water Resources
(217) 524-1047

From: Alan Pfeifer [mailto:pfeifer@svcc.edu]

Sent: Thursday, April 15, 2010 5:28 PM

To: Mccauley, Mark

Subject: Information on Sauk Wind Turbine - Dixon, Illinois

- Show quoted text -



UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and
Information Administration
Washington, D.C. 20230

AUG 25 2010

Mr. John Jediny (EE-3C)
Department of Energy
1000 Independence Ave., SW
Room 5H-095
Washington, DC 20585

Re: Sauk Valley Community College Wind Project, in Lee County, IL

Dear Mr. Jediny:

In response to your request on July 2, 2010, the National Telecommunications and Information Administration provided to the federal agencies represented in the Interdepartment Radio Advisory Committee (IRAC) the plans for the Sauk Valley Community College Wind Energy Project, located in Lee County, Illinois.

After a 45 day period of review, no federal agencies identified any concerns regarding blockage of their radio frequency transmissions.

While the IRAC agencies did not identify any concerns regarding radio frequency blockage, this does not eliminate the need for the wind energy facilities to meet any other requirements specified by law related to these agencies. For example, this review by the IRAC does not eliminate any need that may exist to coordinate with the Federal Aviation Administration concerning flight obstruction.

Thank you for the opportunity to review these proposals.

Sincerely,

A handwritten signature in black ink that reads "Edward M. Davison".

Edward M. Davison
Deputy Associate Administrator
Office of Spectrum Management

Appendix E Sample Turbine Specifications

GE



Search SEARCH PRODUCTS & SERVICES ONLINE TOOLS OUR COMMITMENT ABOUT US CONTACT US

1.5 MW Wind Turbine Technical Specifications

- Home
- Products & Services
- Products
- Wind Turbines
- 1.5 MW Wind Turbine
- 2.X MW Wind Turbine
- 3.6 MW Wind Turbine
- Services
- Lifecycle Services

1.5 MW Wind Turbine Technical Specifications

		TC3+			TC2		TC1
		1.5xle	1.6xle	1.6sle	1.5sle	1.5xte	1.5se
Rotor Diameter	m	82.5	82.5	77	77	82.5	70.5
Hub Heights	M	80/100	80/100	80	64.7, 80	80	64.7
Frequency	Hz	50/60	60	50/60	50/60	60	60
	Vavg; m/s	8.0	8.0	8.0	8.5	8.5	10.0
	Vref; m/s	37.1	40.0	39.1	39.1	40.0	50.0
	Ve50; m/s	52.5	56.0	55.0	55.0	56.0	70.0
	Cut-In; m/s	3.5	3.5	3.5	3.5	3.5	4.0
	Cut-Out; m/s	20	25	25	25	25	25
	IEC Wind Class	IEC TC III+	IEC TC III+	IEC TC III+	IEC TC IIA	IEC TC IIB	IEC TC Ib

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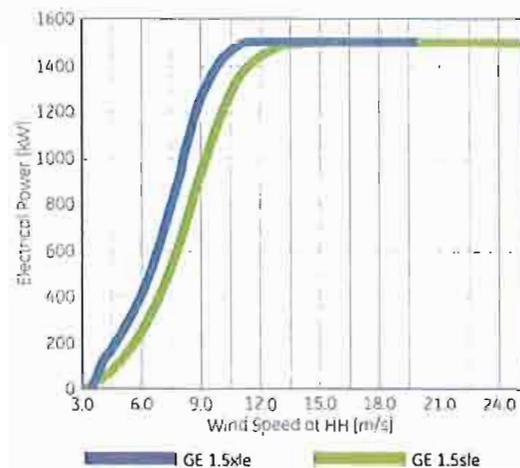
Advancing wind capture performance

As a leading global provider of energy products and services, GE continues to invest in advancing its 1.5 MW wind turbine product platform. With a core focus on enhancing efficiency, reliability, site flexibility and delivering multi-generational product advancements, GE's 1.5 MW wind turbine is the most widely used turbine in its class. Our commitment is to fully understand our customer's needs and respond with new technology enhancements aimed at capturing maximum wind energy to deliver additional return on investment.

Technical data

	1.5sle	1.5xle
Operating Data		
Rated Capacity	1500 kW	1500 kW
Temperature Range: Operation	-30°C - +40°C	-30°C - +40°C
With Cold Weather Extreme Package Survival	-40°C - +50°C	-40°C - +50°C
Cut-in Wind Speed	3.5 m/s	3.5 m/s
Cut-out Wind Speed (10 min avg)	25 m/s	20 m/s
Rated Wind Speed	14 m/s	11.5 m/s
Wind Class - IEC	Ib $V_{d50} = 55$ m/s $V_{0,95} = 8.5$ m/s	Ib $V_{d50} = 52.5$ m/s $V_{0,95} = 8.0$ m/s
Electrical Interface		
Frequency	50/60 Hz	50/60 Hz
Voltage	690V	690V
Rotor		
Rotor Diameter	77 m	82.5 m
Swept Area	4657 m ²	5346 m ²
Tower		
Hub Heights	65/80 m	80 m
Power Control	Active Blade Pitch Control	Active Blade Pitch Control

Power curve

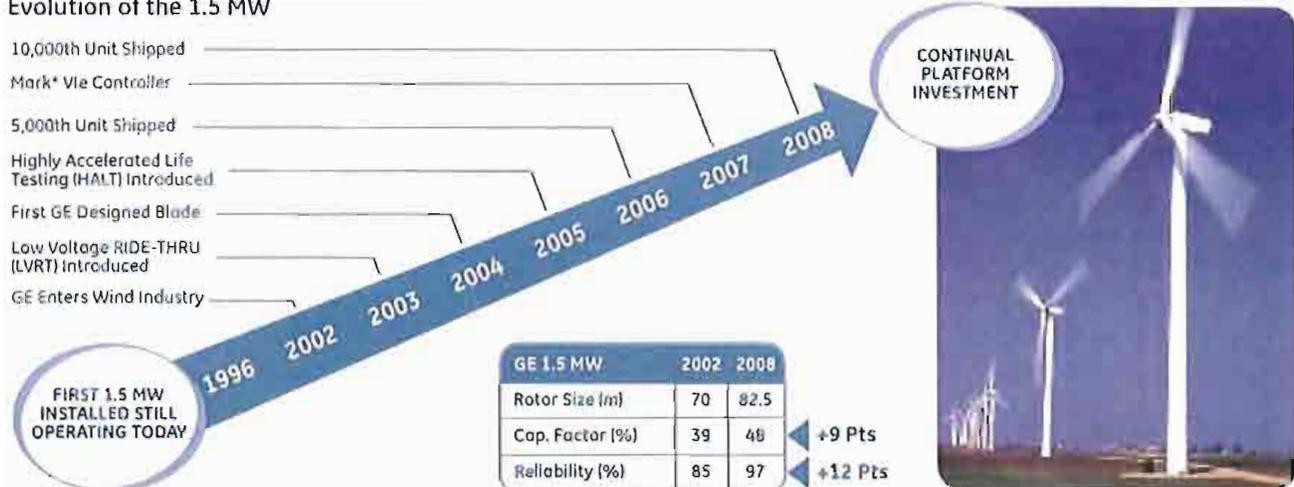


1.5sle – Classic workhorse, an efficient and reliable machine with proven technology

1.5xle – Built on the success of the 1.5sle platform, captures more wind energy with 15% greater swept area

GE's 1.5 MW wind turbine is designed to maximize customer value by providing proven performance and reliability. GE's commitment to customer satisfaction drives our continuous investment in the evolution of the 1.5 MW wind turbine through technological enhancements.

Evolution of the 1.5 MW



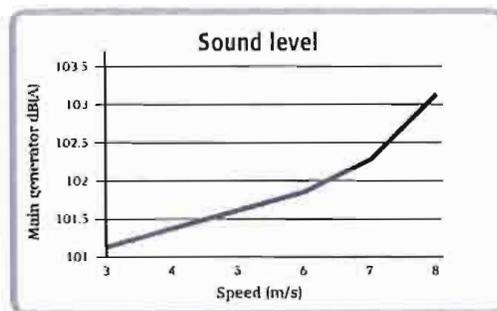
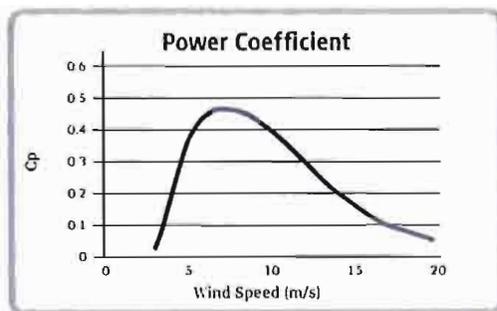
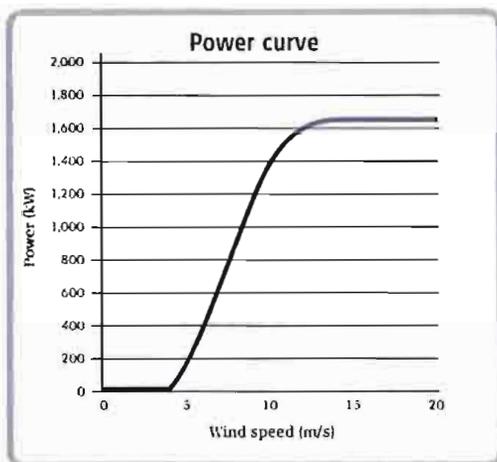
VESTAS

Technical specifications



- 1 Cooler
- 2 Generator
- 3 Nacelle controller
- 4 Anemometer windvanes
- 5 Coupling
- 6 Mechanical brake
- 7 Gearbox
- 8 Main shaft
- 9 Yaw gears
- 10 Machine foundation
- 11 Main bearing
- 12 Hub controller
- 13 Pitch system
- 14 Blade
- 15 Main panel
- 16 Phase compensation
- 17 Ground controller

Example of tower internal configuration.



Rotor

Diameter: 82 m
 Area swept: 5,281 m²
 Nominal revolutions: 14.4 rpm
 Number of blades: 3
 Power regulation: Active-Stall[®]
 Air brake: Full blade pitch by three separate hydraulic pitch cylinders.

Tower

50Hz, 230V: Hub height (approx.) 78 m
 60Hz, 110V: Hub height (approx.) 70 m, 80 m

Operational data

Cut-in wind speed: 3.5 m/s
 Nominal wind speed: 13 m/s
 Cut-out wind speed (10 minutes): 20 m/s

Generator

Type: Asynchronous water cooled
 Nominal output: 1,650 kW
 Operational data: 50/60 Hz 690/600V

Gearbox

Type: Planetary/helical stages

Control

Type: Microprocessor-based monitoring of all turbine functions with the option of remote monitoring. Output regulation and optimisation via Active-Stall[®].

Weight

Nacelle: 52 t
 Rotor: 43 t
 Towers:
 50Hz, 230V: IEC IIA
 Hub height: 78 m 115 t
 60Hz, 110V: IEC IIA
 Hub height: 70 m 105 t
 80 m 125 t

t = metric tonnes.

All specifications subject to change without notice.

SIEMENS

Technical specifications



Rotor

Diameter	101 m
Swept area	8,000 m ²
Rotor speed	6-16 rpm
Power regulation	Pitch regulation with variable speed

Blades

Type	B49
Length	49 m

Aerodynamic brake

Type	Full-span pitching
Activation	Active, hydraulic

Transmission system

Gearbox type	3-stage planetary/helical
Gearbox ratio	1:91
Gearbox oil filtering	Inline and offline
Gearbox cooling	Separate oil cooler
Oil volume	Approximately 400 l

Mechanical brake

Type	Hydraulic disc brake
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Generator

Type	Asynchronous
Nominal power	2,300 kW
Voltage	690 V
Cooling system	Integrated heat exchanger

Yaw system

Type	Active
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Monitoring system

SCADA system	WebWPS
Remote control	Full turbine control

Tower

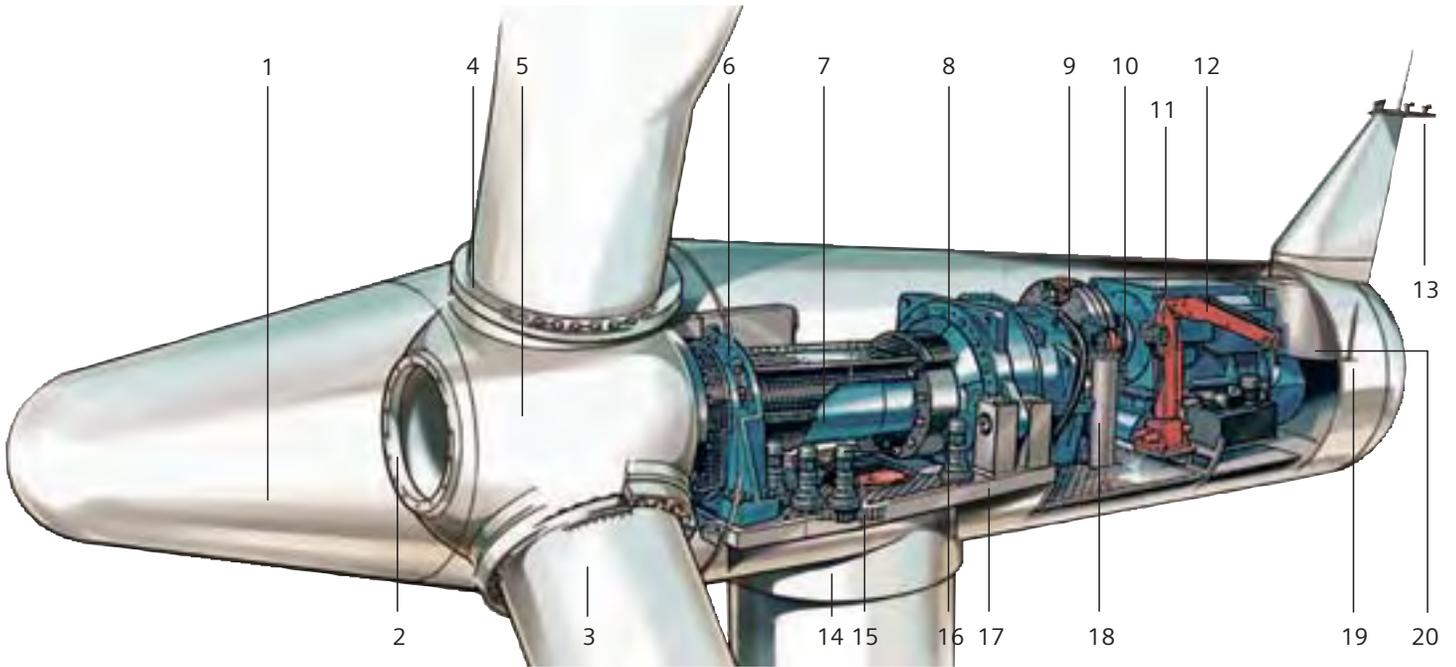
Type	Cylindrical and/or tapered tubular
Hub height	80 m or site-specific

Operational data

Cut-in wind speed	3-4 m/s
Rated power at	12-13 m/s
Cut-out wind speed	25 m/s
Maximum 3 s gust	55 m/s (standard version) 60 m/s (IEC version)

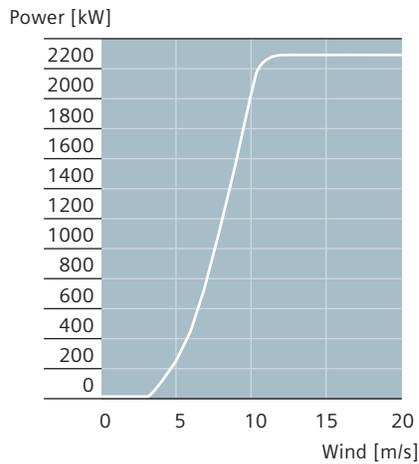
Weights

Rotor	62 tons
Nacelle	82 tons
Tower for 80-m hub height	162 tons



Sales power curve

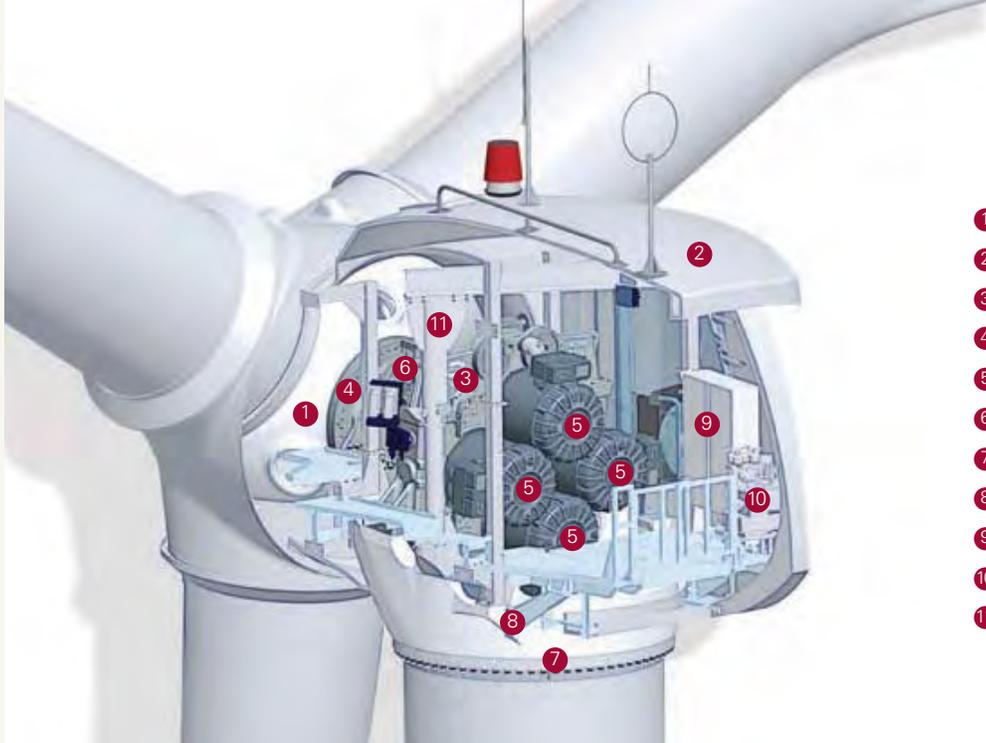
The calculated power curve data are valid for standard conditions of 15 degrees Celsius air temperature, 1013 hPa air pressure and 1.225 kg/m³ air density, clean rotor blades and horizontal, undisturbed air flow. The calculated curve data are preliminary.



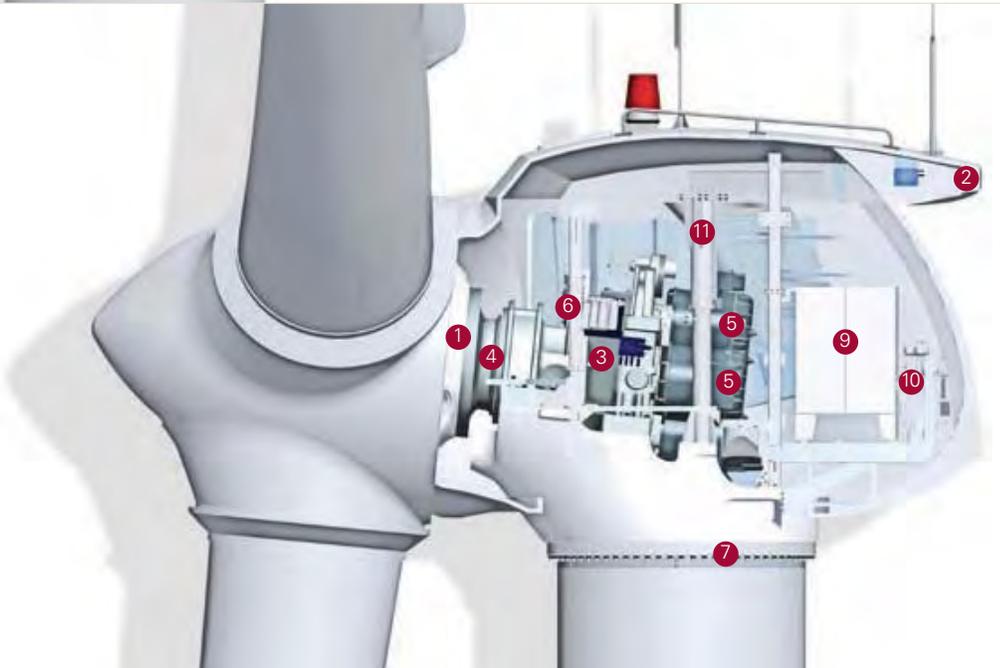
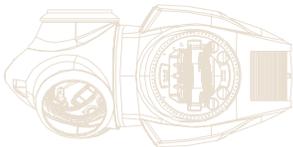
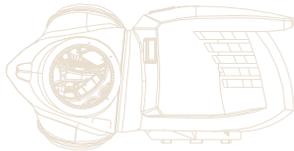
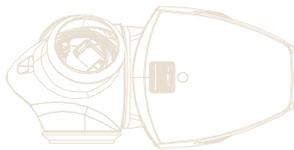
Nacelle arrangement

- | | |
|--------------------|----------------------------|
| 1. Spinner | 10. Coupling |
| 2. Spinner bracket | 11. Generator |
| 3. Blade | 12. Service crane |
| 4. Pitch bearing | 13. Meteorological sensors |
| 5. Rotor hub | 14. Tower |
| 6. Main bearing | 15. Yaw ring |
| 7. Main shaft | 16. Yaw gear |
| 8. Gearbox | 17. Nacelle bedplate |
| 9. Brake disc | 18. Oil filter |
| | 19. Canopy |
| | 20. Generator fan |

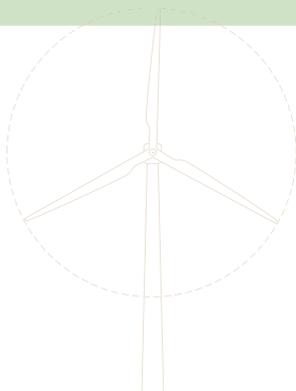
CLIPPER



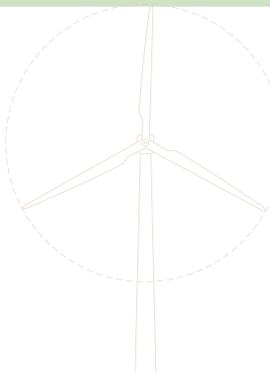
- 1 Hub
- 2 Nacelle
- 3 Gearbox
- 4 Main Shaft
- 5 Generators
- 6 Parking Brakes
- 7 Yaw System
- 8 Machine Base
- 9 Turbine Control Unit (TCU)
- 10 Hydraulic Power Unit (HPU)
- 11 On-Board Jib Hoist



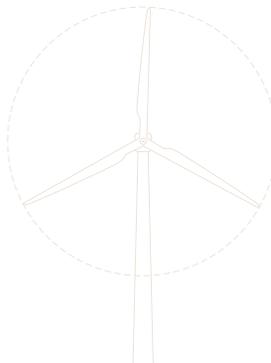
SPECIFICATIONS



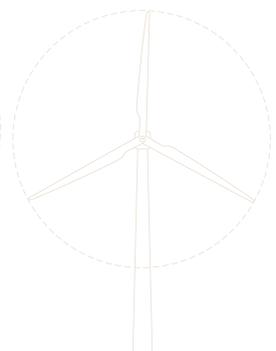
C99



C96



C93



C89

TECHNICAL SPECIFICATIONS - LIBERTY 2.5 MW WIND TURBINE

Power Output 2500 kW
 Operation Variable Speed: 9.6 - 15.5 rpm

Model	C89	C93	C96	C99
Wind Class	Ia*	IIa	IIb	S
Rotor Diameter	89m	93m	96m	99m
Swept Area	6221m ²	6793m ²	7238m ²	7698m ²
Blades	43.2m	45.2m	46.7m	48.2m

*Class Ia - All parameters same as IEC Class Ia except 50-year return gust value is 64.5 m/s instead of 70 m/s

Cut-in Wind Velocity 4 m/s - 10 min. Average
 Cut-out Wind Velocity 25 m/s - 10 min. Average

Pitch System 3X DC Electric-Mechanical Gear-motor,
 Servo Drives and Batteries

Generator
 Type Synchronous Permanent Magnet
 Rated Power Each 660 kW at 1133 rpm
 Number of Units 4
 Voltage 1320 VDC at Rated Power

Controller
 Type Embedded Motorola Power PC
 Voltage 3 Phase 480 VAC

Power Converter
 Type 4X, Voltage Sourced, IGBT Based
 6 Pulse, Inverters
 Voltage 690 VAC, 50Hz or 60Hz + 3Hz

Grid Compatibility
 Frequency-Continuous 50Hz or 60Hz + 3Hz

Line Voltage 690 VAC + 10% Continuous

Line Fault Ride-Thru -90% of Nominal Line for 3 sec.

Line Phase Imbalance Rated Power + 5%, Cut-in + 10%

Yaw System 4 Electro-Mechanical Motors with Planetary Drives
 Yaw Bearing Internal Gear, Ball Bearing
 Yaw Brake System Disc, 4 Active Hydraulic Brake Calipers

Parking Brake System Dual Disc with Active Hydraulic Brake Calipers
 Parking Brake Location Intermediate Stage of Gearbox

Tower Partial Conical - Tubular Steel, 4 Steel Plate Sections
 Hub Height 80m Standard / Other Options Available

Service Hoist On-Board, 2 Metric-ton Hoist

Maintenance
 Post Commissioning Once at 700 Hours, Every 6 Months Thereafter

Power Curve

