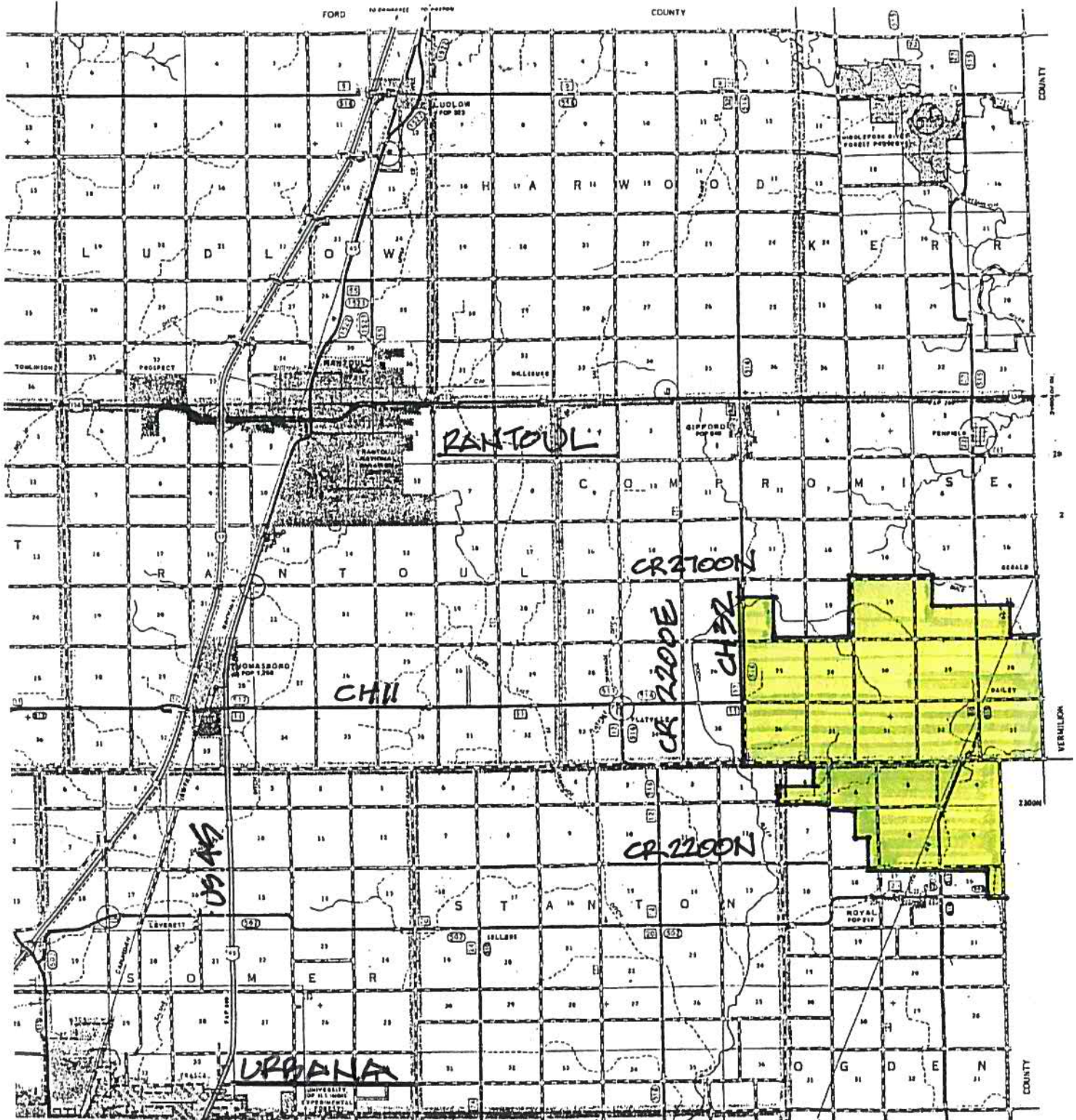


Case 696-S-11 California Ridge Wind Farm

ATTACHMENT C – Case Maps (Location & Zoning)

Attachment B Location Map  
Case 696-S-11  
AUGUST 17, 2011



PROPOSED PROJECT AREA

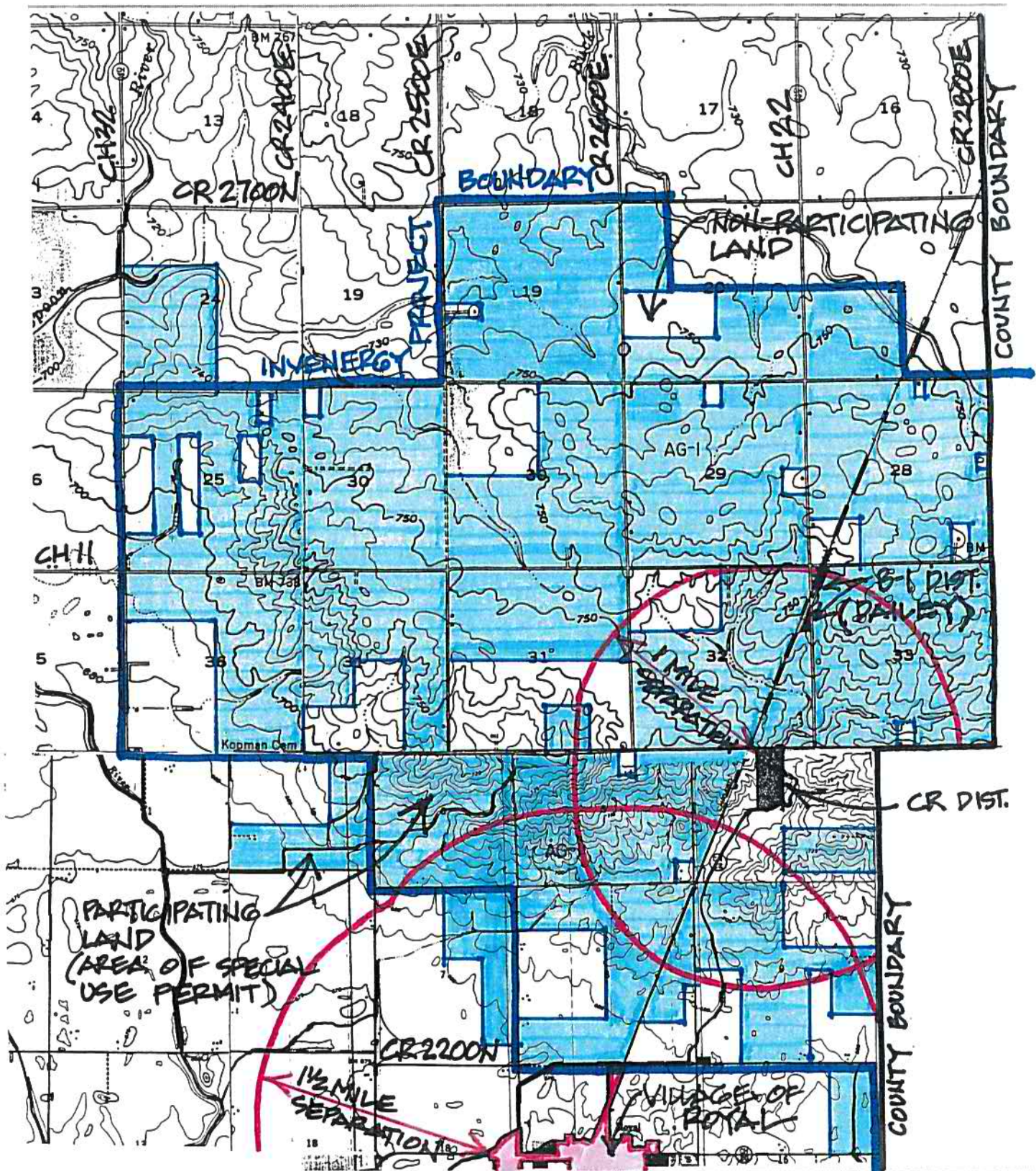


Champaign  
County  
Department of  
PLANNING &  
ZONING

Attachment B Zoning Map

Case 696-S-11

AUGUST 17, 2011



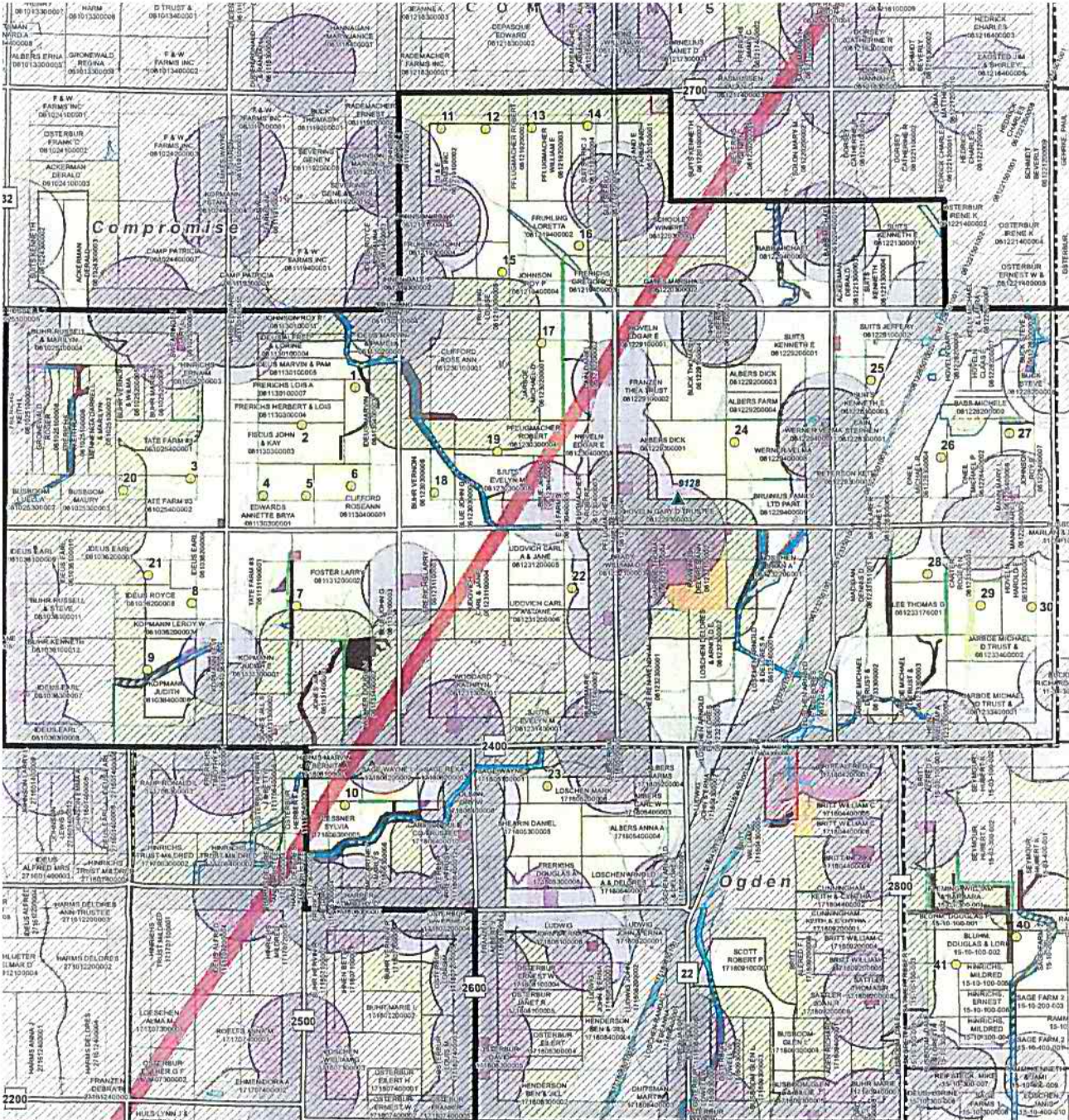
AG-1 Agriculture	R-1 Single Family Residence	R-4 Multiple Family Res.	B-2 Neighborhood Business	B-5 Central Business
AG-2 Agriculture	R-2 Single Family Residence	R-5 Mobile Home Park	B-3 Highway Business	I-1 Light Industry
CR Conservation-Recreation	R-3 Two-family Residence	B-1 Rural Trade Center	B-4 General Business	I-2 Heavy Industry



Champaign  
County  
Department of  
**PLANNING &  
ZONING**

Case 696-S-11 California Ridge Wind Farm

ATTACHMENT D – Parcel Status summary Map with Setbacks,  
California Ridge Wind Energy Center, Champaign and Vermilion  
counties, received July 21, 2011 (excerpt of Champaign County portion  
only)



- Legend**
- Proposed Turbine Location
  - P.O.I. - Vermilion Power
  - Proposed Substation
  - Met Tower Location
  - State Route
  - County Road
  - Town/Local Road
  - Stream
  - Proposed T-Line Route
  - Field Delineated Wetland
  - NWI Wetland
  - WCFZ Area
  - Construction Exemption
  - Gas Pipeline Setback
  - Non-Participating Setback
  - Road Setback
  - Railroad Setback
  - Residential Setback
  - No Information
  - Participating
  - Township Boundary
  - County Boundary
  - Project Boundary

**RECEIVED**  
 JUL 21 2011  
 CHAMPAIGN CO. P & Z DEPARTMENT

# Parcel Status Summary Map with

California Ridge Wind Energy Center, Champaign and Vermilion Counties, Illinois

Case 696-S-11 California Ridge Wind Farm

ATTACHMENT A – Public Notice for Case 696-S-11 Parts A & B

**PUBLIC NOTICE OF PUBLIC HEARING IN REGARD TO A COUNTY BOARD SPECIAL USE PERMIT UNDER THE PROVISIONS OF THE CHAMPAIGN COUNTY ZONING ORDINANCE**

**CASE: 696-S-11**

California Ridge Wind Energy LLC and the participating landowners listed below have filed a petition for a Special Use Permit under the provisions of the Champaign County Zoning Ordinance on property in unincorporated Champaign County. The petition is on file in the office of the Champaign County Department of Planning & Zoning, 1776 East Washington Street, Urbana, IL.

California Ridge Wind Energy LLC is wholly owned by Invenergy Wind North America LLC, One South Wacker Drive, Suite 1900, Chicago, IL 60606, with President, Michael Polsky; Vice President, James Murphy; Vice-President, Bryan Schueler; Vice-President, James Shield; Vice-President, Kevin Parzyck; Secretary, Joseph Condo, all with offices at One South Wacker Drive, Suite 1900, Chicago, IL 60606.

A public hearing will be held **Thursday, August 25, 2011 at 7:00 p.m.** prevailing time in the Lyle Shields Meeting Room, Brookens Administrative Center, 1776 E. Washington Street, Urbana, IL, at which time and place the Champaign County Zoning Board of Appeals will consider a petition to:

Authorize a Wind Farm which consists of 30 Wind Farm Towers (wind turbines) in total with a total nameplate capacity of 48 megawatts (MW) of which 28 Wind Farm Towers with a total nameplate capacity of 45 MW are proposed in Compromise Township (Part A) and 2 Wind Farm Towers with a total nameplate capacity of 3 MW are proposed in Ogden Township (Part B), and including access roads, wiring, and public road improvements, and including waivers of standard conditions as listed below, on the following properties in Compromise Township (Part A) and Ogden Township (Part B) in Champaign County, Illinois:

**PART A COMPROMISE TOWNSHIP**

**Section 19, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 19, with exceptions. A total of 6 Wind Farm Towers (wind turbines) are proposed in Section 19 as follows:

- 2 Wind Farm Towers are proposed in the Northwest Quarter of Section 19 on a 209.15 acre tract owned by G & E Farms, Inc., POB 35, Gifford, IL 61847-0335;
- 1 Wind Farm Tower is proposed in the Northeast Quarter of Section 19 on a 66 acre tract owned by William Pflugmacher, 333 Eiler Drive, Gifford, IL 61847-9727;
- 1 Wind Farm Tower is proposed in the Northeast Quarter of Section 19 on a 65.63 acre tract owned by Eric Suits, 2655 CR 2600E, Penfield, IL 61862;
- 1 Wind Farm Tower is proposed in the East Half of the Southwest Quarter of Section 19 on a 30 acre parcel owned by Louise Fruhling, 31361 N 750 East Rd, Potomac, IL 61865-6601;
- 1 Wind Farm Tower is proposed in the North Half of the Southeast Quarter of Section 19 on an 80 acre parcel owned by Loretta Fruhling/ Fruhling Family Trust, 388 Gibbs Drive, Rantoul, IL 61866

Other participating landowners in Section 19 are the following:

John Fruhling, 2499 CR 2600N, Penfield, IL 61862

Roy and Barbara Johnson, 2640 CR 2500E, Penfield, IL 61862  
Robert and Dorene Pflugmacher, 866E CR 2250N, Ogden, IL 61859-9602  
Greg Frerichs, 2506 CR2300N, Ogden IL 61859

**Section 20, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes an 80 acre tract of land in the West Half of the Northwest Quarter of Section 20 and an 80 acre tract of land in the South Half of the Southwest Quarter of Section 20 and a 157.98 acre tract of land in the Southeast Quarter of Section 20. Participating landowners in Section 20 are the following:

Michael Babb, 2635 CR 2700E, Penfield, IL 61862  
Marsha Gates, POB 704, Tolono, IL 61880  
G & E Farms, Inc., 502 S. Main St. POB 35, Gifford, IL 61847-9713

**Section 21, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes the Southwest Quarter of Section 21. Participating landowners in Section 21 are the following:

Derald and Florene Ackerman, 519 South Main Street, Gifford, IL 61847-9713  
Kenneth and Rosetta Suits, 2738 CR 2600N, Penfield, IL 61862  
Rosetta Suits, 2738 CR 2600N, Penfield, IL 61862

**Section 24, T21N, R10E of the 3<sup>rd</sup> P.M., Compromise Township.** The Special Use Permit includes the South Third of the Northwest Quarter and the Southwest Quarter. Participating landowners in Section 24 are the following:

Derald and Florene Ackerman, 519 South Main Street, Gifford, IL 61847-9713  
Kenneth and Rosetta Suits, 2738 CR 2600N, Penfield, IL 61862

**Section 25, T21N, R10E of the 3<sup>rd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 25 with exceptions. A total of 2 Wind Farm Towers (wind turbines) are proposed in Section 25 as follows:

- 2 Wind Farm Towers are proposed on an 80 acre parcel in the South Half of the Southeast Quarter of Section 25 on land owned by the Mary Ruth Elfe Revocable Trust and Charlotte R. Van Blokland Trust, aka Tate Farm #3/Busey Ag Services, 3002 West Windsor Road, Champaign, IL 61822

Other participating landowners in Section 25 are the following:

Russell and Marilyn Buhr, 2594 CR 2300E, Gifford, IL 61847-9740  
Vernon and Wilma Buhr, 2152 CR 2400N, St. Joseph, IL 61873  
Luella Busboom, 2258 CR 2500N, St. Joseph, IL 61873  
Maury Busboom, POB 131, Royal, IL 61871  
Roger and Betty Gronewald, 508 E Main POB 117, Royal, IL 61871  
Erna Hinrichs, 1037 Englewood Drive, Rantoul IL 61866  
Darrell and Marilyn Mennenga, 5205 Beech Ridge Road, Nashville, TN 37221  
David and Danita Uken, 2146 CR 2100N, St. Joseph, IL 61873

**Section 28, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 28 with exceptions. A total of 3 Wind Farm Towers (wind turbines) are proposed in Section 28 as follows:



- 1 Wind Farm Tower is proposed on a 62.54 acre parcel in the Northeast Quarter of Section 28 on land owned by Kenneth Suits, 2738 CR 2600N, Penfield, IL 61862
- 1 Wind Farm Tower is proposed on an 80 acre parcel being the East Half of the Southwest Quarter of Section 28 on land owned by Michael O'Neill, POB 236, Philo, IL 61864
- 1 Wind Farm Tower is proposed on a 70.26 acre parcel in the East Half of the Southeast Quarter of Section 28 on land owned by Roy and Barbara Johnson, 2640 CR 2500E, Penfield, IL 61862

Other participating landowners in Section 28 are the following:

Michelle Babb, 2635 CR 2700E, Penfield, IL 61862

Alice Buck c/o Steve Buck, 609 Bayshore Drive, #9, Ft. Lauderdale, FL 33304

Steve Buck, 609 Bayshore Drive, #9, Ft. Lauderdale, FL 33304

Alice Cain Heirs c/o Steve Cain, POB 103, Philo, IL 61864

Gary Hovel, 2518 CR 2600E, Penfield, IL

Claas Hovel, 2971 CR 2700E, Penfield, IL

Jeffrey Suits, 2703 CR 2500N, Penfield, IL 61862

Union Pacific Railroad, 1400 Douglas, Stop 1640, Omaha, NE 68179

**Section 29, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 29, with exceptions. One Wind Farm Tower (wind turbine) is proposed in Section 29 as follows:

- 1 Wind Farm Tower is proposed on a 75 acre tract in the North Half of the Southeast Quarter of Section 29 on land owned by Velma Werner, 312 Penny Lane, Peotone, IL 60468

Other participating landowners in Section 29 are the following:

Albers Farm c/o Sandra J. King, POB 562, St. Joseph, IL 61872

Dick Albers, POB 213, Royal, IL 61871

Thomas and Patricia Buck, 2321 CR 2900N, Gifford, IL 61847

Bruinius Family Limited Partnership, 7723 W. Stuenkel Rd., Frankfort, IL 60423

Franzen Family Living Trust, 861 CR 900E, Tolono, IL 61880

Edgar and Sharon Hovel, 408 Moraine Dr., Rantoul, IL 61866

Gary Hovel, Trustee, 2518 CR 2600E, Penfield, IL 61862

Kenneth and Rosetta Suits, 2738 CR 2600N, Penfield, IL 61862

**Fractional Section 30, T21N, R11E, of the 3<sup>rd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Fractional Section 30, with exceptions. A total of 5 Wind Farm Towers (wind turbines) are proposed in Fractional Section 30 as follows:

- 1 Wind Farm Tower is proposed on a 60.86 acre parcel in the North Half of the South Half of Fractional Section 30 on land owned by Kay and John Fiscus, 105 Thomas Dr., St. Joseph, IL 61873
- 2 Wind Farm Towers are proposed on an 80 acre tract in the Southwest Quarter of Fractional Section 30 on land owned by Annette Brya Edwards c/o Busey Bank Ag Services, POB 107, Leroy, IL 61752
- 1 Wind Farm Tower is proposed on a 62.66 acre parcel in the East Half of Fractional Section 30 on land owned by Marvin and Pamela Ideus, 401 Eden Park Dr., Rantoul, IL 61866

- 1 Wind Farm Tower is proposed on an 80 acre parcel in the Southeast Quarter of Fractional Section 30 owned by Roseann Clifford, 2008 Sunview Dr., Champaign, IL 61821

Other participating landowners in Fractional Section 30 are the following:

Lois and Herbert Frerichs, POB 25, Royal, IL 61871

Alfred and Lorine Ideus, 2124 CR 2400N, St. Joseph, IL 61873

Roy and Barbara Johnson, 2640 CR 2500E, Penfield, IL 61862

**Section 30, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 30 except the Northwest Quarter. A total of 3 Wind Farm Towers (wind turbines) are proposed in this Section 30 as follows:

- 1 Wind Farm Tower is proposed on an 80 acre parcel being the West Half of the Northeast Quarter of Section 30 on land owned by the Michael and Eileen Jarboe Trust, 2792 CR 2400N, Penfield, IL 61862
- 1 Wind Farm Tower is proposed on a 53.33 acre parcel located in the Northeast Quarter of the Southwest Quarter and the Northwest Quarter of the Southeast Quarter of Section 30 on land owned by Robert and Dorene Pflugmacher, 866E CR 2250N, Ogden, IL 61859-9602
- 1 Wind Farm Tower is proposed on an 80 acre parcel being the West Half of the Southwest quarter of Section 30 on land owned by Vernon and Wilma Buhr, 2152 CR 2400N, St. Joseph, IL 61873

Other participating landowners in this Section 30 are the following:

John Blue, 2148 CR 2650E, Ogden, IL 61859

Daniel and Amy Cain, 2567 CR 2600E, Penfield, IL 61862

Edgar and Sharon Hovel, 408 Moraine Dr., Rantoul, IL 61866

Evelyn Suits, 2331 CR 2000E, Urbana, IL 61802

Robert and Dorene Pflugmacher, 866E CR 2250N, Ogden, IL 61859-9602

**Fractional Section 31, T21N, R11E of the 3<sup>rd</sup> P.M., Compromise Township.** The Special Use Permit includes the North Half of the Fractional Section 31 and the North Half of the Fractional Southwest Quarter of Fractional Section 31 and the East Half of the Southeast Quarter of Fractional Section 31. One Wind Farm Tower (wind turbine) is proposed in Fractional Section 31 as follows:

- 1 Wind Farm Tower is proposed on a 140 acre parcel in the Northeast Quarter of Fractional Section 31 on land owned by Larry Foster, 28012 State Route 49, Armstrong, IL 61812

Other participating landowners in Fractional Section 31 are the following:

Mary Ruth Elfe Revocable Trust and Charlotte R. Van Blokland Trust, aka Tate Farm #3/Busey Ag Services, 3002 West Windsor Road, Champaign, IL 61822

John Blue, 2148 CR 2650E, Ogden, IL 61859

Judith E. Kopmann, POB 7, Royal, IL 61871

Douglas Walker and Susan Kingston, 1111 Stockholm Rd., Paxton, IL 60957

**Section 31, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes the North Half of Section 31 and the Southwest Quarter of the Southeast Quarter of Section 31. One Wind Farm Tower (wind turbine) is proposed in this Section 31 as follows:

- 1 Wind Farm Tower is proposed on an 80 acre parcel being the East Half of the Northeast Quarter of Section 31 on land owned by the LaVeda Pollack Trust c/o Kalin Kocher, 2455 CR 2600E, Penfield, IL 61862

Other participating landowners in this Section 31 are the following:

Larry Frerichs, 2474 CR 2500E, Penfield, IL 61862

Evelyn Suits, 2331 CR 2000E, Urbana, IL 61802

Carl and Jane Udovich, 3526 Bankview Dr., Joliet, IL 60431

**Section 32, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 32 except a 1.10 acre tract of land located in the West Half of the Northwest Quarter of Section 32. Participating landowners in Section 32 are the following:

Brian Loschen, 2692 CR 2300N, Ogden, IL 61859

Illini FS, Inc., 1509 E. University Avenue, Urbana, IL 61802

Union Pacific Railroad, 1400 Douglas, Stop 1640, Omaha, NE 61879

Wendy M. Heeren Trust, 50 Maywood Dr., Danville, IL 61832

Arnold & Delores Loschen Trusts, 2654 CR 2400N, Ogden, IL 61859

**Section 33, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 33, with exceptions. A total of 3 Wind Farm Towers (wind turbines) are proposed in this Section 30 as follows:

- 1 Wind Farm Tower is proposed on a 40 acre parcel being the Northeast Quarter of the Northwest Quarter of Section 33 on land owned by Robert Long, Pearl St., Bluffs, IL 62621
- 1 Wind Farm Tower is proposed on a 77.04 acre parcel in the West Half of the Northeast Quarter of Section 33 on land owned by Roger N. Carter, 2562 CR 3000N, Penfield, IL 61862
- 1 Wind Farm Tower is proposed on an 80 acre parcel being the East Half of the Northeast Quarter of Section 33 on land owned by Harold and Darlene Hovel, POB 134, Royal, IL 61871

Other participating landowners in Section 33 are the following:

Michael and Eileen Jarboe Trusts, 2792 CR 2400N, Penfield, IL 61862

Thomas and Beverly Lee, 2308 Naples Court., Champaign, IL 61822

Dennis Madigan Living Trust, 18877 Medford, Beverly Hill, MI 48025

**Section 36, T21N, R10E, Compromise Township.** The Special Use Permit includes all of Section 36 except the South Half of the Northwest Quarter of Section 36 and the Southwest Quarter of Section 36. A total of 3 Wind Farm Towers (wind turbines) are proposed in this Section 30 as follows:

- 1 Wind Farm Tower is proposed on a 70 acre parcel in the Northeast Quarter of the Northwest Quarter and the Northwest Quarter of the Northeast Quarter of Section 36 on land owned by Earl and Delores Ideus, 508 N. West St., Gifford, IL 61847
- 1 Wind Farm Tower is proposed on a 50 acre parcel in the North Half of the South Half of the Northeast Quarter of Section 36 on land owned by Royce and Shauna Ideus, 2229 CR 2600N, Gifford, IL 61847
- 1 Wind Farm Tower is proposed on a 157 acre parcel in the Southeast Quarter of Section 36 on land owned by Judith, Leroy and Bonita Kopmann, POB 7, Royal, IL 61871

Other participating landowners in Section 36 are the following:  
Leroy and Bonita Kopmann Trust, 117 Susan Drive, Dwight, IL 60420

#### PART B OGDEN TOWNSHIP

**Fractional Section 6, T20N, R11E of the 3<sup>rd</sup> P.M., Ogden Township.** The Special Use Permit includes all of Fractional Section 6 except the Fractional Northwest Quarter of Fractional Section 6 and except the North Half of the Southwest Fractional Quarter of Fractional Section 6 and except the Northwest Quarter of the Southeast Quarter of Fractional Section 6 and except the West Half of the Northeast Fractional Quarter of Fractional Section 6. Participating landowners in Fractional Section 6 are the following:

Delores Ann Harms Trustee, POB 87, Royal, IL 61871  
Mildred Hinrichs Trust, c/o Laveda Clem, 1982 CR 2100N, Urbana, IL 61822  
Herbert and Betty Osterbur, 302 Benjamin Street, Royal, IL 61871

**Fractional Section 6, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes all of Fractional Section 6, with exceptions. One Wind Farm Tower (wind turbine) is proposed in Fractional Section 6 as follows:

- 1 Wind Farm Tower is proposed on an 83.84 acre tract of land in the Southwest Quarter of Fractional Section 6 on land owned by Sylvia Flessner-Fulk, POB 837, St. Joseph, IL 61873

Other participating landowners in Fractional Section 6 are the following:

Darrell Bruns, c/o Marlys McCartney, 1113 Ascot Dr., Rantoul, IL 61866  
Kristi Bruns, c/o Marlys McCartney, 1113 Ascot Dr., Rantoul, IL 61866  
Neil Bruns, c/o Marlys McCartney, 1113 Ascot Dr., Rantoul, IL 61866  
Marlys McCartney, 1113 Ascot Dr., Rantoul, IL 61866  
Marvin and Bernita Harms Trust, 2592 CR 2145N, St. Joseph, IL 61873  
Gene and Deanna Osterbur Irrevocable Trust c/o Julie Carlson, 3828 East Whipporwhill Lane, Byron IL 61010  
Reka Sage, 2304A CR 3000N, Apt. 203, Gifford, IL 61847  
Wayne and Roxie Sage, 2545 CR 2400N, Ogden, IL 61859

**Fractional Section 5, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes all of Fractional Section 5, with exceptions. One Wind Farm Tower (wind turbine) is proposed in Fractional Section 5 as follows:

- 1 Wind Farm Tower is proposed on a 78.10 acre parcel in the Fractional North Half of Fractional Section 5 on land owned by Mark Loschen, 2455 CR 2050N, St. Joseph, IL 61873

Other participating landowners in Fractional Section 5 are the following:

Anna Albers, 2304A CR 3000N, Apt. 107, Gifford, IL 61847  
Albers Farm c/o Sandra J. King, POB 562, St. Joseph, IL 61872  
Douglas Frerichs, 2634 CR 2300N, Ogden, IL 61859  
Arnold and Delores Loschen Trusts, 2654 CR200N, Ogden IL 61859  
Gene and Deanna Osterbur c/o Julie Carlson, 3828 East Whipporwhill Lane, Byron IL 61010  
Wayne and Roxie Sage, 2545 CR 2400N, Ogden, IL 61859  
Dan Shearin, 2431 Parklake Drive, Morris, IL 60450

**Fractional Section 4, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes a 72.8 acre tract of land located in the West Half of the West Half of Fractional Section 4 and an 80 acre tract of land located in the South Half of the Southeast Quarter of Fractional Section 4. Participating landowners in Fractional Section 4 are the following:

Inez K. Britt, 2333 CR 2800E, Ogden, IL 61859

John and Erna Ludwig Living Trusts, c/o Judith Ludwig Gorham, 409 N. Cherry St., Galesburg, IL 61401

**Fractional Section 7, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes the Northeast Quarter of Fractional Section 7, with exceptions and a 60 acre tract of land in the East Half of the Southeast Quarter of Fractional Section 7. Participating landowners in Fractional Section 7 are the following:

Vernon and Wilma Buhr, 2152 CR 2400N, St. Joseph, IL 61873

Louis and Laverne Osterbur, 2293 CR 2600E, Ogden, IL 61859

**Section 8, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes all of Section 8 with the exception of 160 acres in the West Half of Section 8 and 60.85 acres in the Southeast Quarter of Section 8. Participating landowners in Section 8 are the following:

Albert J. Franzen, POB 206, Broadlands, IL 61816

John and Erna Ludwig Living Trust, c/o Judith Ludwig Gorham, 409 N. Cherry St., Galesburg, IL 61401

Jillene and Ben Henderson, 2651 CR 2150N, Ogden, IL 61859

Randall and Deanna Loschen, 2629 CR 1800N, Ogden, IL 61859

Union Pacific Railroad, 1400 Douglas, Stop 1640, Omaha, NE 61879

**Section 9, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes the Northwest Quarter of Section 9 and the Northeast Quarter of the Southeast Quarter of Section 9 and a 100 acre tract of land in the South Half of the Northeast Quarter and the West Half of the West Half of the Southeast Quarter of Section 9 and the East Half of the Southwest Quarter of Section 9. Participating landowners in Section 9 are the following:

Robert Scott Trust and Alsip Family Trust c/o Robert P. Scott, 107 Arrowhead Lane, Haines City, FL 33844

Robert and Joan Sattler Trusts, 207 McKinley, Milford, IL 60953

Busboom Family Trust c/o Glen L. and Billie J. Busboom, 2756 CR 2200N, Ogden, IL 61859

**Section 16, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes an 80 acre tract of land in the East Half of the Northeast Quarter of Section 16. Participating landowners in Section 9 are the following:

Carol Sage Peak, c/o Helen Green, 206 Ridgeview St., Danville, IL 61832.

Clifford Peak, c/o Helen Green, 206 Ridgeview St., Danville, IL 61832.

Helen Green, 206 Ridgeview St., Danville, IL 61832.

Waivers of standard conditions in Section 6.1.4 are required as follows:

**Attachment A. Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B**  
Case 696-S-11  
AUGUST 17, 2011

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1. Waive the standard condition of 6.1.4 A. 1.(e) that requires the special use permit area to include a minimum of 40 feet wide area for electrical lines
2. Waive the standard condition of 6.1.4 A.2.(b) that requires a wind farm to be a minimum of one mile from the CR District to allow wind farm wiring to be less than one mile from the CR District.
3. Waive the standard conditions of 6.1.4 C.3. and 6.1.4 C.8. that require the application to include copies of all private waivers of wind farm separations.
4. Waive the standard condition of 6.1.4 D. 1 (a) that requires certificates of design compliance from Underwriters Laboratories ("UL") or equivalent third party.
5. Waive the standard condition of 6.1.4 D.9 that requires wind farm towers to be protected by non-climbing devices 12 feet vertically from the base.
6. Waive the standard condition of 6.1.4 F.1. that requires a signed Roadway Upgrade and Maintenance Agreement prior to the close of the public hearing before the Zoning Board of Appeals.
7. Waive the standard condition of 6.1.4 F.1.u. that requires street upgrades be in accordance with IDOT Bureau of Local Roads manual, 2005 edition.
8. Waive the standard condition 6.1.4 I. 1. that requires the noise level of each wind farm tower and wind farm to be in compliance with the Illinois Pollution Control Board regulations at the residential property line rather than to be compliance just at the dwelling.
9. Waive the standard condition of 6.1.4 J. that requires the application to contain a copy of the Agency Action Report from the Illinois Department of Natural Resources Endangered Species Program.
10. Waive the standard condition of 6.1.4 P.4.(b) that requires the applicant to gradually pay down 100% of the value of the irrevocable letter of credit by placing cash deposits in an escrow account over the first 13 years of the Wind Farm operation.
11. Waive the standard condition of 6.1.4 S.1.(c)(3) that requires that locations of wind turbines for the zoning use permit application cannot increase the noise impact over that approved in the special use permit.

All persons interested are invited to attend said hearing and be heard. The hearing may be continued and reconvened at a later time.

Eric Thorsland, Chair  
Champaign County Zoning Board of Appeals

Case 696-S-11 California Ridge Wind Farm

ATTACHMENT B – Statutory Deadline for Wind Farm Siting  
Decisions by County Board

The following is excerpted from that part of the statutes that authorizes county zoning ((55 ILCS 5/5-12001):

(55 ILCS 5/5-12020)

Sec. 5-12020. Wind farms. A county may establish standards for wind farms and electric-generating wind devices. The standards may include, without limitation, the height of the devices and the number of devices that may be located within a geographic area. A county may also regulate the siting of wind farms and electric-generating wind devices in unincorporated areas of the county outside of the zoning jurisdiction of a municipality and the 1.5 mile radius surrounding the zoning jurisdiction of a municipality. There shall be at least one public hearing not more than 30 days prior to a siting decision by the county board. Notice of the hearing shall be published in a newspaper of general circulation in the county. Counties may allow test wind towers to be sited without formal approval by the county board. Any provision of a county zoning ordinance pertaining to wind farms that is in effect before the effective date of this amendatory Act of the 95th General Assembly may continue in effect notwithstanding any requirements of this Section.

A county may not require a wind tower or other renewable energy system that is used exclusively by an end user to be setback more than 1.1 times the height of the renewable energy system from the end user's property line.

(Source: P.A. 95-203, eff. 8-16-07; 96-306, eff. 1-1-10; 96-566, eff. 8-18-09; 96-1000, eff. 7-2-10.)

(65 ILCS 5/11-13-26)



Case 696-S-11 California Ridge Wind Farm

ATTACHMENT E – Excerpts from California Ridge Wind Energy  
Project Champaign County Special Use Permit Application Received  
July 1, 2011

### 3.2 GENERAL WIND RESOURCES

California Ridge has relied upon a number of sources of information to determine the wind resource in the Project area. These include publicly available wind resource maps, elevation data, data from nearby airports, and weather monitoring stations.

In addition, California Ridge has contracted with an independent wind resource assessment company, DNV Global Energy Concepts Inc. (DNV-GEC), to collect, quality control, validate, summarize, and transmit data for four 50- to 60-meter (164- to 197-foot) meteorological towers located within the Project area to obtain project-specific wind data. The four meteorological towers were installed between October 2008 and July 2009. The towers are manufactured by NRG Systems, Inc. The meteorological towers are temporary and will be removed when construction is complete. The site-specific wind data has confirmed that there is a sufficient wind resource to support a project of this type.

In addition to the wind power facilities discussed previously, California Ridge may site one or more permanent meteorological towers within the Project area to collect data during operation (towers are likely to be free-standing). If the tower is not freestanding, warning indicators, such as flags, reflectors, or tape, will be placed on the anchor point of any guy wires and along the guy wires up to a height of 15 feet from the ground.

### 3.3 FACILITY SITE PLAN

The facility will include wind turbines, access roads, transformers, communication and electric power collection cables, substation, permanent meteorological stations, overhead generation lead lines, other interconnection points with transmission lines, the O&M building, and any ancillary facilities or structures. Collectively, these are called the wind power facilities. The Project's substation, overhead generation lead line and the O & M facilities will be located in Vermilion County. The point of interconnection (POI) will be within an Ameren Corporation-owned (Ameren) existing switchyard and will be located in Vermilion County.

The Project will consist of 134 GE 1.6-100 MW turbines, of which 30 are anticipated to be built in Champaign County. This turbine model has a 100-meter (328-foot) hub height. A rotor diameter of 100 meter (328 foot) will be used (Figure 4-1). Each tower will be secured by a concrete foundation. The foundation design will be based on the soil conditions and will be stamped by a professional engineer. Each turbine will have an associated transformer that will display the proper voltage warning signs.

Each wind turbine will be accessible via all-weather access roads connecting to public roads. The access roads will be approximately 4.9 meters (16 feet) wide and low profile to allow cross-travel by farm equipment. California Ridge will work closely with the landowners in locating access roads to minimize land use disruptions to the extent possible. California Ridge is also currently negotiating road agreements for the Project with the Champaign County engineers and two township road commissioners for Compromise and Ogden Townships. Consideration will be given to locating access roads to minimize impact on current or future row crop agriculture and any environmentally sensitive areas.

A control panel inside the base of each turbine tower will house communication and electronic circuitry. A step-up transformer will be installed at the base of each turbine to raise the voltage from

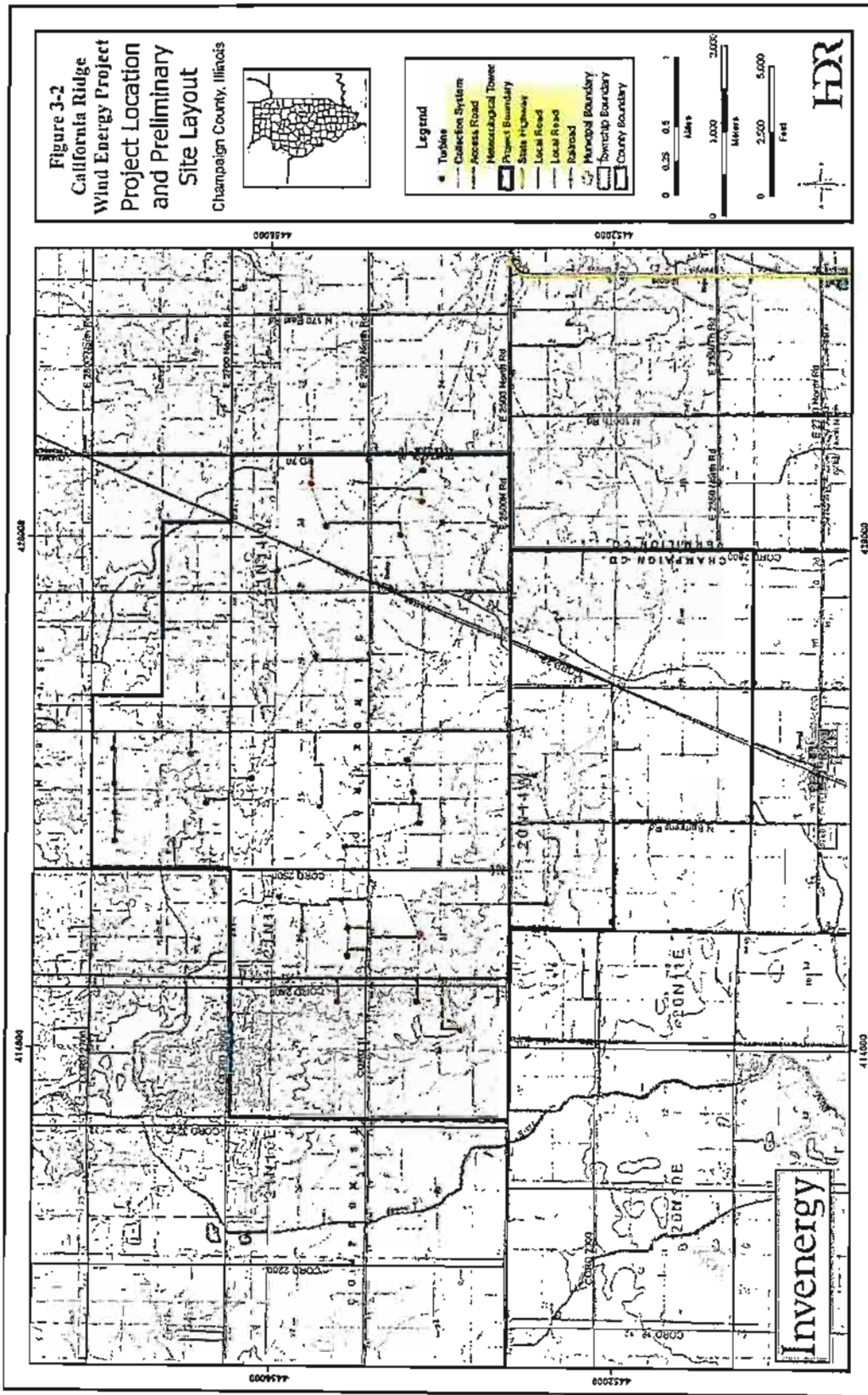
575 or 690 volts (V) to collection line voltage (34.5 kV). Power will be run through an underground collection system at a minimum depth of 4 feet to the Project feeder system that will feed power to a project 34.5/138 kV substation. Both power and communication cables will be buried in trenches on private property at a minimum depth of 4 feet.

The collection system and communication cable lengths are minimized by installing underground cables the shortest distance from turbine to turbine. The feeder system will deliver the power to the Project 34.5/138 kV substation. The substation will include a step-up transformer that raises the voltage again, from 34.5 kV to 138 kV. An overhead 138 kV generation lead line (approximately 9 miles long, constructed in Vermilion County and owned by California Ridge) will move the power to the Ameren interconnection switchyard from the Project substation. The Ameren interconnection switchyard is the point where the energy generated by the Project connects to Ameren's transmission system.

The Project 34.5/138 kV substation will conform to industry standards and will be owned by California Ridge. The Ameren switchyard will conform to Ameren's specifications.

The location of the Project 34.5/138 kV substation, Ameren switchyard, and Project transmission line are shown on Figure 3-1 and Figure 3-2. Figure 3-3 is a conceptual diagram of the path of energy from the wind farm to energy users. Figure 3-4 shows the typical wind farm facility layout in Champaign County.

The Project O&M facility will be constructed in Vermilion County. The O&M building will be approximately 7,000 square feet, and will house all the necessary equipment to operate and maintain all phases of the Project.



California Ridge will own and operate the Project. California Ridge expects to select one or more third-party contractors to perform all engineering, procurement, turbine and tower erection, and construction of the wind farm.

3.4 FACILITY SITING

California Ridge will develop a final site layout that optimizes wind resources while minimizing the impact on land resources and any sensitive areas that may potentially be located within the areas that would be approved through the Special Use Permit. California Ridge requests that the Champaign County Board grant the participating parcels listed in Appendix M the Special Use described in Ordinance No. 848. These final locations will be provided in the Champaign County Zoning Use Permit Application before construction begins and will adhere to the same requirements under Ordinance No. 848. The wind power facilities shown in Figure 3 1 and Figure 3 2 are preliminary and are subject to location adjustments based on final micrositing with landowners. These wind power facilities have been through a number of engineering iterations that have considered the issues relevant to this permit as well as issues relevant to the Champaign County Zoning Use Permit Application.

The wind power facilities will be sited on agricultural land. The topography of the site, wind resource assessment and the selected turbine technology will dictate turbine spacing. A description of turbine technology is presented in Section 4.1.

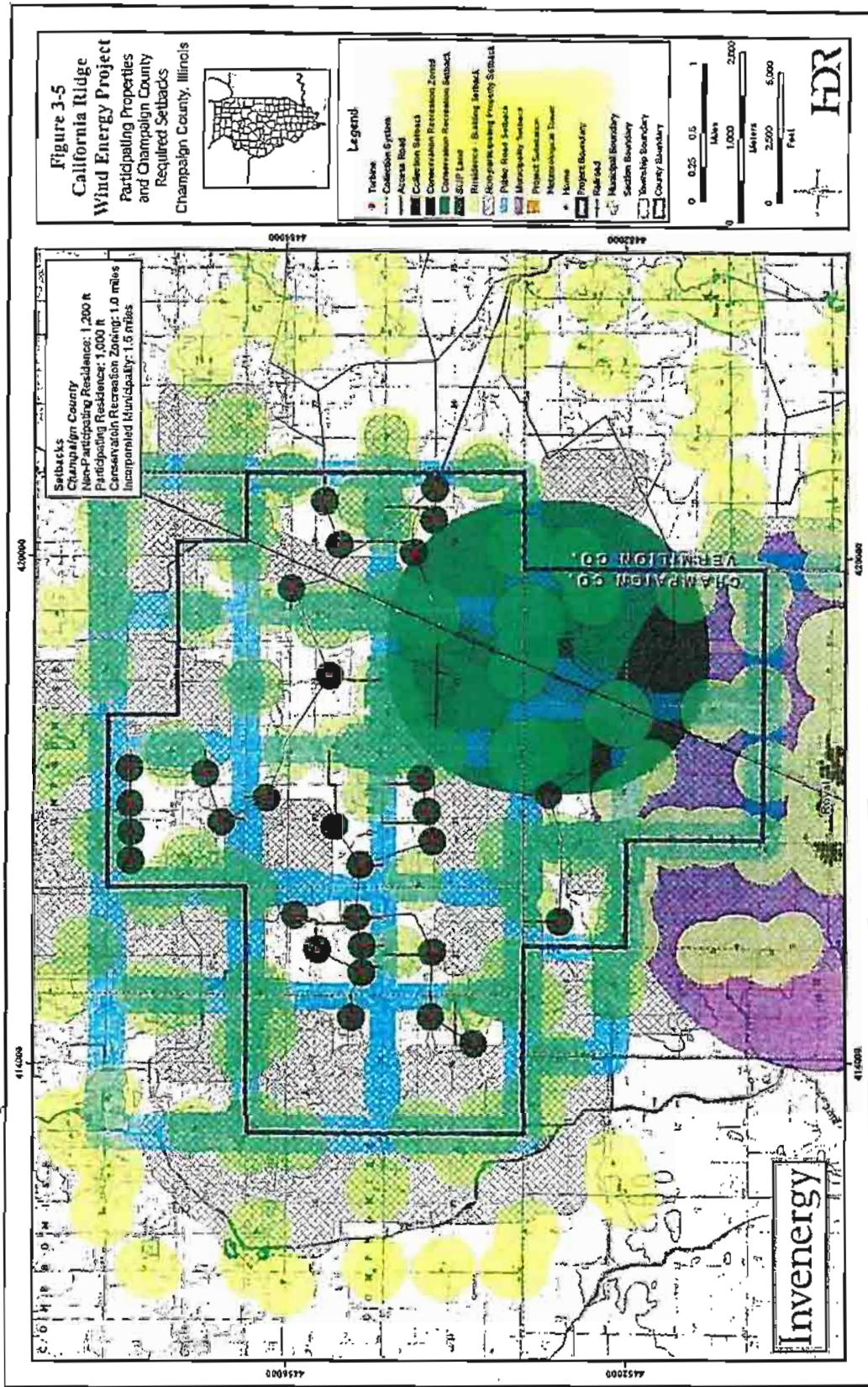
California Ridge will use equipment with a rotor diameter of 100 meters (328 feet). Tower heights will be 100 meters (328 feet). Total height of the turbine will be 150 meters (492 feet). In compliance with Champaign County wind energy structure ordinance, and unless an applicable waiver of setbacks is granted, the minimum turbine setbacks will be as follows:

- Non-participating residences or buildings..... 1,200 feet
- Participating residences or buildings .....1,000 feet
- Participating residences or buildings or adjacent property with private waver..... 1.1 times the total tower height (541 feet)
- Non-participating property lines..... 1.5 times the total tower height (738 feet)
- Public roads (from right of way)..... 1.5 times the total tower height (738 feet)
- Public roads (from right of way) within project..... 1.1 times the total tower height (541 feet)
- Other structures ..... 1.5 times the total tower height (738 feet)
- Conservation Recreation Zoning..... 1 mile setback
- Incorporated municipality with zoning..... 1.5 mile setback

A map showing these wind turbine setback requirements for the Project is included as Figure 3-5. The distance from such setback lines to the foundation at the base of each tower will conform to the applicable setback requirements set forth in section 6.1.4A , B and C of Ordinance No. 848.

Section 9.1.11.D of the Champaign County Zoning Ordinance, as amended (the "Zoning Ordinance"), provides that:

Any other provision of this ordinance notwithstanding, the BOARD or GOVERNING BODY, in granting any SPECIAL USE, may waive upon application any standard or requirement for the specific SPECIAL USE enumerated in Section 6.1.3 Schedule of Requirements and Standard Conditions, to the extent



that they exceed the minimum standards of the DISTRICT, except for any state or federal regulation incorporated by reference, upon finding that such waiver is in accordance with the general purpose and intent of this ordinance, and will not be injurious to the neighborhood or to the public health, safety and welfare.

In accordance with that provision, California Ridge hereby requests that the Champaign County Board (the "Board") waive the requirement of §6.1.4.A.1.(e) of Champaign County Ordinance No. 848 (the "Wind Farm Ordinance"), which requires that:

All necessary WIND FARM ACCESSORY STRUCTURES including electrical distribution lines, transformers, common switching stations, and substations not under the ownership of a PUBLICLY REGULATED UTILITY. For purposes of determining the minimum area of the special use permit, underground cable installations shall be provided a minimum 40 feet wide area.

This application for a waiver of the above requirement is based on several factors:

During construction, California Ridge will encounter field conditions which occasionally require re-routing of collections systems amongst a property. Landowner's drain tile, wetlands, conservation reserve program land and other items, which will not be known until immediately before construction or during construction, will require adjustment and relocation of underground cable installations. Authorizing California Ridge to relocate and adjust the location of underground cables will allow adjustments up until and during construction to ensure field conditions and landowner concerns are accounted for in the final wind farm design and construction.

For all of these reasons, California Ridge requests that the Board grant it a waiver from the requirements of §6.1.4.A.1.(e) of the Wind Farm Ordinance and proposes that the location dictated for special use related to underground cables is provided following construction with the submittal of as-built drawings at which time, the location of special use is permanently established.

**3.5 LAND RIGHTS****3.5.1 ZONING COMPLIANCE****3.5.2 ORDINANCE COMPLIANCE**

California Ridge will site its turbines to comply with Champaign County Ordinance No. 848 (Ordinance) in the participating parcels referenced in Appendix M. In Section 2, Table 2-1, California Ridge has outlined the requirements of the Ordinance and the section or reference within this Application that identifies how California Ridge will comply with the particular requirements.

The Project is in accordance with the general purpose and intent of the county Ordinance. As indicated in the Ordinance, Champaign County anticipates that the Project area will remain agricultural and has not designated it for development.

This Application will demonstrate that the Project satisfies each of the standards in the Ordinance. The California Ridge wind farm will be a valuable addition to Champaign County infrastructure.

**3.5.3 LANDOWNER AND DEVELOPMENT RIGHTS**

California Ridge has obtained wind rights and easements for a 214.4 MW project. Land rights will encompass the proposed wind power facilities, including, but not limited to, wind easements, wind turbines, access, and generation lead lines. Figure 3-5 shows the properties where California Ridge has obtained wind rights and easements and the setbacks as required in the Zoning Ordinance of the County of Champaign, Illinois. Appendix M references the participating parcels that are under contract with California Ridge, which this application requests granting of Special Use. Appendix M also contains the list of parcels which are within 250 feet of the participating parcels, including those which are participating.

California Ridge has worked extensively with local landowners, government officials, and other affected parties in the Project siting and development process. The Project will be constructed on approximately 62 separate parcels of farmland within Ogden and Compromise townships. California Ridge has entered into easement agreements with more than 90 Project participants for a term of up to 35 years. All of the land included in the Project is privately-owned.



## 4.0 PROJECT DEVELOPMENT

### 4.1 WIND POWER TECHNOLOGY

The Project will use wind energy to generate electricity. As the wind passes over the blades of a wind turbine, it creates lift and causes the rotor to turn. The blades are connected by a hub and main shaft to a system of gears, which are connected to a generator housed in the nacelle. The electricity is delivered from the generator to a transformer at the base of the turbine where voltage is stepped-up for connection to the project collection system. Wind-powered electric generation is entirely dependent on the availability of wind at a specific location. The energy generated is proportional to the cube of the wind velocity. In other words, a doubling of the wind speed will result in roughly an eightfold increase in power.

#### 4.1.1 DESCRIPTION OF WIND TURBINES

California Ridge will be using 134 GE 1.6-100 turbines in the Project area. Of these, 30 will be in Champaign County. The remaining turbines will be in Vermilion County. The turbine model being considered for the Project is a three-bladed, upwind, horizontal-axis wind turbine (Figure 4-1). The turbine rotor and nacelle are mounted on top of a tubular tower. The machine employs active yaw control (designed to steer the machine with respect to the wind direction), active blade pitch control (designed to regulate turbine rotor speed), and a generator/power electronic converter system from the speed variable drive train concept. A detailed description of turbine design is included in the brochures found in Appendix A. All electrical turbine components shall conform to applicable local, state, and national codes, and relevant national and international standards (e.g. ANSI and International Electrical Commission).

Section 9.1.11.D of the Champaign County Zoning Ordinance, as amended (the "Zoning Ordinance"), provides that:

Any other provision of this ordinance notwithstanding, the BOARD or GOVERNING BODY, in granting any SPECIAL USE, may waive upon application any standard or requirement for the specific SPECIAL USE enumerated in Section 6.1.3 Schedule of Requirements and Standard Conditions, to the extent that they exceed the minimum standards of the DISTRICT, except for any state or federal regulation incorporated by reference, upon finding that such waiver is in accordance with the general purpose and intent of this ordinance, and will not be injurious to the neighborhood or to the public health, safety and welfare.

In accordance with that provision, California Ridge hereby requests that the Champaign County Board (the "Board") waive the requirement of §6.1.4.D.9. of Champaign County Ordinance No. 848 (the "Wind Farm Ordinance"), which requires that:

ALL WIND FARM TOWERS must be protected from unauthorized climbing by devices such as fences at least six feet high with locking portals or anti-climbing devices 12 feet vertically from the base of the WIND FARM TOWER.

This application for a waiver of the above requirement is based on several factors:

The GE 1.6-100 turbines submitted in this permit application are freestanding, monopole tubular steel towers with a diameter of approximately 15 feet. Each tower would consist of five sections manufactured from steel plates. All surfaces are sandblasted and multiple layers of coating are applied for protection against corrosion. Access to the turbine is through a lockable steel door at the base of the tower. Rather than having a steel lattice structure, these wind turbines have a smooth, solid steel structure. Requiring anti-climbing devices and fences on a monopole tubular structure which is only accessible through a lockable steel door is both duplicative and unnecessary.

For all of these reasons, California Ridge requests that the Board grant it a waiver from the requirements of §6.1.4.D.9 of the Wind Farm Ordinance.

California Ridge will comply with all applicable county, state, and federal regulatory requirements, as well as applicable and appropriate industry standards. California Ridge will submit documentation from the turbine manufacturer demonstrating that the turbines used in the Project are manufactured in compliance with such standards. The turbines will be new and will not be experimental or prototype equipment. California Ridge will submit a final site layout prior to requesting building permits when equipment is selected and wind site optimization and micrositing are completed.

#### **Rotor**

The rotor consists of three blades mounted to a rotor hub. The rotor blades are constructed of fiberglass and epoxy or polyester resin. The hub is attached to the nacelle, which houses the gearbox, generator, brake, cooling system, and other electrical and mechanical systems. The Project will use a 100-meter (328-foot) rotor diameter with a rotor swept area of 7,853 square meters (84,539 square feet). All turbine rotors will rotate in the same direction.

The electrically actuated individual blade pitch systems act as the main braking system for the wind turbine. Braking under normal operating conditions is accomplished by feathering the blades out of the wind. Any single feathered rotor blade is designed to slow the rotor, and each rotor blade has its own back-up battery bank to provide power to the electric drive in the event of a grid line loss.

The turbine is also equipped with a mechanical brake located at the output (high-speed) shaft of the gearbox. This brake is only applied immediately on certain emergency-stops (E-stops). This brake also prevents rotation of the machinery as required by certain service activities.

#### **Tower**

The tower is a self-supporting, tubular steel tower, white in color, with a hub height of 100 meters (328 feet). The nacelle is mounted on the turbine towers, which consist of five sections manufactured from steel plates. All welds are made in automatically controlled power welding machines and are ultrasonically inspected during manufacturing per American National Standards Institute specifications. All surfaces are sandblasted and multi-layer coated for protection against corrosion. The tower has no external flanges or ladders and is designed so that it cannot be climbed from the outside. Access to the turbine is through a lockable steel door at the base of the tower. No appurtenances will be connected to any tower except in accordance with the county zoning ordinance.

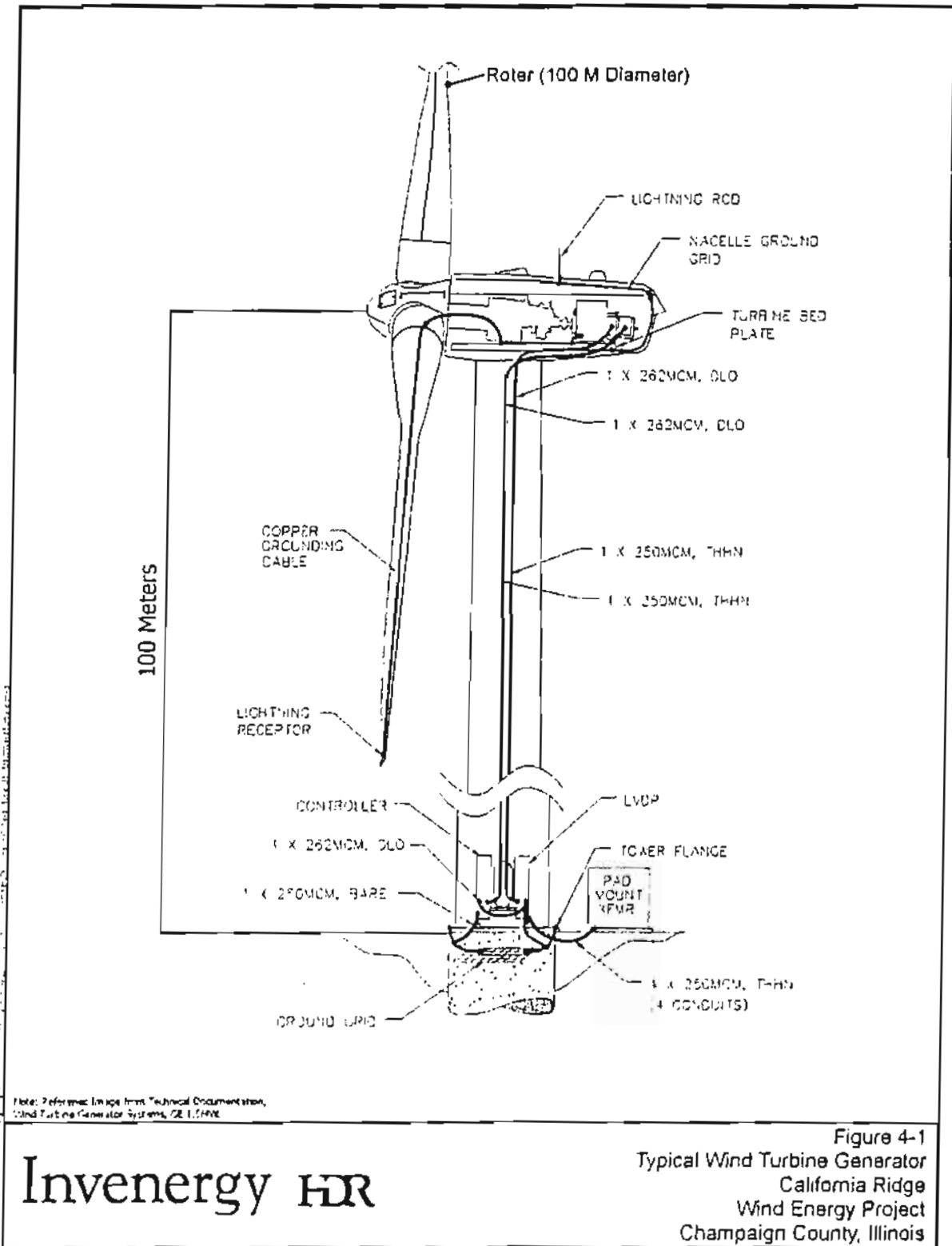
#### **Foundation Design**

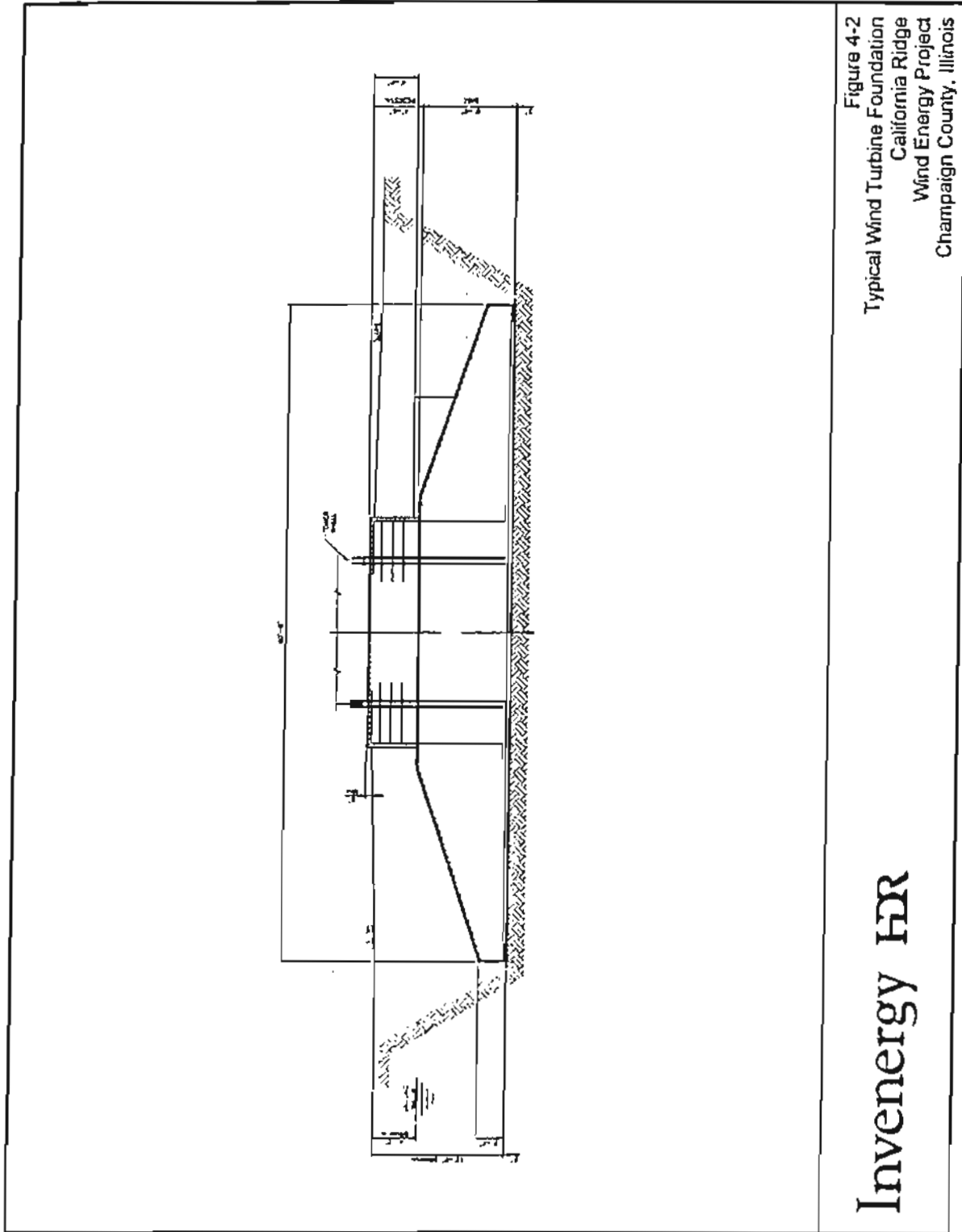
Each freestanding tubular wind tower will be connected by anchor bolts to an underground concrete foundation. Geotechnical surveys and turbine tower load specifications will dictate final design

parameters of the foundations. The foundation design will be engineered for the turbine type, site soils, and subsurface conditions at each turbine location. A common foundation design is a spread-footing type foundation which is typically an octagon approximately 18 to 19 meters (59 to 62 feet) in diameter with an approximate 1-meter (3- to 4-foot) pedestal, rebar, and anchor bolts. Figure 4-2 shows a typical wind turbine foundation that may be used for California Ridge, depending on ground-water conditions.

#### **4.1.2 ENGINEER'S CERTIFICATE**

Certified wind turbine tower and foundation design drawings and calculations, stamped by a professional engineer registered in the State of Illinois, will be provided to Champaign County following the granting of the permit approval. This detailed design typically occurs during the project design phase, usually several months prior to the beginning of construction. This foundation design takes into account the loadings for the specific turbine being used, in conjunction with site-specific geotechnical and soil conditions and requirements.





## 4.2 WIND FARM CONSTRUCTION

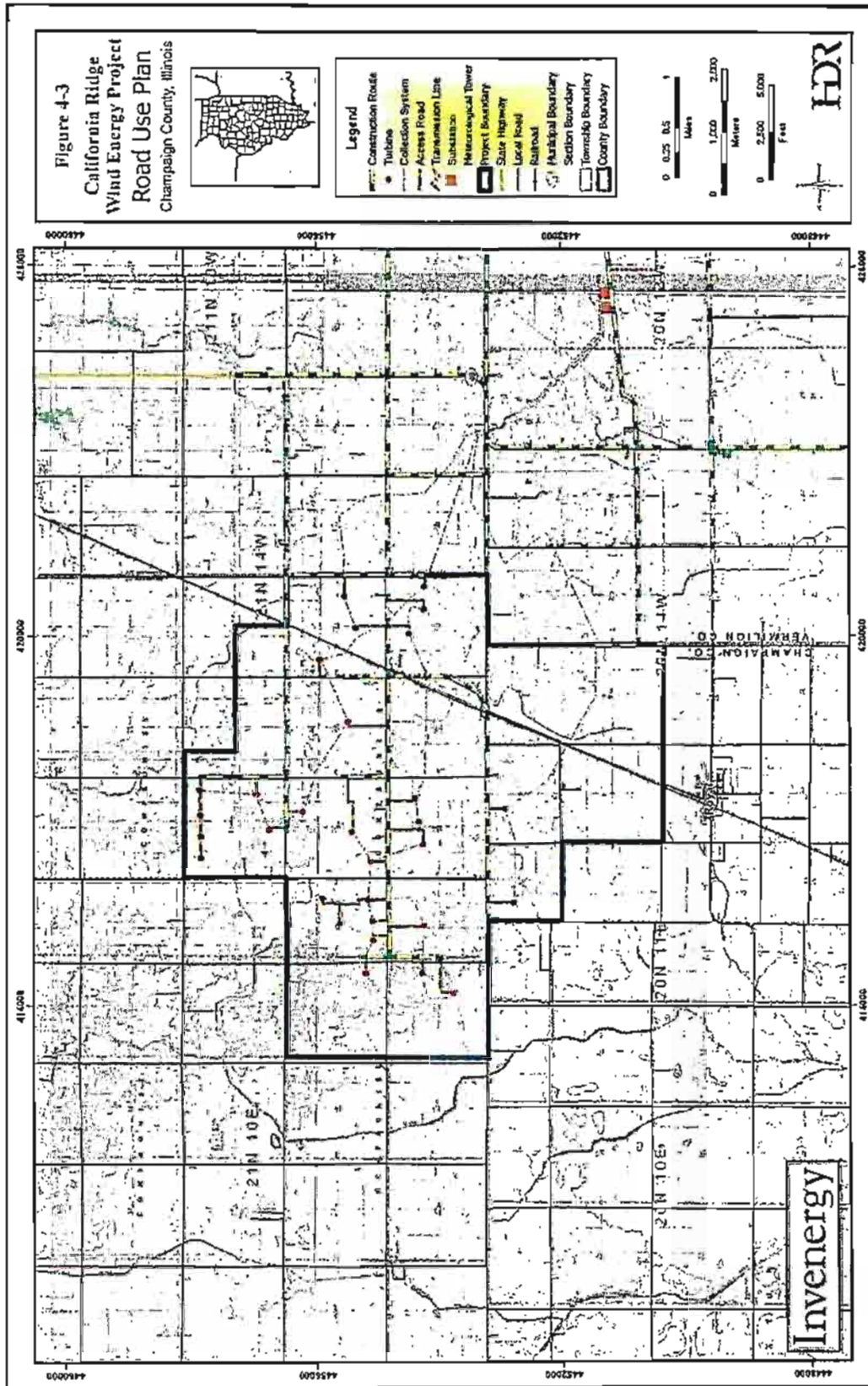
### 4.2.1 CONSTRUCTION ACTIVITIES

Several activities must be completed prior to the proposed commercial operation date. The majority of the activities relate to equipment ordering lead-time, as well as design and construction of the facility. Preconstruction, construction, and post-construction activities for the Project include:

- Ordering all necessary components, including wind turbine generators, foundation materials, electrical cable, and transformers
- Final turbine micro-siting
- Complete ALTA survey to establish locations of structures and roadways
- Soil borings, testing, and analysis for proper foundation design and materials
- Complete construction of access roads, to be used for construction and maintenance
- Installation of tower foundations
- Installation of underground cables
- Design and construction of Project substation
- Tower placement and wind turbine setting
- Commissioning of wind turbines
- Commencement of commercial operation

Access roads will be built adjacent to the towers, allowing access both during and after construction. The roads will be approximately 4.9 meters (16 feet) wide and have gravel as cover, adequate to support the size and weight of maintenance vehicles. The specific turbine placement will determine the amount of roadway that will be constructed for this Project.

During the construction phase, several types of light, medium, and heavy-duty construction vehicles will travel to and from the site. Private vehicles will also be used by construction personnel. At this time, California Ridge estimates that there will be 75 large truck trips per day and up to 200 small-vehicle (pickups and automobiles) trips per day in the area during peak construction periods. Of the 75 large truck trips, approximately 20 are expected to be wind turbine component deliveries. The balance is made up of concrete, aggregate, and miscellaneous delivery trucks. Construction is expected to take between 9 and 12 months with the peak construction period lasting 4 to 6 months. These numbers are currently being refined as part of a Traffic Impact Analysis that California Ridge is preparing as part of the proposed Roadway Use and Repair Agreement between California Ridge, the County Engineer, and the Township Road Commissioners. The peak volume will occur when the majority of the foundation and tower assembly is taking place. At the completion of each construction phase, this equipment will be removed from the site or reduced in number. Figure 4-3 shows the planned township and county roads expected to be used during Project construction. The Road Use Plan is being finalized with the County Engineer and the Township Road Commissioners.



#### 4.2.2 CIVIL WORKS

Completion of the Project will require various types of civil works and physical improvements to the land. These civil works include:

- Improvement of existing county and township roads at no cost to Champaign County or Ogden and Compromise townships, to deliver materials and components to the Project area
- Improvement of existing access roads to the Project area
- Construction of roads adjacent to the wind turbine strings to allow construction and continued servicing of the wind turbines
- Clearing and grading for wind turbine tower foundation installations
- Trenching for underground cabling to connect the individual wind turbines.

Any improvements to existing access roads will consist of re-grading and filling of the gravel surface to allow access during inclement weather. No asphalt or other paving is anticipated for access roads. Access road routing is being designed in consultation with each landowner and will be completed in accordance with local building requirements. Access roads will be located to facilitate both construction (cranes) and continued operation and maintenance. Siting roads in areas with unstable soil or wetland areas will be avoided.

All roads will include appropriate drainage and culverts while still allowing for the crossing of farm equipment. The roads will be approximately 4.9 meters (16 feet) wide and will be covered with road base designed to allow passage under inclement weather conditions. Once construction is completed, the roads will be re-graded, filled, and dressed as needed.

Temporary disturbances during construction of the Project include crane pads at each turbine site, temporary travel roads for the cranes, and temporary turning radii at certain county and township road intersections, temporary laydown areas around each turbine, trenching for the underground electrical collection system, and storage/stockpile areas. Construction of the GE turbine will include temporary impacts of approximately an additional 12 feet of roadway on either side of the permanent roadway (40-foot total width), a 40-foot by 120-foot gravel crane pad extending from the roadway to the turbine foundation, which will be graded to a minimum of 1 percent, and a 150-foot diameter rotor laydown area centered around the turbine foundation which will be graded to a minimum of 5 percent.

#### 4.2.3 COMMISSIONING

The Project will be commissioned after completion of the construction phase. The Project will undergo detailed inspection and commissioning procedures. Inspection and commissioning occurs for each component of the wind turbines, as well as the communication system, meteorological system, high voltage collection and feeder system, and the SCADA system.

#### 4.2.4 COMPLAINT HOTLINE

Prior to beginning construction, California Ridge will establish a telephone number hotline for the general public to call with any questions, comments, or complaints. The hotline will be available throughout the entire term of the County Board Special Use Permit and any extension. The telephone number will be publicized and posted at the O&M facility. The hotline will be manned during usual business hours. All complaints will be logged with the caller's name, address, and reason for calling. All calls will be recorded and those recordings will be kept for a minimum of two



years. California Ridge will take all necessary measures to resolve all legitimate complaints. A copy of the telephone number hotline shall be provided to the Zoning Administrator on a monthly basis.

### 4.3 PROJECT SCHEDULE

#### 4.3.1 LAND ACQUISITION

California Ridge will be responsible for all land acquisition, and will obtain the necessary easements from landowners. All required land easements for the Project, including all necessary access easements and utility easements, will be obtained prior to construction.

#### 4.3.2 PERMITS

California Ridge will be responsible for undertaking all required review, and will obtain all permits and licenses that are required following issuance of the Champaign County Special Use Permit. California Ridge anticipates that the Special Use Permit will expire in 10 years from time of Special Use Permit approval if no Zoning Use Permit is granted as per section 6.1.4 R of the Champaign County Zoning Ordinance; provided, however, such ten (10) year period shall be extended by any time periods necessary to resolve (i) any third party appeals of such County Board approval or (ii) any litigation that enjoins or otherwise effectively prevents California Ridge from completing construction under the Champaign County Special Use Permit. Copies of permits and licenses for the Project from federal, state, county, and municipal agencies can be supplied to Champaign County if required.

#### 4.3.3 CONSTRUCTION ACTIVITIES

The California Ridge construction contractors will be responsible for completing all Project construction, including roads, wind turbine assembly and erection, electrical, and communications work. The construction will take approximately 9 to 12 months to complete, and is planned to begin in fall 2011. California Ridge shall maintain a current general liability policy covering bodily injury and property damage with limits of at least \$5 million per occurrence and \$5 million in the aggregate. The same shall apply to all contractors and subcontractors during the construction process. The general liability policy shall identify landowners in the Special Use Permit as additional insured. Proof of such insurance shall be kept current and on file at the County Board office.

#### 4.3.4 EXPECTED COMMERCIAL OPERATION DATE

California Ridge anticipates that the Project will begin commercial operation prior to the end of December 2012.

#### 4.3.5 OPERATION AND MAINTENANCE

California Ridge will be responsible for the operation and maintenance (O&M) of the wind farm. Invenergy Services will perform the O&M services at the time of operation. California Ridge will provide reports of annual inspections by qualified wind power professionals to the Champaign County Environmental and Land Use Committee.

California Ridge will control, monitor, operate, and maintain the Project by means of the SCADA system. In addition to regularly scheduled on-site visits, the wind farm may be monitored via computer. Any physical modification to the wind turbine that alters the mechanical load, mechanical load path, or major electrical components shall be recertified by the Champaign County Zoning Ordinance. Authorization for modification will be granted by the Champaign County

Environmental and Land Use Committee and a relevant third party certifying entity in accordance with the Champaign County Zoning Ordinance subparagraph 6.1.4.D.1 (a).

#### 4.3.6 DECOMMISSIONING AND RESTORATION

California Ridge has a contractual obligation to the landowners to remove the wind turbines and foundations per the decommissioning plan when the wind easements expire. At the end of the Project's useful life, California Ridge expects to explore alternatives to decommissioning the Project. One such option may be to retrofit the turbines and power system with upgrades based on new technology.

In accordance with Champaign County's wind ordinance, California Ridge has prepared a decommissioning plan to be used in the event it removes the wind facilities (Appendix B), which provides for decommissioning within 6 months of the end of the Project's life or abandonment. The decommissioning plan states how the facility will be decommissioned, provides the structural engineer's estimate of the cost of decommissioning, and describes the financial resources that are available to pay for decommissioning.

In summary, the decommissioning plan states that California Ridge will be responsible for all costs to decommission the Project. Based on estimated costs of decommissioning and the salvage value of decommissioned equipment—which is the estimate used by a structural engineer—the salvage value of the wind farm will be less than the cost of decommissioning. Per industry standards, decommissioning costs are estimated to be approximately \$98,000 per turbine in current dollars. The current scrap steel price is approximately \$380 per ton, based on the June 2011 *steelonthenet.com* report. Given that market values fluctuate and the price of steel historically has shifted from \$106 to \$455 per ton, turbine salvage values can range between \$40,688 and \$174,785. However, internal turbine components and generators can also be salvaged for resale and reuse. Therefore, the salvage or resale value of each turbine is estimated to be \$180,785. This does offset the anticipated decommissioning costs.

California Ridge's easement agreements with each landowner provide that the foundations (down to three feet) and wind turbines be removed at the end of their useful life. The easement agreement includes a provision that, in the event that the Project is unable to meet its obligations to decommission the wind turbines and foundations, a decommissioning fund will be established during the fifteenth year of the Project, and will be held in escrow for the benefit of landowners. Any decommissioning security requirement by the county that exceeds these terms will be implemented and will supersede these terms.

Site decommissioning and restoration will involve removal of towers, turbine generators, transformers, foundations, buildings, and ancillary equipment up to a depth of 3 feet below grade. All access roads will be removed unless the affected landowner provides written notice that the road or portions of the road shall be retained. Additionally, any disturbed surface shall be graded, reseeded, and restored as nearly as possible to its preconstruction condition.

## 5.0 ENVIRONMENTAL ANALYSIS

### 5.1 DESCRIPTION OF THE ENVIRONMENTAL SETTING

The Project is located in an area that is predominantly rural with an agricultural-based economy. Corn and soybeans are the predominant crops. The landscape in the Project area is relatively flat with gently rolling hills.

### 5.2 NOISE

Section IX of the Ordinance requires that noise levels from each WECS or WECS Project be in compliance with applicable Illinois Pollution Control Board (IPCB) regulations. IPCB regulations (Illinois Rules Title 35: Environmental Protection, Subtitle H: Noise, Chapter I: Pollution Control Board, Part 901 – Sound Emissions Standards and Limitations for Property Line Noise Sources) limit maximum allowable noise emissions. Table 5-1 presents the maximum allowable noise emissions of a Class C (commercial and industrial) land use to a Class A (residential) land use.

**Table 5-1**  
**Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any**  
**Receiving Class A Land from Class C Land**

Time of Day	Octave Band (dB)								
	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Daytime	75	74	69	64	58	52	47	43	40
Nighttime	69	67	62	54	47	41	36	32	32

The most stringent IPCB limitations apply to noise emitted to receiving properties that contain residential uses. The analysis results described below demonstrate that noise from a GE 1.6-100 wind turbine does not exceed the noise limits in Title 35 of the Illinois Rules. California Ridge will comply with the IPCB noise regulations. California Ridge hereby certifies such compliance.

#### 5.2.1 DESCRIPTION OF RESOURCES

In May 2009, HDR measured existing noise levels at two locations in the Project area within Champaign County for 24 hour periods. HDR selected monitoring locations by reviewing digital aerial photographs of the Project area and identifying areas where the ambient acoustical environment appeared to be representative of the Project area (see Appendix A in Appendix C).

The noise monitoring data represent the ambient acoustic environment of rural, agricultural areas in the Project area that were generally expected to have quiet ambient daytime and nighttime noise levels. However, existing noise levels at all monitoring sites exceed nighttime maximum allowable noise limits in a total of seven octave bands (125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz). Existing ambient noise levels ( $L_{eq}$ ) ranged from 34 to 62 dBA. Daytime background noise levels were dominated by vehicular traffic and natural sources. Nighttime background noise levels were generally dominated by natural sources. Details of the noise monitoring are included in Appendix C.

#### 5.2.2 INVENERGY CALIFORNIA RIDGE NOISE ANALYSIS

Project-related noise was evaluated using the Cadna-A model. Modeling results were combined with monitoring data, and compared with maximum allowable noise levels under Illinois Rules. The

monitoring, modeling, and compliance determinations were applied on a spectral basis, i.e. to each of the eight frequency octave bands that comprise the applicable Illinois regulation (Illinois Rules Title 35: Environmental Protection, Subtitle H: Noise, Chapter I: Pollution Control Board, Part 901 – Sound Emissions Standards and Limitations for Property Line Noise Sources). The conclusions of this analysis are summarized below (see Appendix C, Invenergy California Ridge Noise Analysis, for full report).

### 5.2.3 IMPACTS

#### Operation Noise

When in motion, wind turbines emit a perceptible sound. Sound is generated from the wind turbine at points near the hub or nacelle (100 meters [328 feet] above the ground), and at the blade tip during blade rotation. Therefore, for modeling purposes, the noise source could be considered to be spherical. The noise level varies with the speed of the turbine, environmental conditions, and the distance of the listener from the turbine.

GE published sound power emission levels for their GE 1.6-100 turbine, as shown in Table 5-2. This data is representative of the sound power levels from the GE 1.6-100 turbines expected to be used for this Project. Noise emissions for maximum operating conditions were evaluated based on spectral noise emissions at 14 m/s, which is modeled at the hub height.

Table 5-2  
Sound Power Emissions from GE 1.6 GE 1.6-100 xle MW Turbine

Model number	Octave Band Sound Power (dB)								
	31 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
GE 1.6-100 Turbine	82.5	92.2	95.9	95.2	95.5	99.9	99.3	90.5	71.6

General Electric's sound power levels were based on the results in which a GE 1.6-100 turbine was tested at a 14 m/s (31 mile/hour) wind speed (at the hub height), the wind speed that produces the loudest manufacturer stated noise level. Therefore turbine noise emission levels produce a conservative analysis and overestimate turbine noise levels during lower wind conditions. Newer generation turbines, such as the GE 1.6-100, use variable speed rotors that produce lower levels of aerodynamic noise at low wind speeds, as opposed to previous generations' constant-speed designs, which generate the same amount of noise regardless of wind speed. Given this, older designs tend to be more audible during low wind conditions. This conservative modeling ensures that turbine noise levels are not under-predicted.

Cadna-A, an acoustical analysis software package designed for evaluating environmental noise from stationary and mobile sources, was used to evaluate Project-related noise. Cadna-A is a three-dimensional noise model based on ISO 9613, "Attenuation of Sound during Propagation Outdoors," adopted by the International Standards Organization (ISO) in 1996. This standard provides a widely accepted engineering method for calculating outdoor environmental noise levels from sources of known sound emission.

California Ridge modeled the noise levels from the GE 1.6-100 turbines. Using turbine noise emissions data provided by GE. The modeled noise levels are representative of the levels from the

GE 1.6-100 turbines expected to be used for the Project. A total of 553 receptors (at residences) were modeled for the Project area. A total of 260 receptors identified within Champaign County were modeled for the project. Of these receptors, none were shown to be above noise levels specified by IPCB regulations.

A total of 134 wind turbine generators (the noise sources), each having a hub height of 100 meters were evaluated using Cadna-A. Project-related noise levels were calculated at 553 residences (the noise receivers) within one mile of the Project area. The digital terrain model reproduced the physical terrain of the Project area, encompassing approximately 10,193 acres in Champaign County. Coordinates for the turbine and residence locations, as well as the terrain contours, were obtained from the geographic information system (GIS) database created for this Project. Modeling results were compared with maximum allowable noise levels under Illinois Rules. The monitoring, modeling, and compliance determinations were applied on a spectral basis, that is, to each of the eight frequency octave bands that comprise the applicable IPCB regulations. A summary of the results of this analysis are below and the report is attached as Appendix C. In summary:

- Existing ambient noise levels ( $L_{eq}$ ) were measured within the Project area and ranged from 34 to 62 dBA.
- Existing noise levels exceed daytime maximum allowable noise limits in a total of four octave bands (500 Hz, 1 kHz, 2 kHz, and 4 kHz).
- Existing noise levels at all monitoring sites exceed nighttime maximum allowable noise limits in a total of eight octave bands (63 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz).
- Daytime analysis results indicate that noise from 134 wind turbines are at least 7 dB below the maximum allowable noise limit in all octave bands at all noise-sensitive receivers within 1 mile of the Project area.
- Nighttime analysis results indicate that noise from 134 wind turbines are at least 1 dB below the maximum allowable noise limit in all octave bands at all noise-sensitive receivers within 1 mile of the Project area.

#### 5.2.4 MITIGATION MEASURES

Due to technological advancements in design, noise levels for today's generation of wind turbines are lower than that of their predecessors, especially at high wind speeds. Furthermore, the character of noise produced is more broadband in nature and largely absent of tones or impulsive qualities. In any event, any noise generated by during Project operation will be in compliance with IPCB limits.

#### 5.3 SHADOW FLICKER

As wind turbine blades rotate, they can cast a shadow on the ground and objects below. A strobe effect can occur where the shadow of the rotating blades cause rapid changes in light intensity. These rapid changes in light intensity can be troublesome when they affect a sensitive receptor, such as the windows of residences. Shadow flicker can occur if a turbine is located near a home and the home is in a position where the moving blade shadow is cast upon the residence. Obstacles, such as trees or buildings, between the wind turbine and a potential shadow flicker receptor can reduce or eliminate the effects. Changes in elevation can either reduce or increase the effects.

No shadow flicker occurs on overcast days, or when the turbine rotor and blades are not rotating, such as when winds are calm. Because the wind turbine is designed to turn and face into the wind,

shadow flicker is less pronounced when the wind direction is perpendicular to the direction of the wind turbine, as viewed from the receptor. By contrast, the shadow flicker is more pronounced during sunlight hours when the wind blows from a direction near parallel with a line between the wind turbine and the receptor.

The rate of changes in light intensity is a function of the rotational speed and the number of blades on the rotor. This rate, or "blade pass frequency," is measured in cycles per second, or Hz. Each complete change in light intensity, from the beginning of one shadow to the beginning of the next shadow, is considered one cycle.

California Ridge proposes to use wind turbines having three blades that are designed to operate at between 10 and 20 rpm. For this range of rotational speeds, the blade pass frequency would range from 0.5 to 1.0 cycle per second.

Areas most likely to experience shadow flicker would be those to the east and the west of the turbine tower locations. The number of hours per year during which shadow flicker could occur decreases as distance from the turbine increases, even for residences that are located to the east and west of the turbines. There are three reasons why this is so:

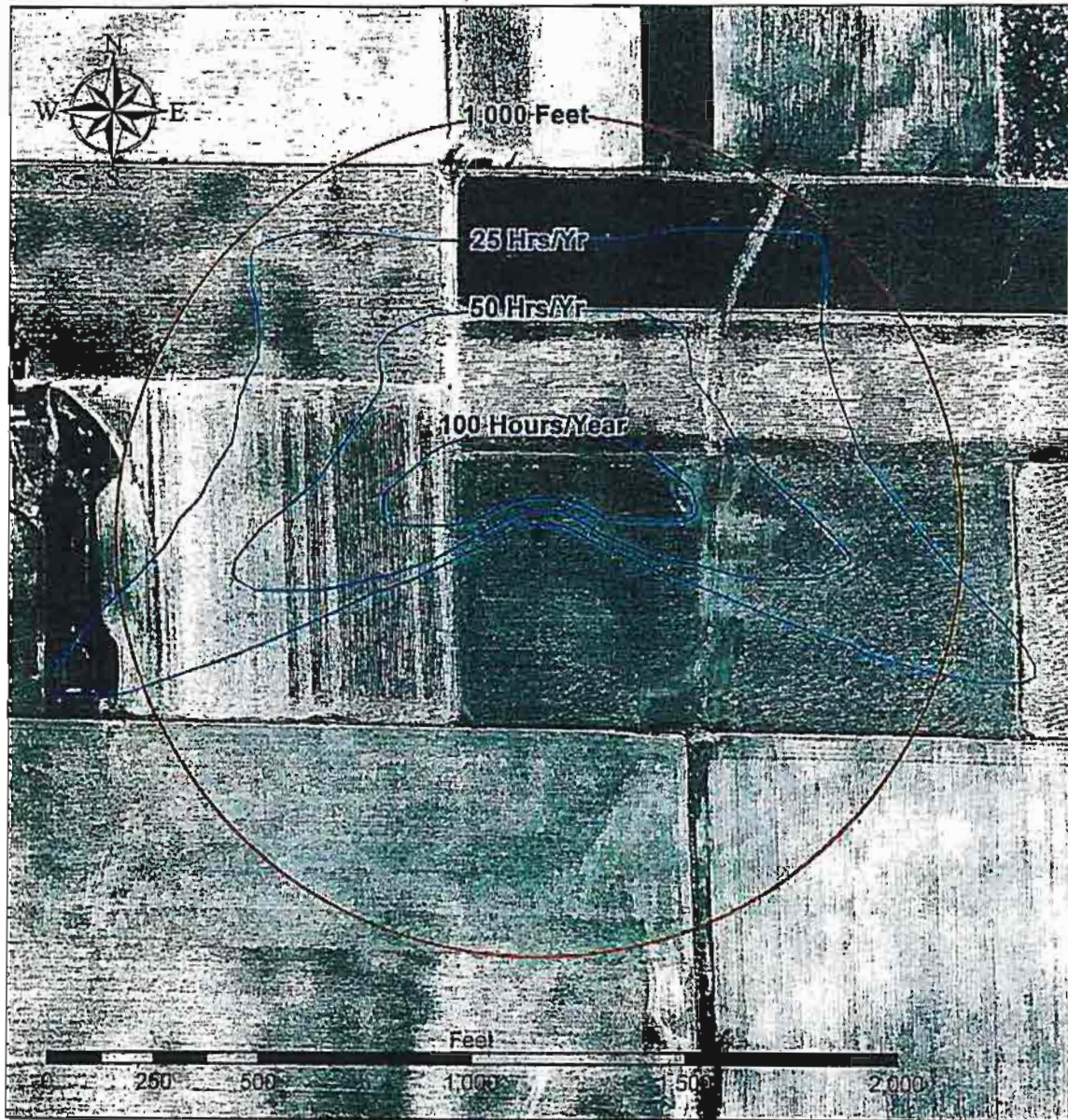
- As the season passes from winter to summer, the shadow angles at sunrise and sunset move from north to south. Since this angle changes, a residence further from the turbine would most likely experience shadow flicker only during a few days per year.
- As the sun rises or sets, the turbine shadow length changes rapidly, so that a residence farther from the turbine location would experience shadow flicker for only a short time during the day.
- A discernable shadow forms or dissipates within 15 to 45 minutes of sunrise or sunset, depending on sky conditions.

Figure 5-1 illustrates the shadow effect in the Project Area. Appendix G shows the results of a shadow flicker analysis of the current project layout.

The expected hours of shadow flicker per year were calculated for 333 receptors in the vicinity of California Ridge Wind Farm Project. The results of the shadow flicker modeling show that the impacts on nearby receptors are expected to be minor, with all homes experiencing less than 30 hours of shadow flicker during the summer and winter months. The majority of flicker will occur during work hours when residents are not as likely to be at home.

It should also be noted that the shadow flicker modeling software package employs several conservative assumptions. The model assumed that all receptors have a direct in-line view of incoming shadow flicker ("Green House" mode), when in reality, windows will not always be facing the sun when shadow flicker is expected to occur. The model did not consider the effects of screening (such as trees or buildings), distance to turbine, and other factors that will influence shadow intensity. As a result, the actual impact of shadow flicker on the receptors will likely be less than that suggested by these results and so shadow flicker is not expected to be a significant environmental concern at this site.

Figure 5-1 Shadow Effect Likely Hours per Year of Shadow Flicker



### 5.3.1 MITIGATION MEASURES

As part of the final micro-siting, turbines will be sited to reduce the effect of shadow flicker on nearby residences.

## 5.4 PUBLIC SERVICES AND INFRASTRUCTURE

### 5.4.1 DESCRIPTION OF RESOURCES

The Project is located in a lightly populated, rural area in east-central Illinois. There is an established transportation and utility network that provides access and necessary services to the light industry, small villages, homesteads, and farms existing near the Project area. No villages, towns, or cities are located within the Project area. The Village of Royal is located within 1 mile of the Project area, but no turbines are located within 1.5 miles of the village. The villages of Ogden, Royal, and Gifford are located within 5 miles the Project area.

While many of the surrounding municipalities provide water and sanitary services within their boundaries, these services are unavailable within the Project area. Fire protection in the Project area is provided by volunteer fire protection districts in Fithian, Ogden/Royal, and Oakwood. Once the layout is finalized, California Ridge will meet with each of the volunteer fire protection districts that serve the Project area to discuss the Project's health and safety matters and provide them with a copy of the site plan.

The larger surrounding cities provide police, fire, and emergency medical services for other villages in the Project area. The townships affected by the Project have limited public infrastructure services, which is typical of most townships. Homes typically use private septic systems and water wells for their household needs.

The Chicago and Eastern Illinois railroad runs diagonally from northeast to southwest through the eastern portion of the Champaign County portion of the Project. See Figure 3-1 and Figure 3-2.

#### Electrical Service

The primary utility corridors running through the Project area are local distribution lines. Several high voltage transmission lines run generally north/south and west from the Dynegy Power Station, located in Vermilion County, in the southeast corner of the Project area (Figure 5-2). The proposed overhead transmission line will be located in Vermilion County.

### 5.4.2 MATERIALS HANDLING, STORAGE, AND DISPOSAL

Solid waste generated on site related to the construction, operation and maintenance of the facility will be removed from the site promptly and disposed of in accordance with all federal, state, and local laws. Additionally, all hazardous materials related to the construction, operation, and maintenance of the facility will be handled, stored, transported and disposed of in accordance with all applicable local, state, and federal laws.

Refer to Section 5.9 for information regarding hazardous materials.



### 5.4.3 ROADS

County and township roads that run coincident with section lines characterize the majority of the existing roadway infrastructure in and around the Project area. State Highway 49 runs north/south through the middle of the Project area. The existing traffic volumes on the area's roadways are documented in Table 5-3. For purposes of comparison, the functional capacity of a two-lane paved rural highway is in excess of 5,000 vehicles per day, or average daily traffic (ADT). The highest existing ADT in or near the Project area is along State Route 49, which carries 1,650 ADT. California Ridge is currently in negotiations to finalize a comprehensive Roadway Use and Repair Agreement (Appendix H) with the county engineers and township road commissioners in the Project area. The Roadway Use and Repair Agreement will ensure that California Ridge modifies county and township roads as needed to accommodate construction equipment, and repairs any damage to those roads and is a requirement for Project construction activities.

Table 5-3  
Existing Daily Traffic Levels

Roadway Intersection Description Champaign County, Illinois	Existing Average Annual Daily Traffic
<b>Along State Route 49</b>	
Between Interstate 74 and US Route 136	1,650
<b>Along Penfield Road</b>	
Between Hensley Road and County Road 2500 N	950
<b>Along County Road 2500 N</b>	
Between State Route 49 and Country Road 2400 E	175
<b>Along County Road 2700 N</b>	
Between State Route 49 and County Road 2500 E	75

Source: Illinois Department of Transportation, NAVTEQ 2009

### 5.4.4 SEWER AND WATER

The Project will comply with all septic and well regulations required by the County Health Department and the Illinois Department of Public Health. The Project will not include the installation of a septic system, except at the O&M facility, which will be located in Vermilion County. The contractor will supply portable sanitary facilities for site personnel during construction. Once commercial operation begins, there will be no need for permanent sanitary facilities, except at the O&M facility.

The Project does not include the installation of any wells, except at the O&M facility. As noted below, if it is necessary to abandon any existing wells, they will be capped as required by applicable regulations.

### 5.4.5 IMPACTS

The Project is expected to have a minimal effect on the existing infrastructure. The following is a brief description of impacts that may occur during the construction and operation of the Project.

- **Railroad.** Construction of the Project is not anticipated to affect the use of the Chicago and Eastern Illinois railroad. California Ridge will coordinate with the railroad owner/operator to

obtain any easements required to cross the railroad and to ensure that the collection system and access roads do not interfere with the railroad.

- **Electrical Service.** Construction of the Project will add up to 134 wind turbine generators, a pad-mounted transformer at the base of each turbine, an underground electrical collection system (34.5 kV), and a Project substation (138 kV/34.5 kV) which will be located in Vermilion County. At the Project substation, the electric voltage will be stepped up to 138 kV, and travel to the POI where it will enter the high voltage grid. Additionally, a new breaker will be installed at the existing substation in the Ameren substation near the Vermilion Power Plant.
- **Roads.** Constructing the Project will require the addition of gravel access roads connecting each turbine to local roads. Construction will also require upgrade of certain township and county roads, at no cost to the county or townships, to meet the expected material loads and equipment delivery needs. In addition, during operation of the Project, the access roads will be used by O&M crews while inspecting and servicing the wind turbines. The access roads may be between towers, offset as necessary to allow for adequate crane access. The roads will be approximately 4.9 meters (16 feet) wide and low profile to allow cross-travel by farm equipment. California Ridge will work closely with the landowners to locate these access roads to minimize land-use disruptions to the extent possible. Additionally, California Ridge is working to establish a Roadway Use and Repair Agreement (Appendix H) with the township road commissioners and county engineers to ensure county and township roads are repaired if they are damaged during construction.

California Ridge estimates that there will be 75 large truck trips per day and up to 200 small-vehicle (pickup and automobile) trips per day in the area during peak construction periods. The maximum construction workforce is expected to generate approximately 275 additional vehicle trips per day. Using any combination of county highways and roads throughout the Project area, the traffic impacts are considered negligible. The traffic projections for construction will not significantly impact public health and safety because the local roads are designed to carry more than 275 additional trips per day.

Truck access to the Project area is generally provided by State Highway 49 and other various state and county routes. Specific additional truck routes will be dictated by the location required for delivery. Additional operating permits will be issued by the county for over-sized truck movements.

- **Water Supply.** Construction and operation of the Project will not significantly affect the water supply. The installation or abandonment of any wells is not required for the Project, with the exception of one well that will likely be installed at the O&M facility. However, in the event wells are abandoned, they will be capped as required by applicable regulations. In the event a temporary concrete batch plant is located within the Project area, a separate permit will be required from the applicable county. At this time, California Ridge is not requesting a permit for a well to serve a concrete batch plant. The Project will not require appropriation of surface water or dewatering. It is likely that the Project will require a single domestic-sized well for the O&M facility, which will be located in Vermilion County.

- **Telephone and Fiber Optic.** Construction and operation of the Project will not negatively affect the telephone and/or fiber optic service to the Project area. The Illinois Joint Utility Locating Information for Excavators system, known as J.U.L.I.E., will be contacted prior to construction to locate and avoid underground facilities. To the extent Project facilities cross or otherwise affect existing telephone or fiber optic lines or equipment, California Ridge will enter into agreements with service providers to avoid interference with their facilities.

#### 5.4.6 MITIGATION MEASURES

Construction and operation of the Project will be in accordance with all applicable federal and state permits and laws, as well as industry construction and operation standards. California Ridge will enter into a comprehensive Roadway Use and Repair Agreement with Champaign County and townships for construction of the Project. The Roadway Use and Repair Agreement will ensure that California Ridge modifies county and township roads as needed to accommodate construction equipment, and repairs any damage to those roads resulting from Project construction activities. Due to the minor impacts expected to the existing infrastructure during Project construction and operation, extensive mitigation measures are not anticipated.

California Ridge will develop a project-specific Environmental Health and Safety Manual (EHS Manual) that conforms to federal Occupational Safety and Health Administration (OSHA) regulations.

During construction of the Project, contractors are required to develop their own Emergency Response Plans and training programs for their employees. In addition to the EHS Manual, California Ridge will develop a separate Project Emergency Response Plan which will specify how to respond to a host of emergency situations. Employees will be trained to respond to emergency situations and this training will be offered to the local fire districts. California Ridge is also working directly with each of the four volunteer fire protection districts to determine if additional training, equipment, or funding is needed to enable them to respond to emergency situations on the wind farm.

### 5.5 TELEVISION, RADIO, AND TELECOMMUNICATIONS INTERFERENCE

This section assesses the potential for interference with various types of communication, including telecommunications and broadcast communication. California Ridge contracted with Comsearch, a communications consultant, to evaluate the potential effect of the Project on existing nonfederal government microwave telecom systems.

#### 5.5.1 DESCRIPTION OF RESOURCES

##### Microwave Paths

California Ridge hired Comsearch to identify microwave telecom systems that traverse the Project area. Using Wind Power GeoPlanner software, the firm made a geographical representation of registered fixed microwave paths in the 900 megahertz (MHz) to 23 gigahertz (GHz) frequency band range.

Because microwave communication is a line-of-sight technology, any interference with microwave telecom signals can be avoided by locating wind turbines outside of the microwave communications profile. Comsearch calculated a Worst Case Fresnel Zone (WCFZ) for each of the microwave paths

in the area. The middle of the path is where the widest (the worst case) Fresnel Zone appears. The affected paths were then overlaid on topographic base maps for the Project area.

The report shows that there is one microwave path that intersects the Project boundary in Champaign County. There are eight total microwave paths within approximately five miles of the entire Project area. These are shown on Figure 5-3. Because federal law does not permit interference with registered or licensed microwave pathways, California Ridge will position the turbines outside the existing WCFZ to avoid any interference. Some typical size relationships are provided below:

- Microwave antenna height is 25 meters-plus (82 feet) and antennas are typically located on water towers, television towers, building roofs, and shared commercial towers.
- The width of the WCFZ for 2.1 GHz is approximately 37 meters (121 feet).
- The width of the WCFZ for 6.7 GHz is approximately 16 meters (52 feet).
- The width of the Project area is approximately 23,400 meters (14 miles).

#### Television

California Ridge has committed to resolve television interference problems by improving the affected antenna, changing the antenna location, or installing relays to re-transmit and boost the affected signal. Installing satellite television is another option. Television reception issues will be dealt with on a case-by-case basis by working with any affected residents to identify the best solution.

California Ridge will work with local broadcasters to address any complaint that occurs after construction of the Project. As stated previously, California Ridge will resolve any issues with television reception on a case-by-case basis.

#### Cellular and Two-way Radio

There is no evidence that wind turbines interfere with individual cell phones or two-way radio communication. In fact, turbine maintenance personnel often use cell and radio equipment in the performance of their work. The turbines are not likely to introduce problems with two-way radio if the towers are not adjacent to the microwave transmitting and/or receiving antennas. In some areas, cell phone antennas are installed on turbine towers.

### Wireless Internet

Wireless communication has become an indispensable tool for providing data communications in a variety of industries. Point-to-multipoint links are frequently used to connect a central tower or "master" site to a group of subscriber devices. A common application of this arrangement is broadband internet service. Point-to-point (PTP) wireless links typically connect one or more towers or connect a tower to a network operation center, which provides access to fiber-optic or other communications media. PTP links are found in a wide range of sectors, from public safety to telecommunications to utilities. Wireless system reliability and performance is strongly affected by the strength of an incoming signal. To maximize signal strength, links are usually designed with a clear line-of-sight between antennae.

Some of the new wireless Internet providers choose not to register with the Federal Communications Commission (FCC) and they may be at risk. Non-FCC registered service providers may need to provide some additional information about their microwave network to the Project staff to minimize potential interference with their signal paths.

There is one registered FCC land mobile tower located within the Champaign County Project area. Four additional FCC land mobile towers are located outside the Project area near Royal, and a telecommunication/microwave tower is located just north of the Project boundary along Highway 49 (Figure 5-3).

### 5.5.2 MITIGATION MEASURES

California Ridge will work with any affected landowners within the Project area to remedy any recognized degradation due to the Project, if any, in their television, radio, or broadband wireless internet service that may result from the Project.

California Ridge has submitted the Project location to the National Telecommunications and Information Administration (NTIA) and they have confirmed that no federal agencies identified any concerns regarding blockage of their radio frequency transmissions. All turbine locations have also been submitted to the FAA to verify that their locations will have determinations of no effect.

## 5.6 PUBLIC HEALTH AND SAFETY

### 5.6.1 AIR TRAFFIC

The closest public airport is Schmidt Airport, located approximately 3.2 miles west of the Project area. This airport has one runway approximately 2,190 ft in length. Additionally, Rantoul National Aviation Center is 8 miles away, and the University of Illinois-Willard Airport, which is south of Champaign-Urbana, is more than 15 miles southwest of the Project boundary.

### Mitigation Measures

California Ridge will light the turbines and meteorological towers to comply with the newest FAA advisory circular (AC 70/7460-1K) recommendations for wind turbines approved February 1, 2007. This requires that simultaneously flashing red or white lights be used on turbines at the ends of strings as well as lights approximately every half a mile within strings. The placement of the lights will depend upon the final approval from the FAA.

## 5.6.2 FIRE PREVENTION AND MITIGATION

The Project will adhere to applicable electrical codes and standards. Fire protection in the Project area is primarily provided by volunteer fire protection districts, including the Fithian, Ogden/Royal, Oakwood, and Bluegrass districts. Training to handle emergency situations if they arise at the site will be provided to the construction crews by experienced contractors. Local fire and ambulance crews will be called to the site to provide emergency medical services. Turbine access roads will increase emergency access to the Project area. All wind turbines have lightning protection and grounding.

California Ridge has met with each of the four volunteer fire protection districts that serve the Project Area to discuss health and safety matters. During construction of the Project, contractors are required to develop their own Emergency Response Plans and training programs for their employees. In addition to the EHS Manual, California Ridge will develop a separate Project Emergency Response Plan which will specify how to respond to a host of emergency situations. Employees will be trained to respond to emergency situations and this training will be offered to the local fire districts.

During operation, the Project will not present a risk of fire. The minimum amount of vegetation will be removed from the vicinity of electrical gear and connections to allow for the safe operation of all electrical equipment associated with the site, while at the same time minimizing the loss of vegetation. The turbines, towers, and other equipment are for the most part metal, and are not easily combustible. All wind turbines will be properly protected from lightning and will be electrically grounded.

## 5.7 HAZARDOUS MATERIALS

### 5.7.1 DESCRIPTION OF RESOURCES

California Ridge is not aware of any significant hazardous waste sites within the Project area. The land is primarily rural and used for agriculture. Potential hazardous materials within the Project area will be associated with agricultural activities, and include petroleum products (fuels and lubricants), pesticides, and herbicides. Older farmsteads may also have lead-based paint, asbestos shingles, and Polychlorinated Biphenyls (PCBs) in transformers. Trash and farm equipment dumps are also potential hazards in rural settings.

There will be three types of fluids used in the operation of the wind turbines that are petroleum products. These fluids are necessary for the operation of each turbine and include:

- Gear box oil – synthetic or mineral depending on application (approximately 300 liters)
- Hydraulic fluid
- Gear grease

These fluids will be managed and, if disposal is necessary, disposed of in compliance with the requirements of applicable laws and regulations, including Illinois Administrative Code Title 35, Parts 700-739.

### 5.7.2 IMPACTS

California Ridge will conduct a Phase I Environmental Site Assessment prior to construction to locate and avoid hazardous waste sites.

All fluids will be contained within the wind turbine structure. There should be no leakage and no need to dispose of fluids (except in the rare case of contamination) over the life of the turbine.

### 5.7.3 MITIGATION MEASURES

Because there are no proposed impacts to hazardous waste sites, no mitigation measures are necessary. If any wastes, fluids, or pollutants are generated during any phase of Project operation, they will be handled, processed, treated, stored, and disposed of in accordance with Illinois Administrative Code Title 35, Parts 700-739.

## 5.8 SURFACE WATER, FLOODPLAIN, AND WETLAND RESOURCES

### 5.8.1 SURFACE WATER AND FLOODPLAIN RESOURCES

Surface water and floodplain resources for the Project area were identified by reviewing U.S. Geological Survey topographic maps (1996), Illinois Regulation of Public Waters (Appendix A of 17 IL Adm. Code Ch I Sec. 3704) (2005), Illinois Critical Resource Waters Map (2000), and Flood Insurance Rate Maps produced by the Federal Emergency Management Agency (FEMA 1985). The major surface waters located in the vicinity of the Project area are Spoon River, Buck Creek, Knights Branch, Collison Branch, and Feather Creek. These are all tributaries to the Middle Fork Vermilion River which is east of the Project area. A number of unnamed intermittent streams flow to the aforementioned major surface waters.

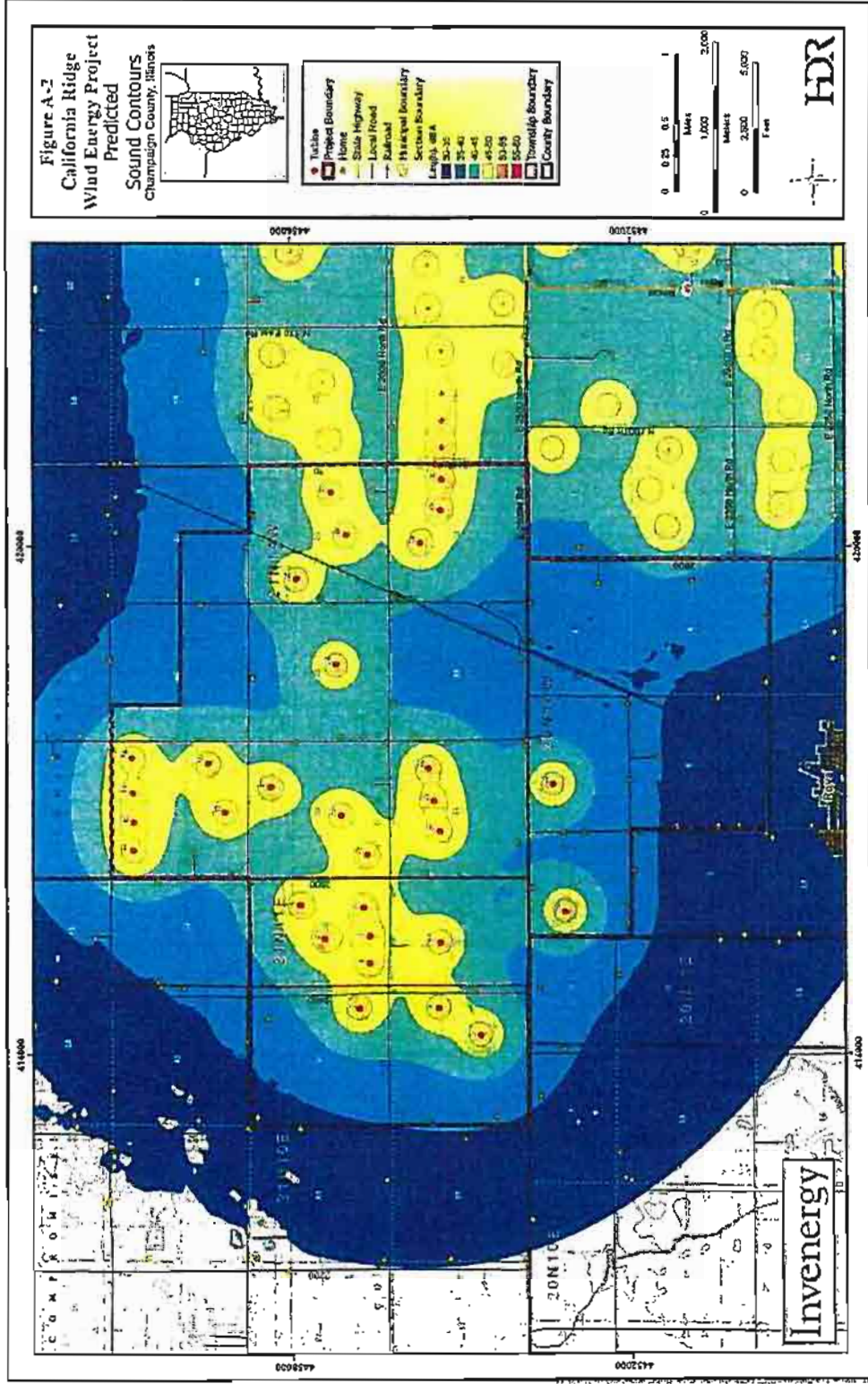
The IDNR Regulation of Public Waters (Sec. 3704) Appendix A identified no public waters within the Project area or within Champaign County.

A review of FEMA floodplain maps indicates that there is a 100-year floodway within the Project area. The 100-year floodway is located in Section 36 of Compromise Township near the Spoon River, near the edge of the Project boundary. No Project facilities are planned near this floodplain and it will be avoided.

### 5.8.2 IMPACTS

Construction of the wind turbines, access roads, electrical collection system, and the Project substation will disturb land within the Project area. The wind turbines and ancillary facilities will be built on uplands, which will avoid the surface water features and designated floodplains typically located in the lower positions on the landscape. Access roads will be built to avoid or minimize impacts on waters and wetlands. In particular, all surface waters and tributaries to the Middle Fork of the Vermilion River will be avoided. Underground cabling will be directionally bored under surface water resources and wetlands to minimize potential erosion or sedimentation effects to the river.

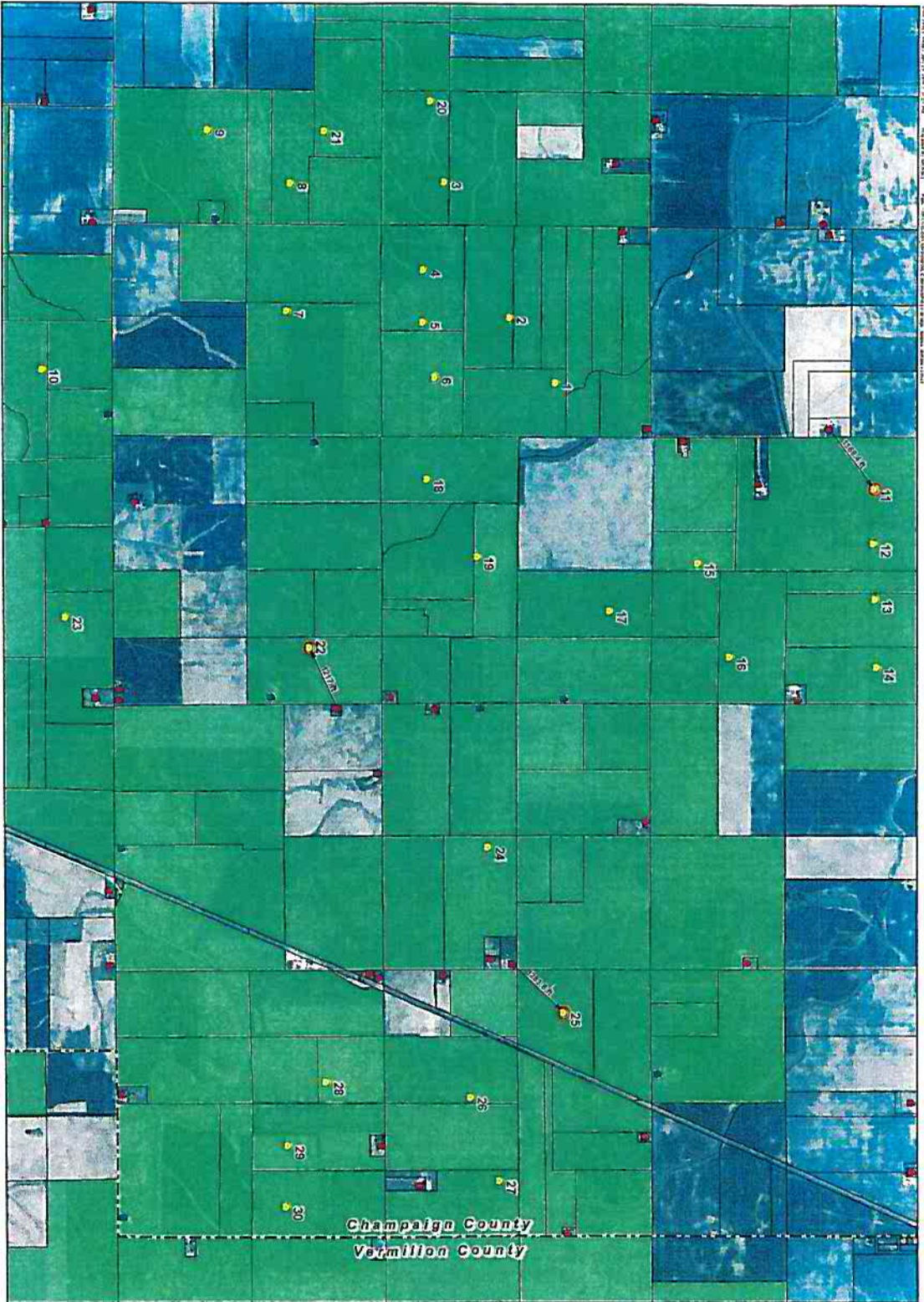
In a letter dated December 4<sup>th</sup>, the IDNR stated that erosion from the Project has the potential to affect the Middle Fork and its tributaries through siltation and sedimentation, while disruption of field tile system may temporarily or permanently adversely modify the prevailing thermal regime in feeder stream habitats essential to Middle Fork fish, reptiles, amphibians, and mussels, including many state-listed endangered or threatened species, several of which are unique to the Vermilion River system in Illinois.





Case 696-S-11 California Ridge Wind Farm

ATTACHMENT F – Champaign County Non-Participating Dwelling  
Separation Summary Map Received July 29, 2011



# Champaign County Non-Participating Dwelling Separation Summary

California Ridge Wind Energy Project, Champaign and Vermillion Counties, Illinois

July 29, 2011  
Rev. 01



### Legend

- Proposed Turbine Location
- Principal Dwelling Structure
- Not Participating
- Participating
- 125' Turbine Buffer
- County Boundary
- Landowner Status
  - Participating
  - No Information

Separation distances between wind farm structures and non-participating dwellings or principal buildings are greater than minimum setbacks.

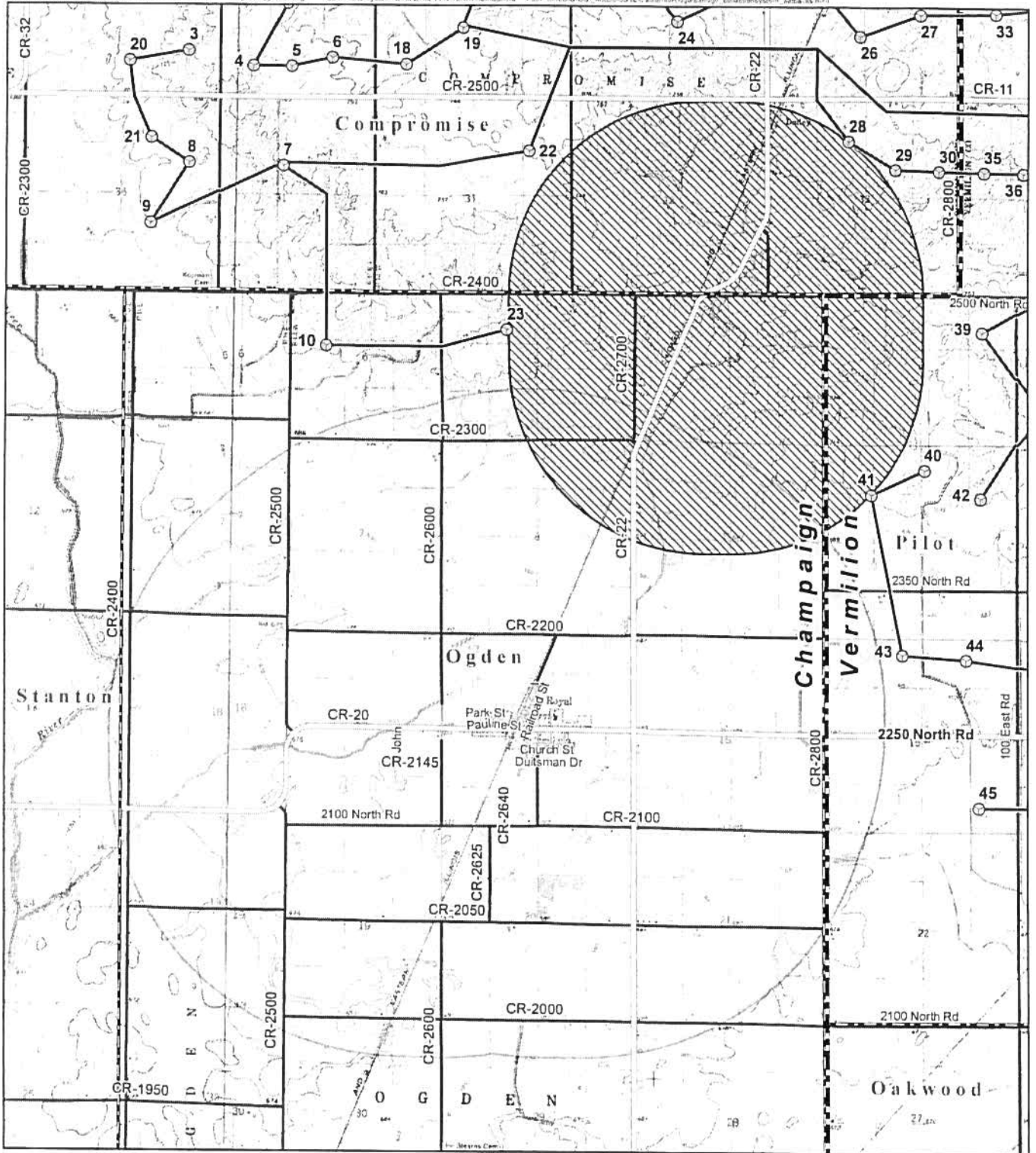
Dimensions indicated are from non-participating buildings or principal buildings to turbine buffer. Turbine buffer is 125' from current turbine centerpoint in order to account for field adjustments and micro-siting issues.

## Invenery

One Eden, Wacker Drive, Suite 1100  
Chicago, IL 60601  
312.721.1400

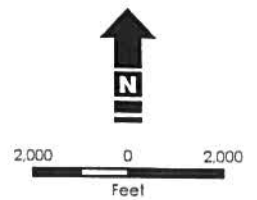
Case 696-S-11 California Ridge Wind Farm

ATTACHMENT G – Map of Conservation Recreation Zoning District  
and Incorporated Municipality Setback Compliance Received  
September 29, 2011



**Legend**

- ⊙ Proposed Turbine Location
- Proposed Collection Line
- ▨ Conservation Setback (1 Mile)
- Village of Royal Setback (1.5 Miles)
- ▭ Township Boundary
- ▤ County Boundary



**Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance**

California Ridge Wind Energy Project, Champaign and Vermilion Counties, Illinois

Rev. 00

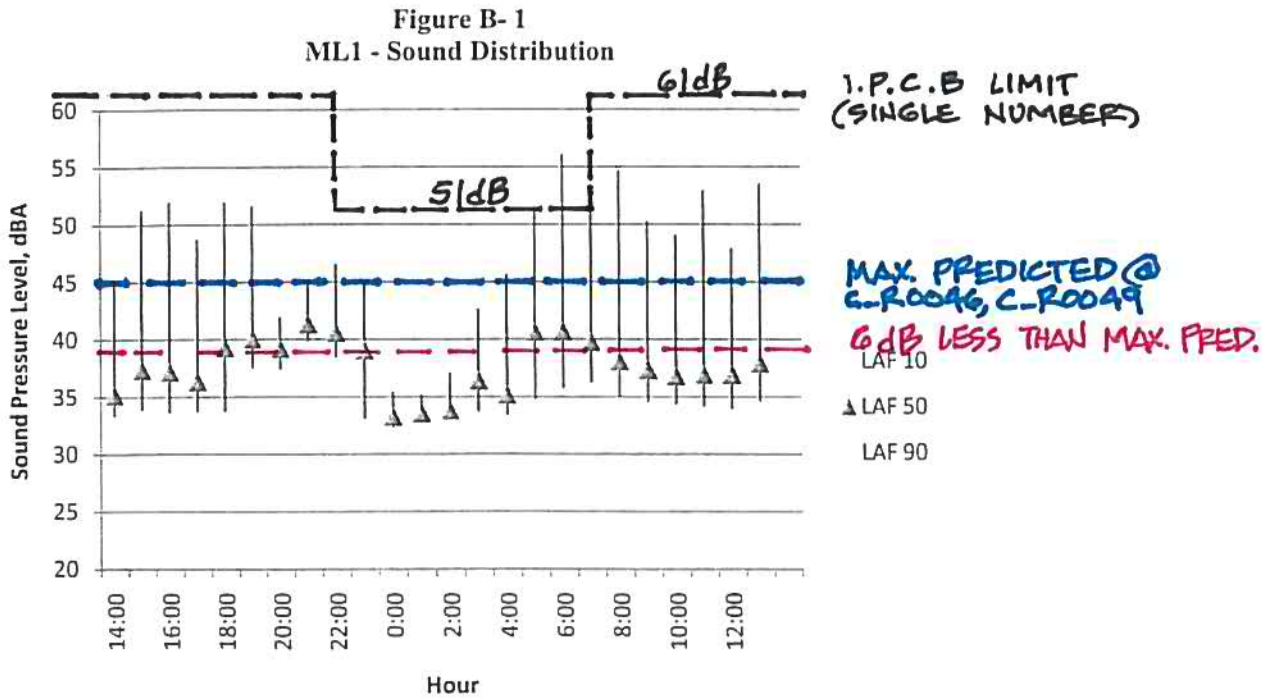
September 21, 2011

**Invenergy**

One South Wacker Drive Suite 1900  
Chicago, Illinois 60606  
(312) 224-1400

Case 696-S-11 California Ridge Wind Farm

ATTACHMENT H – Staff Handout Illustrating the Comparison of the Maximum IPCS Noise Limit (Single Number) With the Maximum Predicted Noise at Two Receptors with the Ambient Sound



Median sound levels at ML1 ranged from 33 to 41 dBA dependant on the hour. There was a wide range of sound levels at ML1 during daytime and nighttime hours. The wide variation in sound level during an hour indicates the presence of short duration or periodic loud events.. On average sound levels varied 15 dB between the L<sub>10</sub> and L<sub>90</sub> during daytime hours. This indicates the presence of intermittent loud events such as infrequent truck passbys.

### Monitoring Location 2 (ML2)

Monitoring location 2 (ML2) was located in Ogden Township near 2700 E Road and 2200 North Road. Sound surveys at ML2 were performed between May 4, 2009 and May 5, 2009. The sound level meter was placed across the street from residences and work sheds. The primary sound sources at this location were vehicular traffic and agriculture related activities.

Table B-3 summarizes the hourly measurements performed at ML2.

Case 696-S-11 California Ridge Wind Farm

ATTACHMENT I – Table of 32 Closest Dwelling and 32 Receptors  
With Loudest Noise Levels

**Table of 32 Closest Dwellings and 32 Receptors With Loudest Noise Levels**

DRAFT October 13, 2011

Dwellings Closest to Turbines				Receptors With Highest Noise Levels			
Dwelling location and Number (X) closeness ranking	Turbine Number	Separation (feet)	Other Turbine(s) Number & Separation	Receptor (overall loudness ranking)	Overall dBA (rounded)	31.5 hz (69 hz)	1,000hz (41hz)
(1) Sec. 31 R14W #2	22	1,071	NA	(1) C_R0046	44.9 (45)	67.6	39.9
(2) Sec. 32 R14W #2	22	1,217	NA	(2) C_R0045	44.6 (45)	67.4	39.5
(3) Sec. 29 R14W #3	25	1,283	# 24, 2,309 ft.	(3) C_R0506	44.0	66.7	38.8
(4) Sec. 19 R11E #2	11	1,368	NA	(4) C_R0013	43.6 (44)	66.5	38.6
(5) Sec. 33 R14W #3	29	1,455	#28, 1,540 ft. #30, 2,155 ft.	(5) C_R0018	43.6 (44)	66	38.6
(6) Sec. 19 R14W #3	16	1,488	#14, 1,823 ft.	(6) C_R0027	43.6 (44)	66.1	38.4
(7) Sec. 6 R11W #1	10	1,488	NA	(7) C_R0044	43.2 (43)	66.3	37.8
(8) Sec. 36 R11E #1	8	1,550	#9, 1,700 ft. #7, 2,300 ft.	(8) C_R0026	43.2 (43)	65.9	37.9
(9) Sec. 28 R14W #4	27	1,540	#26, 1,950 ft.	(9) C_R0035	43.1 (43)	66	37.9
(10) Sec. 6 R11E #1	10	1,550	NA	(10) C_R0002	43.1 (43)	65.3	38.3
(11) Sec. 28 R14W #2	27	1,642	NA	(11) C_R0017	42.4 (42)	65.1	37.3
(12) Sec. 5 R14W #1	23	1,642	NA	(12) C_R0016	42.3 (42)	65.3	37.2
(13) Sec. 29 R14W #4	25	1,693	#24, 2,155 ft.	(13) C_R0034	42.2 (42)	65.6	36.8
(14) Sec. 31 R14W #4	23	1,785	NA	(14) C_R0014	41.6 (42)	64.8	36.3
(15) Sec. 30 R14W #2;	22	1,800	NA	(15) C_R1322	41.6 (42)	64.8	34.9
Sec. 6 R14W #2	23	1,800	NA	(16) C_R0022	41.4 (41)	64.9	35.9
(16) Sec. 6 R11E #2	23	1,850	NA	(17) C_R0033	41.4 (41)	65.1	35.8
(17) Sec. 31 R14W #5;	23	1,900	NA	(18) C_R0031	41.0	65	35.2
Sec. 30 R14W #1	17	1,900	NA	(19) C_R1038	41.0	63.5	35.9
(18) Sec. 19 R14W #1;	15	1,950	NA	(20) C_R0015	40.9 (41)	64.1	35.5
Sec. 30 R11E #2	1	1,950	NA	(21) C_R0032	40.8 (41)	64.9	34.9
(19) Sec. 21 R14W #1;	1	2,155	NA	(22) C_R0023	40.6 (41)	64.5	34.8
Sec. 6 R14W #3;	23	2,155	NA	(23) C_R0024	40.6 (41)	64.3	34.9
Sec. 6 R11E #2	3	2,155	NA	(24) C_R0028	40.4 (40)	64.2	34.7
(20) Sec. 31 R14W #1	18	2,300	#7, 2,600 ft.	(25) C_R1040	40.4 (40)	64.1	34.7
(21) Sec. 33 R14W #1;	28	2,360	NA	(26) C_R0029	40.0	64	38.6
Sec. 33 R14W #1	28	2,360	NA	(27) C_R0030	40.0	64.3	33.9
(22) Sec. 28 R14W #3	25	2,400	#26, 2,400 ft.	(28) C_R0192	39.9 (40)	63.9	34
(23) Sec. 19 R14W #2	15	2,412	NA	(29) C_R0142	39.9 (40)	63.4	34.4
(24) Sec. 32 R14W #1	24	2,566	#22, 2,600 ft.	(30) C_R0037	39.8 (40)	64.1	33.7
(25) Sec. 29 R14W #5	22	2,668	#24 2,925 ft.	(31) C_R0038	39.8 (40)	64.3	33.7
(26) Sec. 31 R14W #3	23	2,668	#10 3,100 ft.	(32) C_R0043	39.7 (40)	64.3	33.2



Case 696-S-11 California Ridge Wind Farm

ATTACHMENT K – REVISED Draft Reclamation Agreement  
Received October 20, 2011, including:

- (A) Revised Decommissioning Costs Received October 6, 2011
- (B) Appendix B California Ridge Wind Energy Project  
Decommissioning Report



**RECLAMATION AGREEMENT**  
Case 696-S-11

KNOW ALL MEN BY THESE PRESENTS, that California Ridge Wind Energy LLC, (“Principal”) and the Landowners are firmly bound unto Champaign County, State of Illinois (“Champaign County”), as set forth in this Reclamation Agreement to satisfy requirements of the Zoning Ordinance. Principal and Champaign County are sometimes referred to in this Reclamation Agreement as a Party or collectively as the Parties. Principal is firmly bound to Champaign County in the sum of the Financial Assurance (as defined below), well and truly provided unto Champaign County and said Principal binds itself, their successors and assigns, jointly and severally by these presents:

THE CONDITION OF THE FOREGOING OBLIGATION is such that:

WHEREAS, Champaign County has approved, or will approve, as a Special Use to the Champaign County Zoning Ordinance (“Zoning Ordinance”), the Principal's proposal to construct and install the Project. As part of the requirements for the approval of said Zoning Case, the Principal has entered into this Reclamation Agreement with Champaign County to provide for the final removal of the below ground and above-ground portions of the said Project and the structure supporting the said Project and any associated site grading and soil erosion control as may be necessary in accordance with the applicable laws and with the applicable ordinances and codes of Champaign County as related to Project decommissioning requirements.

NOW, THEREFORE, to fulfill the relevant requirements of the approval of Case 696-S-11, the conditions of this Reclamation Agreement are as follows:

- (1) This “Reclamation Agreement” shall consist of the following documents:
  - (a) This writing;
  - (b) The Decommissioning Cost Estimate. (Attachment A)
  - (c) The Decommissioning Report, to the limited extent it defines Reclamation Work. (Attachment B).
  - (d) The list of Landowners (Attachment C).
  - (e) Memorandum of Agreement (Attachment D).

These form the entire Reclamation Agreement between the Principal and Champaign County, and, supersede all prior representations between the parties, written or oral. All of these documents are as fully a part of the Reclamation Agreement as if attached to this writing or repeated within it. Any inconsistencies shall be resolved by giving priority to the documents in the order listed above. Without limitation, this shall mean that any Decommissioning Expenses and Salvage Value set forth in the Decommissioning Cost Estimate, shall prevail over conflicting values set forth in the Decommissioning Report.

(2) Definitions, as used in this Reclamation Agreement:

- (a) “Abandoned”: The Project is “Abandoned” if:

(i) The **Project** as a whole ceases producing electricity for a period of 6 consecutive months after it first starts producing electricity and the **Principal** is not diligently attempting to continue producing electricity, or any such cessation continues for a period of 12 consecutive months, regardless of the efforts of the **Principal**.

(ii) Any wind turbine or component of the **Project** thereof ceases to be functional for a period of more than 6 consecutive months after it first starts producing electricity and the **Principal** is not diligently repairing such wind turbine or component, or any such cessation continues for a period of 12 consecutive months, regardless of the efforts of the **Principal**.

(iii) There is a delay in the construction of any component part of the **Project** of more than 6 consecutive months after construction on that component begins and the **Principal** is not diligently working to continue construction activities, or any such delay continues for a period of 12 consecutive months, regardless of the efforts of the **Principal**

(iv) Any part of the **Project** appears in a state of disrepair or imminent collapse, and/or creates an imminent threat to the health or safety of the public or any person.

(v) The **Principal** determines any wind turbine or other component of the **Project** to be functionally obsolete, for tax purposes.

(vi) The **Principal's** existence as a corporate entity is dissolved.

(vii) Design compliance certification from Underwriter Laboratories or an equivalent third party is not secured within 6 consecutive months of completion of construction and the **Principal** is not diligently working to obtain such certification, or any such delay continues for a period of 12 consecutive months, regardless of the efforts of the **Principal**.

(b) "**Associated Costs**": All administrative and ancillary costs associated with drawing upon the **Financial Assurance** and performing the **Reclamation Work**, or with monitoring the **Principal's** performance and completion of the **Reclamation Work** or with enforcing this **Reclamation Agreement**, including, but not limited to:

(i) Attorneys fees, legal fees and other liabilities incurred by **Champaign County** relating to the **Project**, to be paid by

the **Principal** under Section (13) or Section (16)(e).

- (ii) Construction management fees and other professional service fees, incurred both before and after the **Reclamation Work**.
  - (iii) The costs to **Champaign County** of preparing requests for proposals, bid documents, or other bid documents needed to comply with state law, and/or **Champaign County's** purchasing policies, as required to prepare the **Reclamation Work**.
  - (iv) If the financial institution providing the **Financial Assurance** does not have an office within 200 miles of Urbana, Illinois, the cost to **Champaign County** for any travel to and from the institution required to implement this agreement and make use of the **Financial Assurance**, except where travel is not reasonably required for such purposes of implementation.
  - (v) Any costs related to the removal of any covenants that were placed on the title to the land as a requirement for approval in said **Zoning Case**.
  - (vi) Any increase in the cost of performing **Reclamation Work** caused by the **Principal's** exercise of its right to salvage parts of the **Project**, including, but not limited to, delays due to such exercise.
  - (vii) Any costs incurred by **Champaign County** in maintaining the **Financial Assurance** due to breach by the **Principal** of its agreement with the issuer.
- (c) **"Base Decommissioning Expense"**: **Decommissioning Expense** less **Salvage Value**, calculated using the values set forth in the **Decommissioning Cost Estimate**.
- (d) **"Champaign County"**: Champaign County, State of Illinois, and its agents, employees, consultants and contractors.
- (e) **"Decommissioning Expenses"**: shall mean the costs of performing the **Reclamation Work**. Any costs incurred through a contract awarded using a competitive bidding or competitive request for proposal process required by State or Federal law, or applicable local ordinance, shall be deemed reasonable for this purpose.
- (f) **"Decommissioning Cost Estimate"**: as revised, is appended hereto as Attachment

A.

- (g) **“Decommissioning Report”**: Appendix B of the June 2011 California Ridge Wind Energy Project Decommissioning Report submitted with **Special Use Permit Application** in the **Zoning Case**, and appended hereto as Attachment B.
- (h) **“Financial Assurance”**: an irrevocable letter of credit or successor letters of credit or an escrow account, or combination thereof, drawn upon or deposited in, as the case may be, a federally insured financial institution, in the form set forth in Section (4).
- (i) **“Landowners”**: Those persons listed in Attachment C.
- (j) **“Principal”**: California Ridge Wind Energy LLC,
- (k) **“Project”**: a system as described and permitted in the **Zoning Case** in the townships of Ogden and Compromise, Champaign County, Illinois, as described in the **Special Use Permit**.
- (l) **“Reclamation Work”**: removal and reclamation obligations described in subparagraph 6.1.1.A.4. of the **Zoning Ordinance**, including: Removal of above-ground portions of any structure on the **Project’s** site, site grading, and interim soil erosion control; below-ground restoration, including final grading and surface treatment; repairs to any public Street used for the purpose of reclamation of the same; removal of access driveways for **Champaign**; and bringing the land covered by the **Special Use Permit** into compliance with the **Zoning Ordinance**, without reliance upon the **Special Use Permit**. The **Reclamation Work** includes, without limitation, the work described in the **Decommissioning Report**. Subject to the approval of the Champaign County Board, the **Zoning Administrator** shall have the sole discretion to determine what work is necessary for this purpose.
- (m) **“Salvage Value”** shall mean recoverable costs from the **Project**, including steel, concrete, or other basic metals, but shall not include the value of any reclaimed roadway materials.
- (n) **“Special Use Permit”**: the permit granted in the **Zoning Case**.
- (o) **“Zoning Administrator”**: Champaign County **Zoning Administrator**.
- (q) **“Zoning Case”**: Champaign County **Zoning Case 696-S-11**.
- (r) **“Zoning Ordinance”**: The **Champaign County Zoning Ordinance**, as it may be amended from time to time.

(3) At the time of application for any zoning use permit required by the **Special Use Permit**, the **Principal** shall provide **Champaign County Financial Assurance** in accordance

with the provisions of Section 4 of this agreement, to be maintained and remain in effect for a period of twenty-five (25) years from the date the first turbine begins generating electricity.

(4) The **Financial Assurance** shall be subject to the following:

- (a) The amount of the irrevocable letter of credit shall be 210% of the **Decommissioning Cost Estimate**.
- (b) The **Principal** shall gradually pay down the value of the irrevocable letter of credit by placing cash deposits in an escrow account over the first 13 years of the **Project's** operation as follows:
  - (i) The **Principal** and the **Champaign County** Board shall agree on a mutually acceptable financial institution at which an escrow account shall be established.
  - (ii) **Champaign County** shall be the beneficiary of the escrow account for the purpose of the reclamation of the **Project** in the event that the **Principal** is incapable of decommissioning the **Project**.
  - (iii) The **Principal** shall grant perfected security in the escrow account by use of a control agreement establishing the **County** as an owner of record, pursuant to the Secured Transactions Article of the Uniform Commercial Code, 810 ILCS 9/101 et seq.
  - (iv) The **Principal** shall make annual deposits to the escrow account over a 12 year period and shall simultaneously provide a replacement irrevocable letter of credit that is reduced accordingly.

(c) On January 1 of every third year for the first twelve years after the **Special Use Permit** is granted and every second year for the remainder of this Agreement, the **Financial Assurance** shall be adjusted as follows:

- (i) The **Principal**, using an independent, Professional Engineer registered in the State of Illinois, shall adjust the amount of the **Financial Assurance** and **Base Decommissioning Expenses** held as part of this Agreement to ensure the **Decommissioning Cost Estimate** has been updated and reflects current, accurate information. The **Principal** shall, upon receipt, provide a copy of the adjusted Professional Engineer's report to the Zoning Administrator.
- (ii) Provided, however, that at no time will the amount of the total **Financial Assurance** be less than \$25,000 per wind

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turbine that is part of the **Project**, regardless of the actual estimated cost of the Reclamation Work amounts reflected in any updated Professional Engineer's report. Said minimum **Financial Assurance** shall be increased annually by known and documented rates of inflation since the **Project** was approved.

(vi)(d) At all times the total combined value of the irrevocable letter of credit and the escrow account shall be increased annually as necessary to reflect actual rates of inflation over the life span of the **Project** and the amount shall be equal to or exceed the following:

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- (i) the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the **Project** was approved; plus
- (ii) an amount for any future years left in the anticipated life span of the **Project** at an assumed minimum rate of inflation of 3% per year.

(vii)(e) Any interest accrued on the escrow account that is over and above the total value required hereby shall go to the **Principal**.

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(vii)(f) In order to provide funding for decommissioning at the time of decommissioning, pursuant to paragraph 6(a), the **Principal** may exchange a new irrevocable letter of credit in an amount equal to the amount in the escrow account, subject to agreement by in-exchange-for the Champaign County Board agreeing to a release of the full amount of the escrow account, which agreement shall not be unreasonably withheld.

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(5) If the **Principal** desires to remove equipment or property credited to the **Salvage Value** without the concurrent replacement of the property with property of equal or greater **Salvage Value**, or if the **Principal** installs equipment or property increasing the **Decommissioning Expenses** after the **Project** begins to produce electricity, at any point, the **Principal** shall first obtain the consent of the **Zoning Administrator**, which consent shall not be unreasonably withheld. If the **Principal's** lienholders remove equipment or property credited to the **Salvage Value**, the **Principal** shall promptly notify **Champaign County**. In either event, the **Financial Assurance** shall be adjusted to reflect any change in total **Salvage Value** and/or total **Decommissioning Expenses** resulting from any such removal or installation.

(6) **Principal's** winding down of the **Project**.

(a) The **Principal** may voluntarily, at such time as it deems it necessary and appropriate, and only with prior notice to the **Zoning Administrator**, perform and complete or cause to be performed and completed, the **Reclamation Work**. All **Reclamation Work** shall be completed within a ninety (90) day period, or the

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**Principal** shall demonstrate **Reclamation Work** is diligently being processed and moving toward completion, to the satisfaction of the **Zoning Administrator**, following the **Principal's** notification to the **Zoning Administrator**. If the work is so completed, and verified on site by the **Zoning Administrator** or his designee, the **Zoning Administrator** shall draw upon the **Financial Assurance** to pay any accrued **Associated Costs**, and then release the remainder of the **Financial Assurance** to the issuer of the **Financial Assurance**, the **Principal's** obligation to provide **Financial Assurance** under this Agreement shall cease and the **Special Use Permit** shall then expire. The **Principal's** exercise of this right shall not, in any way, limit the authority of **Champaign County** under Section (9) or Paragraph 6.1.1.8 of the **Zoning Ordinance**, and may be denied to the extent it conflicts with this authority.

(b) The **Principal** shall perform the **Reclamation Work** prior to:

- (i) **Abandoning the Project;**
- (ii) Ceasing production of electricity from the **Project**, after it has begun, other than in the ordinary course of business;
- (iii) Transferring the **Project** other than in compliance with this **Reclamation Agreement**.

(c) The **Principal** shall be responsible for paying the costs of performing the **Reclamation Work** and for paying any **Associated Costs**. The **Principal's** obligation to perform this **Reclamation Work** and to pay **Associated Costs** shall be independent of its obligation to provide **Financial Assurance**.

(d) The liability of the **Principal** for failure to perform the **Reclamation Agreement** or any other breach of this **Reclamation Agreement** shall not be capped by the amount of the **Financial Assurance**.

(7) **Abandonment Process.** Once the **Zoning Administrator** has made a finding the **Project** has been **Abandoned**, the **Zoning Administrator** shall issue notice to the **Principal** that **Champaign County** will draw on the **Financial Assurance** within thirty (30) days unless the **Principal** appeals the **Zoning Administrator's** finding, pursuant to Paragraph 9.1.8 of the **Zoning Ordinance** or enters a written agreement with **Champaign County** to perform the **Reclamation Work** and remove the **Project** within ninety (90) days. No such notice is required if the **Zoning Administrator** determines the **Project** poses an imminent threat to the health and safety of the public or any person.

(8) The **Principal** shall pay any accrued **Associated Costs** upon sixty (60) days written demand from the **Zoning Administrator**.

(9) Drawing Upon the **Financial Assurance**:

(a) The **Zoning Administrator** may draw upon the **Financial Assurance** to have the



**Reclamation Work** completed when any of the following occur:

(i) The **Project** is deemed **Abandoned**, under the process set forth in Section (7), and the **Principal** has not responded to the notice from the **Zoning Administrator** within thirty (30) days of its issuance; or, having responded, has not appealed the **Zoning Administrator's** finding; or entered a written agreement to perform the **Reclamation Work** and remove the **Project**.

(ii) The **Principal** does not enter into, or breaches any term of, a written agreement with **Champaign County** to perform the **Reclamation Work** and/or remove the **Project** and or the **Project's** supporting structures and regrade and provide soil and erosion control as provided in the approval of the **Zoning Case**.

(iii) Any material breach or performance failure of any provision of this **Reclamation Agreement**; including, but not limited to, the failure to maintain **Financial Assurance**; the failure to replace expiring **Financial Assurance** within the deadlines set forth herein; or the removal or replacement of equipment or property from the **Project** in violation of Section (5).

(iv) The **Principal** has filed a bankruptcy petition, or compromised **Champaign County's** interest in the **Financial Assurance** in any way not specifically allowed by this **Reclamation Agreement**.

(v) A court of law, an arbitrator, mediator, or any state or Federal agency charged with enforcing State or Federal law has made a finding that either said **Project** or any of the facilities or structures supporting or constituting said **Project** and/or any related site grading and soil erosion controls or lack of same, constitutes a public nuisance or otherwise violates State or Federal law, or any State or Federal agency charged with enforcing State or Federal law has made a final determination imposing an administrative sanction on the **Project** or denying the **Project** a permit necessary for its lawful operation.

(vi) **Champaign County** discovers any material misstatement of fact, or misleading omission of fact, made by the **Principal** or its employees or agents in the course of the **Zoning Case**, or negotiations over this **Reclamation Agreement**.

(viii) The **Zoning Administrator** makes a determination the **Project**, or any part thereof, poses an imminent threat to public safety or any person, pursuant to Section (9)(d), regardless of whether the **Project** has been determined **Abandoned** using the process set forth in Section (7).

(ix) Any accrued unpaid **Associated Costs** exceed \$25,000.00

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- (b) **Champaign County** may draw the **Decommissioning Expenses** and all accrued **Associated Costs** from the **Financial Assurance**. No dispute as to the necessity or reasonableness of **Associated Costs** or costs of performing the **Reclamation Work** will impair the ability of **Champaign County** to draw on the **Financial Assurance**.
- (c) If **Champaign County** draws on the **Financial Assurance** to enter a contract to have any portion of the **Project** dismantled, demolished, or deconstructed, **Champaign County** will notify **Principal** and allow the **Principal** to reclaim the **Project** and related equipment and remove the dismantled, demolished, or deconstructed equipment at **Principal's** sole cost, within sixty (60) days, or such later period agreed by the **Zoning Administrator**, subject to Section (5).
- (d) **Public Safety Risk**. The **Zoning Administrator** may draw upon the **Financial Assurance** immediately, to perform the any work reasonably necessary to respond to an imminent threat posed by the **Project** to the health or safety of the public or any person. The **Zoning Administrator** shall not be required to first give any notice of **Abandonment** under Section (7), or to first provide a right to remove salvage property under Section (9)(c). The **Zoning Administrator**, and other agents or contractors of **Champaign County**, shall have authority from the **Principal** and the **Landowner** to enter upon the **Project** to abate such risk. The **Principal** or **Landowner** may appeal the **Zoning Administrator's** determination of such imminent threat, under the process set forth at Paragraph 9.1.8, of the **Zoning Ordinance**, but its sole remedy shall be an adjustment to **Financial Assurance** for the remainder of the **Project**, and reinstatement of the **Special Use Permit**.
- (e) Any balance of the **Financial Assurance** that remains after the **Reclamation Work** shall be used to pay **Associated Costs** and any other liability the **Principal** owes **Champaign County** as a result of the **Project**. After these sums are paid, any remaining **Financial Assurance** shall be returned to the issuer of the **Financial Assurance**, the **Principal's** obligation to provide **Financial Assurance** under this **Reclamation Agreement** shall cease, and the **Special Use Permit** shall expire. The **Principal's** remaining obligations under this **Reclamation Agreement** shall continue.
- (f) Should **Principal** **Abandon** the **Project** and fail to exercise its right to remove components of the **Project** under this **Reclamation Agreement**, any components remaining after any cure periods due and owing to a lender pursuant to the construction financing of the **Project** have expired, may, at **Champaign County's** sole discretion, be deemed forfeited to **Champaign County** and may be sold by **Champaign County** to recover any accrued costs of performing the **Reclamation Work** or **Associated Costs**, or any other liability owed **Champaign County** as a result of **Reclamation Work** on the **Project** that are not fully reimbursed by the **Financial Assurance**. The entire **Salvage Value** of the **Project** shall be applied to these debts, regardless of whether the amount exceeds the proposed **Salvage**

**Value** used to determine the required **Financial Assurance**. Any surplus **Salvage Value** shall be returned to the **Principal** or its successors. This section shall not be construed to require **Champaign County** to take ownership of any component of the **Project**, and its failure to do shall not reduce any liability **Principal** owes **Champaign County** relating to the **Project**, under this **Reclamation Agreement**, or otherwise. The **Principal** and **Champaign County** agree to cooperate to enter into any documentation reasonably necessary to effect such the transactions set forth in this section.

- (g) In accordance with the provisions of the Illinois Mechanic's Lien Act, 770 ILCS 60/1 and 60/7, **Principal** agrees that, upon the occurrence of the circumstances set forth in the foregoing sub-paragraph, any contractor retained by **Champaign County** to perform the **Reclamation Work** shall have a lien upon the **Project** to the full extent of all costs of performing the **Reclamation Work** and **Associated Costs**, and that such lien shall be superior to any claim or lien of any other creditor, incumbrancer or purchaser.

(10) The **Principal** shall be solely liable to the issuer of the **Financial Assurance** for all costs and fees associated with issuing and maintaining the **Financial Assurance**. **Principal** shall provide **Champaign County** with current copies of its agreement with the issuer of the **Financial Assurance** (e.g., escrow agreement, letter of credit). This agreement shall provide:

- (a) **Champaign County** is authorized to draw upon the **Financial Assurance** as provided in this **Reclamation Agreement**.
- (b) **Champaign County** will be a third party beneficiary of any such agreement between **Principal** and the issuer.
- (c) **Champaign County** will be notified by the issuer directly of any lapse or default in the agreement between the **Principal** and the issuer, and provided an opportunity to cure any default by the **Principal** so as to preserve its **Financial Assurance**.
- (d) Such agreement shall be renewed on a regular basis in accordance with this **Reclamation Agreement** or survive the expiration of the **Special Use Permit** and the expiration of this **Reclamation Agreement**.

(11) **Transfer of Interest**. This **Reclamation Agreement** shall inure to the benefit of and shall be binding upon the parties hereto, their respective successors, assignees, and legal representatives. This **Reclamation Agreement** may not be assigned without the written consent of the other parties hereto, which consent shall not be unreasonably withheld. The **Principal** shall ensure that any sale, assignment in fact or at law, or other such transfer of the **Principal's** interest in the **Project** be subject to the following terms:

- (a) Upon any proposed change in ownership of the subject **Project**, but at least ninety (90) days prior to the legal transfer of title, the new owner shall:

(i) submit to the **Zoning Administrator** a new **Financial Assurance** of the same value;

(ii) sign a new **Reclamation Agreement** with conditions identical to this **Reclamation Agreement**.

(iii) provide a copy of all documents transferring ownership to the **Zoning Administrator**.

(b) The sale, assignment in fact or at law, or such other transfer of the **Principal's** interest in the **Project** shall in no way affect or change the **Principal's** obligation to continue to comply with the terms of this **Reclamation Agreement**. Any such transfer shall include, as one of its terms, that the successor or assignee shall assume the terms, covenants and obligation of this **Reclamation Agreement**.

(c) The **Zoning Administrator** shall release the **Financial Assurance** to the issuer only upon receipt of acceptable documentation from the new owner, and the issuer of the new owner's **Financial Assurance**, satisfying the **Zoning Administrator** of compliance with this Section (11), including but not necessarily limited to, documentation of the new **Financial Assurance**, any agreement between the new owner and the issuer of the **Financial Assurance**, and the new **Reclamation Agreement**, signed by the new owner and approved by the Champaign County Board.

(12) One hundred twenty (120) days prior to the expiration date of an irrevocable letter of credit submitted pursuant to this **Reclamation Agreement**, the **Zoning Administrator** shall notify the **Principal** in writing and request information about the **Principal's** intent to renew the letter of credit, or remove the **Project**. The landowner shall have thirty (30) days to respond in writing to this request. If the **Principal's** intention is to remove the **Project**, the **Principal** shall have a total of ninety (90) days, or reasonably agreed upon timeframe, from the initial notification to remove the **Project** and perform the **Reclamation Work**. At the end of ninety (90) days, or reasonably agreed upon timeframe, the **Zoning Administrator** shall have a period of thirty (30) days to either:

- (a) Confirm that the **Financial Assurance** has been renewed; or
- (b) Inspect the subject property to ensure the **Reclamation Work** has been performed.

At the end of this period, if the **Financial Assurance** has not been renewed and the **Reclamation Work** has not been performed, the **Zoning Administrator** may draw on the **Financial Assurance** and have the **Reclamation Work** performed

(13) The **Principal** shall reimburse **Champaign County** for all attorneys fees and legal fees incurred by **Champaign County** except to the extent of the intentional or willful and wanton misconduct of **Champaign County**, both before and after the **Reclamation Work**, in connection with the performance of the **Reclamation Work**; and, if any action at law or in equity, is brought by **Champaign County** to enforce this **Reclamation Agreement** and **Champaign County** prevails in such litigation, **Champaign County** shall be entitled to receive

from the **Principal** reasonable attorneys' fees and costs incurred, in addition to any other relief to which **Champaign County** may be entitled.

(14) **Consideration.** The **Principal's** consideration for this **Reclamation Agreement** shall include the stipulation of **Champaign County** that the **Principal** has complied with the requirement of Paragraphs 6.1.1.A.4.. and 6.1.4.P of the **Zoning Ordinance**, for so long as the **Principal** has complied with this **Reclamation Agreement**. The **Landowners'** consideration for this **Reclamation Agreement** shall include the economic viability of the **Principal**, and the decreased risk of abandonment of derelict equipment on their property, and other good and valuable consideration.

(15) In no event shall **Champaign County** be obliged by this **Reclamation Agreement** to the **Landowners** to perform any **Reclamation Work** for the benefit of the **Landowners**.

(16) Other requirements:

- (a) **Principal** shall notify **Champaign County** by certified mail of the commencement of a voluntary or involuntary bankruptcy proceeding, naming the **Principal** as debtor, within ten days of commencement of the proceedings.
- (b) **Principal** agrees that the sale, assignment in fact or at law, or such other transfer of **Principal's** financial interest in the **Project** and related equipment shall in no way affect or change **Principal's** obligation to continue to comply with the terms of this **Reclamation Agreement**. Any successor or assignee of **Principal** shall assume the terms, covenants and obligations of this Agreement and agree to be jointly and severally liable with the **Principal** for the **Reclamation Work** and all other reclamation liability for the **Project**.
- (c) **Principal** and the **Landowners** hereby authorize **Champaign County** the right of entry onto the **Project** premises for the purpose of inspecting the methods of reclamation, monitoring compliance with this **Reclamation Agreement**, confirming the **Principal's** assurances the **Project** has not been **Abandoned**. Upon **Abandonment**, the **Principal** and **Landowners** shall provide **Champaign County** and its prospective consultants and contractors access to the site of the **Project** for purposes of inspecting the site, and performing the **Reclamation Work**, if necessary.
- (d) **Forum Selection.** The parties agree that any disputes arising out of, related to, or connected with this **Reclamation Agreement** shall be litigated, if at all, solely in the Circuit Court of the Sixth Judicial Circuit, **Champaign County, Illinois**. The parties stipulate that jurisdiction and venue for any such disputes lies in this Court.
- (e) **Principal** shall defend, indemnify and hold harmless **Champaign County** from and against any and all claims, litigation, actions, proceedings, losses, damages, liabilities, obligations, costs and expenses, including reasonable attorneys',

investigators' and consulting fees, court costs and litigation expenses suffered or incurred by **Champaign County**, arising from any and all legal disputes, in law or equity, relating to the **Zoning Case**; and the actions or omissions of **Champaign County** or the **Principal** under this **Reclamation Agreement** or the **Special Use Permit**; whether such claims are brought by the **Landowners**, neighboring landowners, their respective assigns, successors in interest, third parties, or others, except to the limited extent such claims arise from the intentional or willful and wanton misconduct of **Champaign County**.

- (f) **No Waiver or Relinquishment of Right to Enforce Agreement.** Failure of any party to this **Reclamation Agreement** to insist upon the strict and prompt performance of the terms, covenants, agreements and conditions herein contained or any of them, upon any other party imposed, shall not constitute or be construed as a waiver or relinquishment of any party's right thereafter to enforce any such term, covenant, agreement or condition, but the same shall continue in full force and effect.
- (g) **Severability.** Should any provision of this **Reclamation Agreement** be held to be either invalid, void or unenforceable, the remaining provisions hereof shall remain in full force and effect, unimpaired by the holding.

(h) **Notices.** When any notice to the **Principal** is required by this **Reclamation Agreement**, it shall be deemed sent as of the date it is sent by registered or certified mail to the following address:

California Wind Energy LLC  
Attention: General Counsel  
1 South Wacker Drive, Suite 1900  
Chicago, Illinois 60606

**Principal** may change this address with thirty (30) days' notice by notifying the **Zoning Administrator** by registered or certified mail to the following address:

Champaign County Zoning Administrator  
1776 East Washington  
Urbana, Illinois 61801

Notice to **Landowners** may be sent to the addresses set forth in Attachment C.

- (i) **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. Delivery of an executed counterpart of a signature page to this **Reclamation Agreement** by telecopier shall be as effective as delivery of a manually signed counterpart to this

**Reclamation Agreement.**

- (j) Commencement of Project. This **Reclamation Agreement** shall be void if substantial construction of the **Project** is not commenced on or before March 1, 2013.
- (k) Governing Law. This **Reclamation Agreement** shall be governed by and interpreted in accordance with the laws of the State of Illinois (the state in which this **Reclamation Agreement** is deemed to have been executed and delivered), irrespective of any conflict of laws provisions.
- (l) Memorandum of Agreement. A Memorandum of this **Reclamation Agreement**, substantially in the form of Attachment D hereto, shall be recorded with the Champaign County Recorder of Deeds by the **Principal** at its expense within thirty (30) days after the execution of this **Reclamation Agreement** and a copy of the recorded Memorandum shall be delivered to the **Zoning Administrator** within sixty (60) days of the execution of this **Reclamation Agreement**.
- (m) This **Reclamation Agreement** shall survive the termination of the Special Use Permit.

(18) The signatory on behalf of California Ridge Wind Energy LLC has been authorized by California Ridge Wind Energy LLC to enter into this agreement.

[signature page to follow]

**PRINCIPAL:**

California Ridge Wind Energy LLC

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

**ACKNOWLEDGMENT**

STATE OF ILLINOIS            )  
  ) SS.  
COUNTY OF COOK            )

Personally came before me this \_\_\_\_ day of \_\_\_\_\_,  
2011, \_\_\_\_\_, who executed the foregoing instrument, and acknowledged  
the same, on behalf of California Ridge Wind Energy LLC.

(S E A L)

Name: \_\_\_\_\_  
Notary Public, State of Illinois  
My Commission Expires: \_\_\_\_\_

COUNTY:

Champaign County, State of Illinois

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

ACKNOWLEDGMENT



STATE OF ILLINOIS            )  
  ) SS.  
COUNTY OF CHAMPAIGN        )

Personally came before me this \_\_\_\_ day of \_\_\_\_\_,  
2011, \_\_\_\_\_, who executed the foregoing instrument, and acknowledged  
the same, on behalf of Champaign County, State of Illinois.

(S E A L)

Name: \_\_\_\_\_  
Notary Public, State of Illinois  
My Commission Expires: \_\_\_\_\_

RECEIVED

OCT 6 2011

CHAMPAIGN CO. P. & Z. DEPARTMENT

**California Ridge Wind Project -  
Base Decommissioning Cost Estimate**

Item	Description	Units	Quantity per Unit	\$ / Unit	Total
<b>Decommissioning Expense</b>					
1	Overhead and Management	Lump Sum		\$250,000	\$250,000
2	Mobilization and demobilization	Lump Sum		\$350,000	\$350,000
3	Civil - Roads and Pads				
4	Crane pad installation, removal, transportation and disposal (2)	Lump Sum		\$28,400	\$28,400
5	Roadway removal and disposal	Lump Sum		\$257,200	\$257,200
6	Site Restoration & Decommissioning	Lump Sum		\$310,900	\$310,900
7	Civil - Public Roads				
8	Road Repairs (1)	Lump Sum		\$300,000	\$300,000
9	Foundation Removal				
10	Concrete demolition for 54" depth of pedestal (pedestal only removal)	30 turbines		\$10,000	\$300,000
11	Disposal and backfill for turbines	30 turbines		\$3,500	\$105,000
12	Tower & Transformer Removal				
13	Crane and disassembly of tower sections	30 turbines		\$63,000	\$1,890,000
14	Deconstruction into salvagable pieces	30 turbines		\$52,500	\$1,575,000
15	Demolition, transport and dumping for blades & nacelle cover (3)	30 turbines		\$2,000	\$60,000
16	Transport to recycler (4)				
17	Steel	30 turbines		\$7,500	\$225,000
18	Copper	30 turbines		\$3,000	\$90,000
19	Transformer (load onto recycler transport only-Refurbisher hauls to his shop)	30 turbines		\$1,000	\$30,000
			Total Decommissioning Cost		\$5,771,500
<b>Salvage Value For Recoverable Materials (5)</b>					
20	Tower	30 turbines			
21	Nacelle	30 turbines	253 tons	\$323	\$2,451,086
22	Hub	30 turbines	22 tons	\$323	\$213,955
23	Anchor Bolts	30 turbines	101 tons	\$323	\$979,659
24	Copper (6)	30 turbines	2 tons	\$323	\$19,380
25	Transformer	30 turbines	6.5 tons	\$5,776.00	\$1,126,320
			1 transformer	\$2,500	\$75,000
			Total Salvage Value		\$4,865,400
<b>Base Decommissioning Cost</b>					
			Base Decommissioning Cost		\$906,100

(1) Pre-construction work will be performed to upgrade roads in order to support turbines, foundations and access roads construction. Since foundations will mostly remain in-situ, upgrades and repairs should be negligible considering the upgrades being performed upfront and typical maintenance to occur over 25 years. Turbines, blades, towers and the foundation pedestals equate to approximately one third of the entire turbine assembly, the bottom portion of the foundation is the majority of the weight associated with road upgrades.

HDR Engineering, Inc. 10.6.2011

## California Ridge Wind Project - Base Decommissioning Cost Estimate

### ATTACHMENT A

(2)	Transportation of road and crane pads will be to a local rock supplier in the Danville or Champaign area			
(3)	Transportation of blades and nacelle cover would be to a local landfill in the Danville area			
(4)	Transportation of recyclable materials would be in smaller trucks to steel mills along the Mississippi or East Chicago (Truck size will be limited by the road load limits in place at the time of de-Construction or Decommissioning)			
(5)	Steel prices based upon 5-year average from <a href="http://steelonthenet.com/commodity_prices.html">steelonthenet.com/commodity_prices.html</a>			
(6)	Copper prices based on 5-year average prices from USGS.			

June 2011

# CALIFORNIA RIDGE WIND ENERGY PROJECT DECOMMISSIONING REPORT

CHAMPAIGN COUNTY, ILLINOIS

Invenergy

Prepared for:

California Ridge Energy LLC  
c/o Invenergy Wind LLC  
One South Wacker Drive  
Suite 1900  
Chicago, IL 60606

Prepared by

HDR Engineering, Inc.  
701 Xenia Avenue South  
Minneapolis, MN 55416



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**CALIFORNIA RIDGE WIND ENERGY**

**SYSTEM DESCRIPTION**

The California Ridge Wind Energy, LLC (Project), is proposed to be a 200 Megawatt (MW) wind energy conversion system in Vermilion and Champaign counties, located north of the town of Royal and south of the cities of Gifford and Potomac, Illinois. The proposed wind farm will consist of the following primary components:

<b>Item</b>	<b>Number</b>	<b>Unit measure</b>
Wind Turbines	134	Each
Wind Turbine Foundations	134	Each
Step-Up Transformers	134	Each
Access Roads	198,026	Lineal Foot (estimate)
Medium Voltage Cable	425,937	Lineal Foot (estimate)
<i>Note: The exact number of turbines and lengths of access roads and medium voltage cables may change prior to construction. The lengths provided here are based on a May 2011 layout. California Ridge Wind Energy will provide as-built plans to the counties following construction.</i>		

**DECOMMISSIONING SEQUENCE**

In the event the Project requires decommissioning and removal, the following sequence for removal of the components will be used:

- Remove Rotors and Turbines
- Remove Towers and Internals
- Remove Collection Step-Up Transformers
- Partial Remove Wind Turbine Foundations
- Remove Access Roads

After removal of all equipment and materials the area will be regraded and topsoil will be restored.

**WIND TURBINES**

**WIND TURBINE TECHNICAL DATA**

The Project will use 134 GE 1.6-100 50/60 Hz (690 Volt electric power) Wind Turbines manufactured by General Electric for a system generating capacity of approximately 214 MW (figure 1). The towers are painted monopole tubular steel, white in color, with a hub height of 100 meters (328 feet). The project will use 100 meter (328 foot) diameter rotors. Each turbine and rotor will reach a total height of 150 meter (492 feet) above ground surface.

Properly maintained wind turbines have a minimum life of 20 years (Ton van de Wekken 2007). At the end of the project life, depending on market conditions and project viability, the wind turbines may be “re-powered” with new nacelles, towers, and/or blades. Alternatively, the wind turbines may be decommissioned and removed. The major components of the wind turbines (the tower, the nacelle, and blades) are modular items that allow for ease of construction and disassembly during decommissioning or replacement. Each tower is made up of approximately 253 tons of painted steel which is potentially salvageable. The nacelle has an overall unit weight of approximately 40 tons and is constructed of a combination of salvageable steel and various other materials. Portions of the components within the nacelle and generators can also be salvaged for scrap.

**METALS SALVAGE**

Based on the construction details presented for the GE 1.6-100 turbine and associated tower and components, it was assumed that the tower and nacelle will yield approximately 80% salvageable materials. Since the hub assembly and bed plate are of manufactured steel, it is anticipated that the hub assembly will yield 100 percent salvageable metallic materials. Copper estimates were derived from manufacturers' cable descriptions, from the down tower cabling and internal wiring. Since the rotor/blades are constructed of predominantly non-metallic materials (fiberglass reinforced epoxy and carbon fibers), no salvage value for the rotor blades was used to develop the decommissioning cost estimate.

The current market value of steel, based on *Steelonthenet.com* (June 2011), is approximately \$380 per ton. Assuming only the steel from each turbine assembly and tower will be salvaged the salvage value of each turbine and tower assembly is estimated to be approximately \$124,465 each. Turbine salvage values could range from \$40,688 to \$174,652 given that market values fluctuate and the price of steel historically has shifted from \$106 to \$455 per ton.

The market value of copper has fluctuated dramatically this past year. As of December 2009, the price is approximately \$4.14 per pound (\$8,280 per ton). Therefore, estimated salvage value for copper is approximately \$53,820 per turbine. The total value for both copper and steel would be approximately \$180,785 per turbine. The table below summarizes the potential salvage value per turbine.

Item	Unit	Price/unit	Price per Turbine
Tower (80% steel)	252.95 Ton	\$380	\$76,897
Nacelle (80% steel)	27.6 Ton	\$380	\$8,390
Hub (100% steel) and bed plate	101.1 Ton	\$380	\$38,418
Anchor Bolts	2.0 Ton	\$380	\$760
<b>Total Steel price</b>			<b>\$124,465</b>
Copper	6.5 Ton	\$8,280	\$53,820
Transformers	1 each	\$2,500	\$2,500
<b>Grand Total</b>			<b>\$180,785</b>

The estimated 2011 cost of erecting a turbine tower, hub, blades, and nacelle is approximately \$98,000. Therefore, the dismantling costs will be approximately \$98,000 per turbine location in 2011 costs. When the cost to transport the salvage unit is included, the total cost of dismantling the turbines and removing them from the site will be approximately \$129,000 per turbine. The removal costs are summarized in the conclusions of this report. The remainder of this report addresses the decommissioning costs for the surface and subsurface components.

**WIND TURBINE TRANSFORMERS**

**Wind Turbine Transformer Design/Decommissioning**

Each turbine step-up transformer sits adjacent to the turbine and is approximately 6 feet high and 6 feet wide. Each transformer will be disconnected, removed from site, and disposed of according to environmental and other regulatory conditions current at the time of the decommissioning. Salvagers have indicated that they would remove the transformers for a \$2,500 credit per turbine. After decommissioning activities, the transformer pad areas will be scarified, as necessary and in consultation with the landowner, and the land restored as near as practicable to its original condition with native seed and soils.

**WIND TURBINE FOUNDATIONS**

**Wind Turbine Spread Foundation Design/Decommissioning**

Each octagonal spread foundation pedestal and base is required by Vermilion County to be removed to a depth of 36 inches below the proposed final ground surface. The upper 54 inches of the turbine foundation will be removed by a jack hammer mounted on a bobcat or excavator. Complete off-site removal for demolition and disposal of the removed portions of the foundations is required per the lease agreement between the Project and the landowners hosting turbines. For the purpose of this report, the cost of removal and disposal off site is used to estimate the decommissioning costs of the foundations.

There is essentially no salvage value to the turbine foundations. The spread footing foundation design will consist of a solid reinforced concrete circular pedestal with dimensions of approximately 17 feet diameter, and an overall pedestal height of approximately 4 feet, 6 inches. Below the foundation pedestal is the foundation base section, an estimated octagonal geometry that is approximately 60 feet across the flat sides of the octagon, with an overall base thickness of 8 feet, 6 inches. The base sits on the supporting sub-grade approximately 12 feet below finish grade. A typical spread footing design is shown in Figure 2. The removal and disposal of the foundations are estimated as follows:

<b>Activity</b>	<b>Cost</b>	<b>Unit</b>
Mobilization and Excavation - Assume 1 Foundation per Day	\$2,500	per Foundation
Concrete Demolition - Assume 1/2 of a Foundation Pedestal per Day	\$10,000	per Foundation
Disposal/Backfill - Assume 1 Foundation per Day	\$3,500	per Foundation
Subtotal	\$16,000	per Foundation
<b>Total Estimated Cost for 134 Foundation Removals</b>	<b>\$2,144,000</b>	<b>Total</b>

**ACCESS ROADS**

**Typical Access Road Construction Details**

For the purposes of this report, the total length of access roads for the Project has been estimated at 198,026 linear feet, or 37.5 miles. The typical access road detail is included as Figure 3. The final access roads to each turbine will be approximately 16 feet wide with enlarged areas at the turbine sites and at intersections with connecting public roads. The existing soils will be excavated, shaped, and graded to match the typical contour of the land adjacent to the access road and compacted prior to construction of the roads. The construction of the access roads may consist of a geotextile fabric placed on a prepared subgrade with 6 inches of aggregate base (pit run gravel) and 6 inches of aggregate surface course Type B (CA-6), resulting in the estimated quantities as shown below:

<b>Item</b>	<b>Number</b>	<b>Unit</b>
Geotextile Fabric	352,046	Square Yards
Aggregate Base Course	58,674	Cubic Yards
Aggregate Surface Course	58,674	Cubic Yards

**Access Road Decommissioning and Public Street Repair**

Access road decommissioning will involve the removal and transportation of the aggregate materials from the site to a nearby site where the aggregate can be processed for salvage. It is possible that the local townships or farmers may accept this material without processing to use on their local roads; however, for the purpose of this report it is assumed that the materials will be removed and hauled to a reprocessing



## ATTACHMENT B

site within 25 miles of the wind farm site. Any public streets damaged due to the reclamation process shall be repaired.

The decommissioning will also involve the removal and proper disposal of the geotextile fabric. It is assumed that during excavation of the aggregate a large portion of the geotextile will be “picked up” and sorted out of the aggregate at the aggregate reprocessing site. Geotextile fabric that is remaining, or large pieces that can readily be removed from the excavated aggregate, will be disposed of off site at a landfill.

In determining salvage value for the road materials, it was assumed that 75 percent of the aggregate surface course can ultimately be salvaged for future use as aggregate base course. It was also assumed that 50 percent of the aggregate base course could be reused as aggregate base course and that the remaining materials would be viable for general fill in non-structural fill areas. The geotextile fabric would not be suitable for use after removal so was not considered to have a salvage value. The following salvage values are used for the road materials assuming they will be picked up and hauled from the process site by others:

<b>Removal Items</b>	<b>Cost</b>	<b>Unit</b>
Reprocessed Aggregate to be used as Base Course	\$5.30	per Cubic Yard
Remaining Aggregate to be used as Fill	\$1.60	per Cubic Yard

The only scenario that could offer a lower cost for removal and salvage of the aggregate would be disposal at a nearby site that needed inert fill. There are no known sites in the area. Therefore, the decommissioning cost of the roads is based upon removal and salvage of the aggregate for use as base course or inert fill within a 25-mile radius of the wind farm site. The estimated costs for access road decommissioning would be as follows:

<b>Removal Items</b>	<b>Quantity</b>	<b>Cost</b>	<b>Salvage</b>	<b>Net Cost</b>
Geotextile Fabric (Square Yards)	352,046	\$176,023	-	\$176,023
Aggregate Base Course (Cubic Yards) (Reprocessed as Aggregate Base Course)	29,337	\$357,914	\$155,487	\$202,427
Aggregate Base Course (Cubic Yards) (Reprocessed as Fill)	29,337	\$357,914	\$46,939	\$310,974
Aggregate Surface Course (Cubic Yards) (Reprocessed as Aggregate Base Course)	44,006	\$536,870	\$233,231	\$303,640
Aggregate Surface Course (Cubic Yards) (Reprocessed as general fill in non-structural fill areas)	14,669	\$178,957	\$23,470	\$155,487
<b>Totals</b>		<b>\$1,607,678</b>	<b>\$459,127</b>	<b>\$1,148,551</b>

### **CRANE PADS**

Crane pads will be approximately 60 feet by 40 feet and consist of compacted native material and approximately 1 foot of base fill. Crane pad aggregate will be removed and pad areas will be filled and scarified after decommissioning activities. The restoration will be performed in consultation with the landowner and pad sites will be restored as near as practicable to their original condition with native seed and soils. The estimated costs for crane pad decommissioning would be as follows:

## ATTACHMENT B

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California Ridge Wind Energy Project

Removal Items	Quantity	Cost	Salvage	Net Cost
Geotextile Fabric (Square Yards)	35,733	\$17,867	-	\$17,867
Aggregate Base Course (Cubic Yards) (Reprocessed as Aggregate Base Course)	2,978	\$36,329	\$15,782	\$20,547
Aggregate Base Course (Cubic Yards) (Reprocessed as Fill)	2,978	\$36,329	\$4,764	\$31,564
Aggregate Surface Course (Cubic Yards) (Reprocessed as Aggregate Base Course)	5,956	\$72,658	\$31,564	\$41,093
Aggregate Surface Course (Cubic Yards) (Reprocessed as general fill in non-structural fill areas)	1,489	\$18,164	\$2,382	\$15,782
<b>Totals</b>		<b>\$181,347</b>	<b>\$54,493</b>	<b>\$126,853</b>

### **CABLES**

#### **Cable Wire and Trench Typical Installation**

All cable trenches will be a minimum of 48 inches below the ground surface. In all cable locations outside of access roads, the trenches are backfilled with on-site earthen materials with at least 6 inches of topsoil. At roads, the cables will be in conduits which are a minimum of 48 inches below the final surface. The estimated total medium voltage cable length is 425,937 lineal feet.

#### **Cable Wire and Trench Decommissioning**

Since the cables will be located well below the ground surface and will not impose an obstacle to farm activities, physical removal of the cables is not considered to be required to restore the former use of the ground.

### **EARTHWORK AND TOPSOIL RESTORATION**

Once all of the aboveground improvements are removed, the remaining work to complete Project decommissioning will consist of shaping and grading of the areas to as near as practicable to their original contour prior to construction of the turbine sites and access roads.

It is estimated that approximately 64,630 cubic yards of earthwork and topsoil will be necessary for restoration. Based upon the typical cost for this type of work within the Vermilion and Champaign county area, and the assumption that earth and topsoil can be found within 25 miles of the wind farm site, the following estimate of decommissioning cost for earthwork and topsoil restoration is provided:

Item	Quantity (Cubic Yards)	Cost per Cubic Yard	Total Cost
Earth Fill (cubic yards) (access roads, crane pad and foundation pedestal areas)	64,630	\$10.60	\$685,078
Topsoil (cubic yards) and seed planting	64,630	\$10.60	\$685,078

**SUMMARY OF DECOMMISSION COSTS**

The following is a summary of the total estimated costs for Project decommissioning. This estimate was developed using the various cost resources listed below:

- R.S. Means
- HDR Historical Data
- Vendor Quotes
- Current/Historic Commodity Prices
- Estimator Judgment

<b>Salvage Value</b>	
Turbine Component Salvage Value (134 Turbines x \$180,785)	\$24,225,217
<b>Decommissioning Costs</b>	
Turbine Removal (134 x \$129,000)	\$17,286,000
Turbine Foundation Removal	\$2,144,000
Access Roadway Removal	\$1,148,551
Crane Pad Removal	\$126,853
Cable Removal	\$0
Earthwork and Topsoil	\$1,370,154
<b>Subtotal</b>	<b>\$22,075,559</b>
<b>Salvage Less Decommissioning</b>	<b>\$2,149,658</b>
<b>Net Salvage Value per Turbine (134 Total)</b>	<b>\$16,042</b>

The estimated total decommissioning costs of the Project can be completely recovered by the salvage and resale value of the turbine components. These values are based on estimated 2011 costs and do not assume any inflation costs or market fluctuations.

**FINANCIAL ASSURANCE**

To ensure accuracy in the material quantities outline above, HDR recommends that this report and the final engineering drawings be reviewed by our office prior to operation of the Project to verify final material quantities.

For Champaign County, financial assurances shall be 210% of an independent professional engineer's cost estimate to complete the decommissioning, or less, if specifically authorized by the County Board. The form of financial assurance will be a letter of credit. California Ridge Wind Energy LLC shall gradually pay down the value of the irrevocable letter of credit by placing cash deposits in an escrow account over the first 13 years of the Project operation as described by Champaign County Ordinance No. 848, Section 6.1.4.P. During the lifespan of the wind farm the amount of the irrevocable letter of credit shall be increased as necessary to reflect actual rates of inflation. The financial assurance will further provide that the terms of the Decommissioning Plan be binding upon California Ridge Wind Energy LLC and any successors, assigns, or heirs; and that the County will have access to the site, pursuant to reasonable notice, to effect or complete the decommissioning, if required. In order to provide funding for decommissioning at the time of decommissioning, California Ridge Wind Energy LLC may exchange a

**ATTACHMENT B**

Invenergy

California Ridge Wind Energy Project

new irrevocable letter of credit in an amount equal to the amount in the escrow account in exchange for the Governing Body agreeing to a release of the full amount of the escrow account. California Ridge Wind Energy LLC shall comply with Champaign County Zoning Ordinance No. 848, 6.1.4 P Standard Condition for Decommissioning Plan and Site Reclamation Agreement

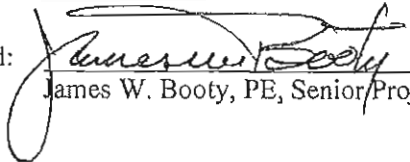
**CONCLUSION**

I certify that this report is an accurate representation of the anticipated decommissioning costs (or salvage value) at this preliminary stage of development and was prepared in accordance with industry standards of care for engineering evaluations of this type and contains no intentional false statements or misrepresentations.

**I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Illinois.**

Signed:   
Matt Redington, PE, Project Manager

Matthew Redington  
Date 6/27/11 Reg. No. 062.062941

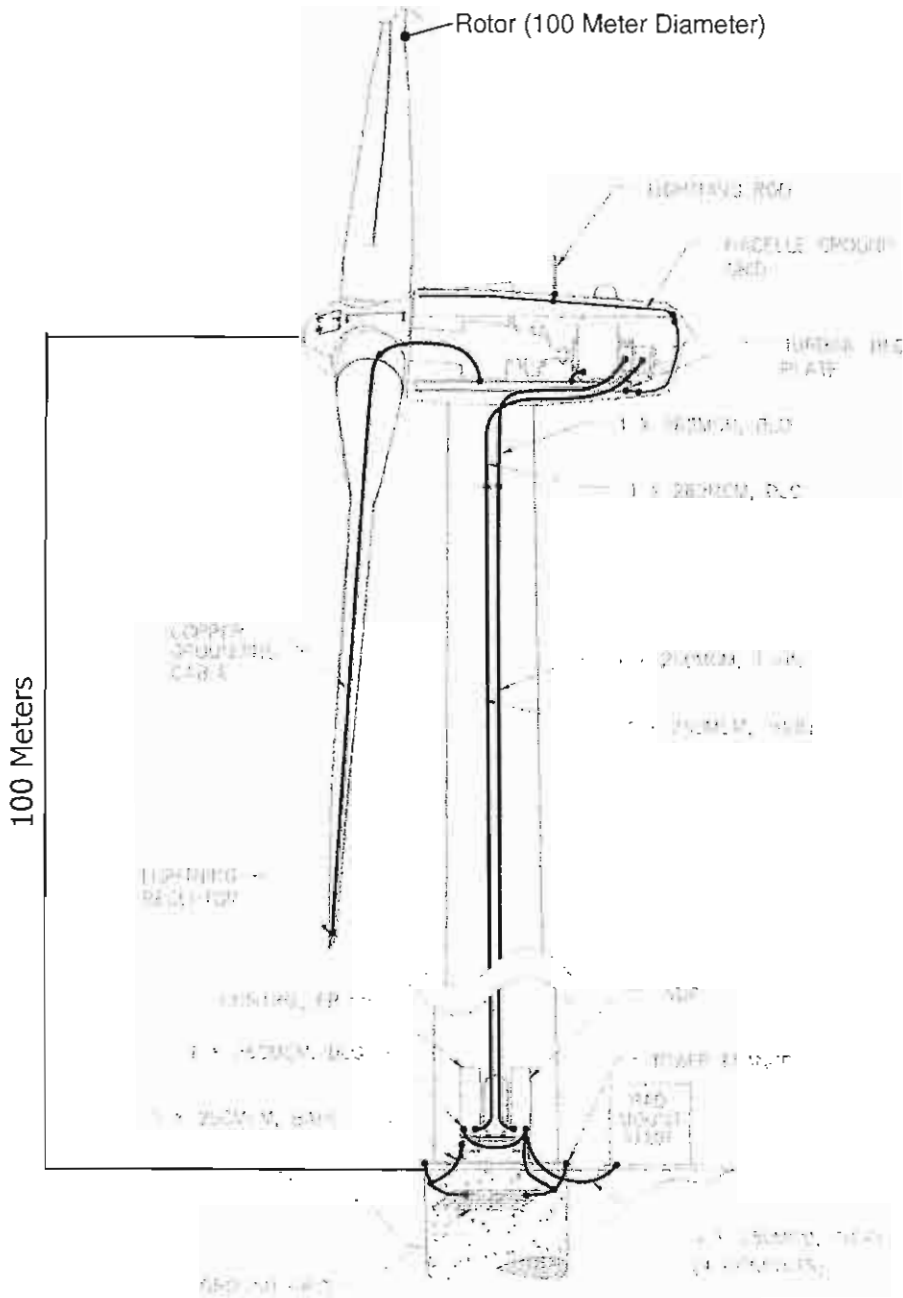
Signed:   
James W. Booty, PE, Senior Project Engineer



**REFERENCES**

- GE Energy Commercial Documentation Wind Turbine Generator Systems 1.6-100 – 50 & 60 Hz, Weights and Dimensions; 2010 (1.6-100 xxHz\_GD\_all Comp\_ContrDocWSDxxx00.doc)
- Ton van de Wekken, KEMA Nederland B.V. 2007. *Distribution Generation and Renewables*. Wind Farm Case Study.
- Steelmaking Commodity Prices, World steel raw materials & energy prices. Steelonthe net.com, accessed June 6, 2011.  
[http://www.steelonthenet.com/commodity\\_prices.html](http://www.steelonthenet.com/commodity_prices.html)

**FIGURE 1  
INVENERGY WIND LLC  
CALIFORNIA RIDGE DECOMMISSIONING PLAN  
TYPICAL WIND TURBINE GENERATOR**

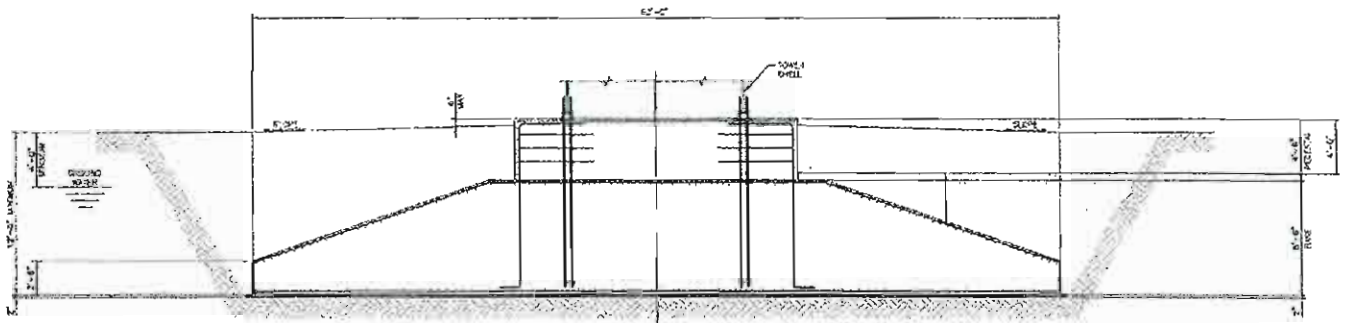


Note: Referenc Image from Technical Documentation,  
Wind Turbine Generator Systems, GE.



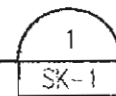
Map Document: (\\mspe-gis-1\GISProj\Invenergy\98073\_CaliforniaRidge\map\_docs\mxd\Decommissioning\CaliforniaRidge\_DecommissioningFig1.mxd)  
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FIGURE 2  
INVENERGY WIND LLC  
CALIFORNIA RIDGE DECOMMISSIONING PLAN  
TYPICAL FOUNDATION SECTION

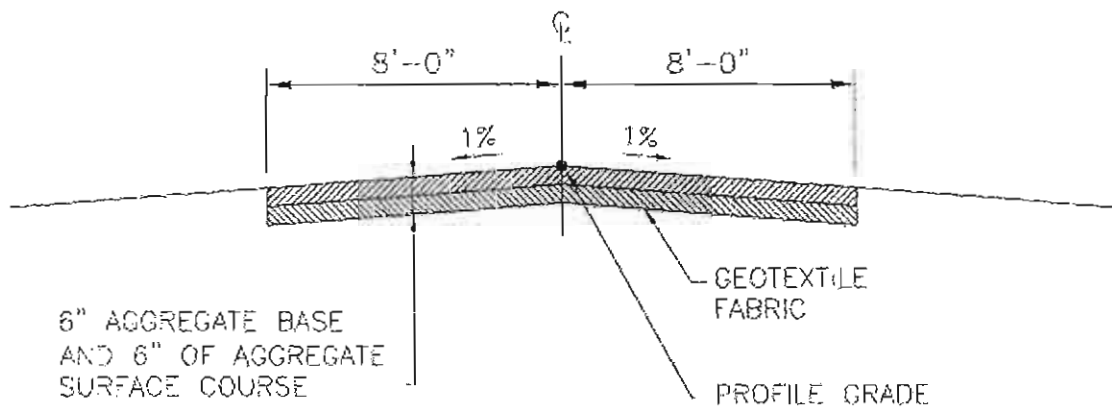


TYPICAL FOUNDATION SECTION

SCALE: NONE

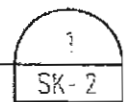


**FIGURE 3**  
**INVENERGY WIND LLC**  
**CALIFORNIA RIDGE DECOMMISSIONING PLAN**  
**TYPICAL ACCESS ROAD SECTION**



TYPICAL ACCESS ROAD— SECTION A

SCALE: NONE



Map Document: \\msps-gis-file\CISP\invenenergy\ben73\_CaliforniaRidge\map\_docs\mxd\DecommissioningCaliforniaRidge\_DecommissioningFig3.mxd  
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**Case 696-S-11 California Ridge Wind Farm**

**ATTACHMENT L – As Approved (Recommend Denial)  
Summary of Evidence, Finding of Fact, and Final Determination for  
Case 696-S-11**

**AS APPROVED- RECOMMEND DENIAL**

**696-S-11**

**SUMMARY OF EVIDENCE, FINDING OF FACT  
AND FINAL DETERMINATION**

**of**

**Champaign County Zoning Board of Appeals**

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Final Determination: **RECOMMEND DENIAL WITH WAIVERS AND SPECIAL CONDITIONS**

Date: October 20, 2011

Petitioners: California Ridge Wind Energy LLC and the landowners listed in the attached list of participating landowners

Request: Authorize a Wind Farm which consists of 30 Wind Farm Towers (wind turbines) in total with a total nameplate capacity of 48 megawatts (MW) of which 28 Wind Farm Towers with a total nameplate capacity of 44.8 MW are proposed in Compromise Township (Part A) and 2 Wind Farm Towers with a total nameplate capacity of 3.2 MW are proposed in Ogden Township (Part B), and including access roads, wiring, and public road improvements, and including the following waivers of standard conditions:

1. Waive the standard condition of 6.1.4 D. 1 (a) that requires certificates of design compliance from Underwriters Laboratories (“UL”) or equivalent third party.
  2. Waive the standard condition of 6.1.4 F.1. that requires a signed Roadway Upgrade and Maintenance Agreement prior to the close of the public hearing before the Zoning Board of Appeals.
  3. Waive the standard condition of 6.1.4 F.1.u. that requires street upgrades be in accordance with IDOT Bureau of Local Roads manual, 2005 edition.
  4. Waive the standard condition 6.1.4 I. 1. that requires the noise level of each wind farm tower and wind farm to be in compliance with the Illinois Pollution Control Board regulations at the residential property line rather than to be compliance just at the dwelling.
  5. Waive the standard condition of 6.1.4 J. that requires the application to contain a copy of the Agency Action Report from the Illinois Department of Natural Resources Endangered Species Program.
  6. Waive the standard condition of 6.1.4 S.1.(c)(3) that requires that locations of wind turbines for the zoning use permit application cannot increase the noise impact over that approved in the special use permit.
- 

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**SUMMARY OF EVIDENCE.....pages 2- 64**  
**DOCUMENTS OF RECORD.....pages 65 - 72**  
**FINDING OF FACT.....pages 73 - 88**  
**FINAL DETERMINATION.....pages 89 - 96**  
**LIST OF PARTICIPATING LANDOWNERS .....pages 97- 104**

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## SUMMARY OF EVIDENCE

From the documents of record and the testimony and exhibits received at the public hearing conducted on **August 25, 2011; September 1, 2011; September 8, 2011; September 29, 2011; October 6, 2011; and October 13, 2011; and October 20, 2011**, the Zoning Board of Appeals of Champaign County finds that:

1. The petitioners are California Ridge Wind Energy LLC and the participating landowners.  
Regarding the petitioners:
  - A. California Ridge Wind Energy LLC is wholly owned by Invenergy Wind North America LLC, One South Wacker Drive, Suite 1900, Chicago, IL 60606, with President, Michael Polsky; Vice President, James Murphy; Vice-President, Bryan Schueler; Vice-President, James Shield; Vice-President, Kevin Parzyck; Secretary, Joseph Condo, all with offices at One South Wacker Drive, Suite 1900, Chicago, IL 60606. Invenergy is headquartered in Chicago and has 21 completed and operating wind projects and has four wind projects in construction and three other wind projects under contract and recently received approval for more than 100 wind turbines in adjacent Vermilion County as part of the overall California Ridge wind project.
  - B. The participating landowners listed in the attached list have signed grants for the use of their property for the proposed wind farm.
2. The subject property consists of approximately 10,193 acres in the following townships:
  - A. In Compromise Township the following sections are included with exceptions as described in the attached list of participating landowners and relevant properties:
    - (1) Sections 19, 20, 21, 28, 29, 30, 31, 32, and 33 of T21N, R14W of the 2<sup>nd</sup> P.M.,
    - (2) Sections 24, 25, and 36 of T21N, R10E of the 3<sup>rd</sup> P.M.,
    - (3) Fractional Sections 30 and 31 of T21N, R11E, of the 3<sup>rd</sup> P.M.
  - B. In Ogden Township the following sections are included with exceptions as described in the attached list of participating landowners and relevant properties:
    - (1) Fractional Section 6, T20N, R11E of the 3<sup>rd</sup> P.M.,
    - (2) Fractional Sections 4, 5, 6, and 7 of T20N, R14W of the 2<sup>nd</sup> P.M.,
    - (3) Sections 8, 9, and 16 of T20N, R14W of the 2<sup>nd</sup> P.M.
3. No part of the subject property is located within the one-and-one-half miles of the Village of Royal which is a municipal zoning jurisdiction. Illinois law (55 ILCS 5/5-12020) reserves jurisdiction over wind farms and electric generating wind devices within one-and-one-half miles of a municipal zoning jurisdiction to that municipality and so Champaign County cannot authorize any wind farm development within a mile and a half of the Village of Royal.

***GENERALLY REGARDING LAND USE AND ZONING IN THE IMMEDIATE VICINITY***

4. The proposed wind farm is in the AG-1 Agriculture Zoning District and surrounds an isolated portion of the CR Conservation Recreation Zoning District in Fractional Section 4 of Ogden Township and also the B-1 Rural Trade Center Zoning District at Dailey in Section 33 of Compromise Township. Land use within the area of the proposed wind farm consists primarily of agriculture but there are also individual single family dwellings throughout the area and an FS fertilizer plant at Dailey.

***GENERALLY REGARDING THE PROPOSED SPECIAL USE***

5. Regarding the site plan of the proposed WIND FARM, there is no single map or plan of the WIND FARM and the site plan consists of the following documents:
  - A. California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011
  - B. Status Summary Map with Setbacks California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011 (an excerpt of only the Champaign County portion)
  - C. Champaign County Non-Participating Dwelling Separation Summary map received July 29, 2011 Parcel
  - D. Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011

***GENERALLY REGARDING SPECIFIC ORDINANCE REQUIREMENTS***

6. Regarding authorization for a “wind farm” in the AG-1 Agriculture Zoning District in the *Zoning Ordinance*:
  - A. The County Board amended the Zoning Ordinance by adopting revised wind farm requirements when it adopted Ordinance No. 848 on May 21, 2009. Subsequent amendments revised the definition of a WIND FARM and a WIND FARM TOWER (Ordinance No. 863 (Case 634-AT-08 Part B)) and revised the basic reclamation agreement requirements and the Restricted Land Area and Airport separations (Ordinance No. 861 (Case 658-AT-09)) and eliminated contradictory requirements related to shadow flicker (Ordinance No. 864 (Case 664-AT-10)).
  - B. Section 5.2 only authorizes “wind farm” in the AG-1 District and requires a special use permit authorized by the County Board.

**AS APPROVED- RECOMMEND DENIAL**

Item 6 (continued)

- C. Paragraph 6.1.2 A. indicates that all Special Use Permits with exterior lighting shall be required to minimize glare on adjacent properties and roadways by the following means:
- (a) All exterior light fixtures shall be full-cutoff type lighting fixtures and shall be located and installed so as to minimize glare and light trespass. Full cutoff means that the lighting fixture emits no light above the horizontal plane.
  - (b) No lamp shall be greater than 250 watts and the Board may require smaller lamps when necessary.
  - (c) Locations and numbers of fixtures shall be indicated on the site plan (including floor plans and building elevations) approved by the Board.
  - (d) The Board may also require conditions regarding the hours of operation and other conditions for outdoor recreational uses and other large outdoor lighting installations.
  - (e) The Zoning Administrator shall not approve a Zoning Use Permit without the manufacturer's documentation of the full-cutoff feature for all exterior light fixtures.
- D. Subsection 6.1.4 contains the standard conditions for any WIND FARM which are as follows (capitalized words are defined in the Ordinance):
- (1) Requirements for what must be included in the area of the WIND FARM are in 6.1.4A.
  - (2) Paragraph 6.1.4 B. eliminates LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, and LOT COVERAGE requirements from applying to a WIND FARM.
  - (3) Paragraph 6.1.4 C. contains minimum separations for WIND FARM TOWERS from other STRUCTURES, BUILDINGS, and USES and provides for PRIVATE WAIVERS of minimum separations.
  - (4) Paragraph 6.1.4 D. contains standard conditions for the design and installation of WIND FARM TOWERS.
  - (5) Paragraph 6.1.4 E. contains standard conditions to mitigate damage to farmland.
  - (6) Paragraph 6.1.4 F. contains standard conditions for use of public streets.
  - (7) Paragraph 6.1.4 G. contains standard conditions for coordination with local fire protection districts.

Item 6.D. (continued)

- (8) Paragraph 6.1.4 H. contains standard conditions to eliminate electromagnetic interference.
  - (9) Paragraph 6.1.4 I. contains standard conditions for the allowable noise level.
  - (10) Paragraph 6.1.4 J. contains standard conditions for endangered species consultation.
  - (11) Paragraph 6.1.4 K. contains standard conditions for historic and archaeological resources review.
  - (12) Paragraph 6.1.4 L. contains standard conditions for acceptable wildlife impacts from WIND FARM construction and ongoing operation of the WIND FARM.
  - (13) Paragraph 6.1.4 M. contains standard conditions for shadow flicker caused by the rotors of the WIND FARM TOWERS.
  - (14) Paragraph 6.1.4 N. contains standard conditions for the minimum liability insurance for the WIND FARM.
  - (15) Paragraph 6.1.4 O. contains other standard conditions for operation of the WIND FARM.
  - (16) Paragraph 6.1.4 P. contains standard conditions for a decommissioning plan and site reclamation agreement for the WIND FARM and modifies the basic site reclamation requirements in paragraph 6.1.1 A.
  - (17) Paragraph 6.1.4 Q. contains standard conditions for a complaint hotline for complaints related to WIND FARM construction and ongoing operation.
  - (18) Paragraph 6.1.4 R. contains the standard condition for expiration of the WIND FARM County Board Special Use Permit.
  - (19) Paragraph 6.1.4 S. contains standard conditions establishing additional requirements for application for a WIND FARM County Board Special Use Permit that supplement the basic requirements for a special use permit application.
- E. Paragraph 9.1.11.D.1. states that a proposed Special Use that does not conform to the standard conditions requires only a waiver of that particular condition and does not require a variance. Regarding standard conditions:
- (1) The Ordinance requires that a waiver of a standard condition requires the following findings:

AS APPROVED- RECOMMEND DENIAL

Item 6.E.(1) (continued)

- (a) that the waiver is in accordance with the general purpose and intent of the ordinance; and
  - (b) that the waiver will not be injurious to the neighborhood or to the public health, safety, and welfare.
- (2) However, a waiver of a standard condition is the same thing as a variance and Illinois law (55ILCS/ 5-12009) requires that a variance can only be granted in accordance with general or specific rules contained in the Zoning Ordinance and the VARIANCE criteria in paragraph 9.1.9 C. include the following in addition to criteria that are identical to those required for a waiver:
- (a) Special conditions and circumstances exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district.
  - (b) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied will prevent reasonable or otherwise permitted use of the land or structure or construction
  - (c) The special conditions, circumstances, hardships, or practical difficulties do not result from actions of the applicant.
- (3) Including findings based on all of the criteria that are required for a VARIANCE for any waiver of a standard condition will eliminate any concern related to the adequacy of the required findings for a waiver of a standard condition and will still provide the efficiency of not requiring a public hearing for a VARIANCE, which was the original reason for adding waivers of standard conditions to the Ordinance.
- F. The following definitions from the *Zoning Ordinance* are especially relevant to the requested Special Use Permit (capitalized words are defined in the Ordinance):
- (1) DWELLING OR PRINCIPAL BUILDING, PARTICIPATING: A DWELLING on land that is leased to a WIND FARM.
  - (2) DWELLING OR PRINCIPAL BUILDING, NON- PARTICIPATING: A DWELLING on land that is not leased to a WIND FARM.
  - (3) NON-ADAPTABLE STRUCTURE: Any STRUCTURE or physical alteration to the land which requires a SPECIAL USE permit, and which is likely to become economically unfeasible to remove or put to an alternate USE allowable in the DISTRICT (by right or by SPECIAL USE).

Item 6.F. (continued)

- (4) PRIVATE WAIVER: A written statement asserting that a landowner has agreed to waive a specific WIND FARM standard condition and has knowingly agreed to accept the consequences of the waiver. A PRIVATE WAIVER must be signed by the landowner.
  - (5) SPECIAL CONDITION is a condition for the establishment of a SPECIAL USE.
  - (6) SPECIAL USE is a USE which may be permitted in a DISTRICT pursuant to, and in compliance with, procedures specified herein.
  - (7) WIND FARM: A unified development of WIND FARM TOWERS and all other necessary components including cabling, transformers, a common switching station, and maintenance and management facilities which are intended to produce electricity by conversion of wind energy and to deliver the electricity to the power grid. A WIND FARM is under a common ownership and operating control even though the individual WIND FARM TOWERS may be located on land that is leased from many different landowners. A WIND TURBINE TOWER or WIND TURBINE TOWERS that do not conform to the definitions of either a SMALL WIND TURBINE TOWER or a BIG WIND TURBINE TOWER shall by definition be considered a WIND FARM and may only be authorized as a WIND FARM.
  - (8) WIND FARM TOWER: A wind turbine nacelle and rotor and the supporting tower structure that are part of a WIND FARM development and intended to produce electricity for the power grid or any WIND TURBINE TOWER that does not conform to the definitions of either a SMALL WIND TURBINE TOWER or a BIG WIND TURBINE TOWER.
  - (9) WIND TOWER, TEST: A tower that is installed on a temporary basis not to exceed three years and that is intended for the sole purpose of collecting meteorological data regarding the wind.
- G. Section 9.1.11 requires that a Special Use Permit shall not be granted by the Zoning Board of Appeals unless the public hearing record and written application demonstrate the following:
- (1) That the Special Use is necessary for the public convenience at that location;
  - (2) That the Special Use is so designed, located, and proposed as to be operated so that it will not be injurious to the DISTRICT in which it shall be located or otherwise detrimental to the public welfare;



**AS APPROVED- RECOMMEND DENIAL**

Item 6.G. (continued)

- (3) That the Special Use conforms to the applicable regulations and standards of and preserves the essential character of the DISTRICT in which it shall be located, except where such regulations and standards are modified by Section 6.
  - (4) That the Special Use is in harmony with the general purpose and intent of this ordinance.
  - (5) That in the case of an existing NONCONFORMING USE, it will make such USE more compatible with its surroundings.
- H. Paragraph 9.1.11.D.2. states that in granting any SPECIAL USE permit, the BOARD may prescribe SPECIAL CONDITIONS as to appropriate conditions and safeguards in conformity with the Ordinance. Violation of such SPECIAL CONDITIONS when made a party of the terms under which the SPECIAL USE permit is granted, shall be deemed a violation of this Ordinance and punishable under this Ordinance.

***GENERALLY REGARDING WHETHER THE SPECIAL USE IS NECESSARY FOR THE PUBLIC CONVENIENCE AT THIS LOCATION***

7. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use is necessary for the public convenience at this location:
  - A. The Petitioner has testified on the application, **“The proposed use is necessary for public convenience at this location with its excellent wind resource, strong community support, parcels leased by landowners for wind development and proximity to transmission.”**
  - B. The State of Illinois has adopted a Renewable Portfolio Standard that established a goal of 25% of the State’s energy coming from renewable sources by the year 2025.
  - C. Invenergy representative Greg Leutchmann testified at the September 1, 2011, public hearing that based on wind conditions, land, layout, and maintenance the project estimates are that the annual output of the proposed wind farm will be between 38% and 44% of the full rated capacity of 48MW for the wind farm.

***GENERALLY REGARDING WHETHER THE SPECIAL USE WILL BE INJURIOUS TO THE DISTRICT OR OTHERWISE INJURIOUS TO THE PUBLIC WELFARE***

8. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use be designed, located, and operated so that it will not be injurious to the District in which it shall be located, or otherwise detrimental to the public welfare:
  - A. The Petitioner has testified on the application, **“The proposed land use will not be injurious to the District or otherwise detrimental to the public welfare as described in the Application and it will follow the local ordinance requirements.”** (Note that the

Item 8.A. (continued)

Application referred to is the 700 page *California Ridge Wind Energy Project Champaign County Special Use Permit Application* received July 1, 2011)

- B. Regarding surface drainage, see the discussion under item 9.
- C. Regarding the traffic conditions in the proposed WIND FARM the WIND FARM developer (Invenergy) is negotiating road use agreements with the County Engineer and also with the Compromise and Ogden Township Highway Commissioners. See the discussion under item 9.
- D. Regarding fire protection see the discussion under item 9.
- E. The subject property is not located within a Special Flood Hazard Area.
- F. Regarding outdoor lighting on the subject property, none appears to be indicated on the site plan received
- G. There is no wastewater treatment and disposal required for the proposed WIND FARM.
- J. Regarding parking, there is no required parking for the proposed WIND FARM.
- K. Regarding life safety considerations related to the proposed Special Use:
  - (1) Champaign County has not adopted a building code. Life safety considerations are considered to a limited extent in Champaign County land use regulation as follows:
    - (a) The Office of the State Fire Marshal has adopted the Code for Safety to Life from Fire in Buildings and Structures as published by the National Fire Protection Association (NFPA 101) 2000 edition, Life Safety Code, as the code for Fire Prevention and Safety as modified by the Fire Prevention and Safety Rules, 41 Ill. Adm Code 100, that applies to all localities in the State of Illinois.
    - (b) The Office of the State Fire Marshal is authorized to enforce the Fire Prevention and Safety Rules and the code for Fire Prevention and Safety and will inspect buildings based upon requests of state and local government, complaints from the public, or other reasons stated in the Fire Prevention and Safety Rules, subject to available resources.
    - (c) The Office of the State Fire Marshal currently provides a free building plan review process subject to available resources and subject to submission of plans prepared by a licensed architect, professional engineer, or professional designer that are accompanied by the proper Office of State Fire Marshal Plan Submittal Form.

**AS APPROVED- RECOMMEND DENIAL**

Item 8.K. (continued)

- (d) Compliance with the code for Fire Prevention and Safety is mandatory for all relevant structures anywhere in the State of Illinois whether or not the Office of the State Fire Marshal reviews the specific building plans.
  - (e) Compliance with the Office of the State Fire Marshal's code for Fire Prevention and Safety is not required as part of the review and approval of Zoning Use Permit Applications.
  - (f) The Illinois Environmental Barriers Act (IEBA) requires the submittal of a set of building plans and certification by a licensed architect that the specific construction complies with the Illinois Accessibility Code for all construction projects worth \$50,000 or more and requires that compliance with the Illinois Accessibility Code be verified for all Zoning Use Permit Applications for those aspects of the construction for which the Zoning Use Permit is required.
  - (g) The Illinois Accessibility Code incorporates building safety provisions very similar to those of the code for Fire Prevention and Safety.
  - (h) No part of the proposed special use permit for a WIND FARM will have to be accessible.
- L. Regarding whether or not the proposed Special Use will use any best prime farmland:
- (1) The Champaign County Zoning Ordinance and Land Resource Management Plan identify best prime farmland as farmland that has a Relative Value or Land Evaluation score of 85 or greater as identified in the Champaign County Land Evaluation and Site Assessment (LESA) System.
  - (2) The Champaign County Soil and Water Conservation District has analyzed the soils that will be used for the proposed WIND FARM and has determined the following:
    - (a) The actual wind turbine sites and access roads will use about 22 acres of farmland that has an average Land Evaluation (LE) of 81 and is not best prime farmland overall.
    - (b) If all areas likely to be disturbed are considered to consist of buffers of 40 feet for access roads and 150 feet for each turbine the total area increases to 118 acres and the LE increases to 82 but is still not best prime farmland on average.
  - (3) *The Natural Resource Report for the California Ridge Wind Farm Champaign County, Illinois* by the Champaign County Soil and Water Conservation District dated October 6, 2011, points out concerns about possible soil erosion at many of the proposed wind farm tower sites. A special condition has been proposed to

Item 8.L. (continued)

require a permanent soil erosion and sedimentation plan for all WIND FARM TOWER sites and access roads that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.

- M. Regarding concerns about possible affects on residential property values in the vicinity of the proposed WIND FARM, the Zoning Board of Appeals reviewed the following recent studies regard residential property values in proximity to wind farms:
- (1) The report *The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis* was published in December 2009 by Ernesto Orlando Lawrence Berkeley National Laboratory and is considered the best information available regarding property value impacts of wind farms. The full report is available free of charge as a download at <http://eetd.lbl.gov/EA/EMP> and was distributed to ZBA members. The Executive Summary and the published Powerpoint presentation were also included separately with the October 6, 2011, Supplemental Memorandum. The study can be summarized as follows:
    - (a) The study analyzed data from 7,459 home sales from 10 communities surrounding 24 wind power facilities across the United States. Slide 11 in the Powerpoint presentation illustrates where the study areas were located in the US. Note the Lee County, Illinois was one study area.
    - (b) Homes in the study were located from 800 feet to over 5 miles from the nearest wind energy facility and each home was visited by the researchers to determine the site specific data such as the degree to which the wind facility may have been visible at the time of sale.
    - (c) Data analyzed in this study included: sales data, parcel data, GIS data, view data, and vista data.
    - (d) The study classified the concerns about the possible impact of wind facilities on residential property value into the following three categories:
      - i. Area Stigma which is a concern that the area in the vicinity of a wind energy facility will look more developed and advertsely affect home values in that community even if no individual home has a view of wind turbines.
      - ii. Scenic Vista Stigma which is a concern that the view of a wind energy facility may have a detrimental impact on home value if the view from that home is otherwise scenic.

**AS APPROVED- RECOMMEND DENIAL**

Item 8.M.(1) (continued)

- iii. Nuisance Stigma which is a concern that nuisance factors that may occur in closer proximity to wind turbines (such as noise and shadow flicker) may have a unique and adverse affect on home values.
- (e) The study used a hedonic pricing model to analyze market data to assess the impact of proximity to a wind energy facility on property value. The hedonic model is not generally used in property appraisal but used to assesses the marginal affects of home or community characteristics on sales price.
  - (f) The study findings are summarized in the Conclusion to the Executive Summary as follows:
    - i. No evidence was found that home prices surrounding wind facilities are consistently, measurably, and significantly affected by either the view of wind facilities or the distance of the home to those facilities.
    - ii. The analysis cannot dismiss the possibility that individual homes or small numbers of homes have been or could be negatively impacted but if these impacts do exist they are either too small and/or too infrequent to result in any widespread, statistically observable impact.
- (2) At the October 6, 2011, public hearing Sherry Shildt who livest at 398 CR 2500N, Mahomet, in Newcomb Township, submitted a copy of the research report *Values in the Wind: A Hedonic Analysis of Wind Power Facilities* dated March 3, 2011, by Prof. Martin D. Heintzelman of Clarkson University and Carrie M. Tuttle. When later contacted by the Zoning Administrator, Prof. Heintzelman stated that the report had been accepted for future publication in a peer reviewed journal and sent the most recent copy of the report dated July 15, 2011. The most recent copy of the report has findings that are somewhat different than the March 3, 2011, copy submitted by Sherry Schildt. The study and the revised findings can be summarized as follows:
- (a) The study analyzed data from 11,331 residential and agricultural property transactions in three counties in northern New York which have six wind farms combined.
  - (b) A map is included that illustrates that two of the counties have half or more of their geographic areas inside of Adirondack Park and the third county has only a small portion of its area inside the Park. The report explains that “approximately 43% of Adirondack Park is publically owned and constitutionally protected to remain “forever wild” forest preserve.

Item 8.M.(2) (continued)

- (c) Parcels included in the study were those which were sold between the years 2000 – 2009. Of the 11,331 transactions only 461 of those transactions were for parcels within 3 miles to the nearest turbine. Some of the parcels were sold more than once. Within three miles, 142 parcels were sold at least twice.
  - (c) Parcel data, turbine locations, land cover data, sales data, lot size, and other relevant data were compiled using Geographic Information Systems (GIS) software. The parcels were mapped to determine the distance to the nearest turbine in order to estimate the nuisance effects of the turbines. Statistical software was also used to compile data.
  - (d) The study used a repeat sales fixed-effects hedonic analysis. This approach was used to estimate the “treatment” of effect of a parcel’s proximity to a wind turbine.
  - (f) The study findings are summarized in the Discussion section as follows:
    - i. In the two counties with the most geographic area inside Adirondack Park it was found that wind turbines typically had a negative impact on property values.
    - ii. In the third county that had only a small portion of its area inside Adirondack Park the study found no effect on property values because of wind turbines.
- N. See Section 12 for a summary of evidence regarding whether any requested waiver of standard conditions will be injurious to the District in which it shall be located, or otherwise detrimental to the public welfare.
- O. Other than as reviewed elsewhere in this Summary of Evidence, there is no evidence to suggest that the proposed Special Use will generate either nuisance conditions such as odor, noise, vibration, glare, heat, dust, electromagnetic fields or public safety hazards such as fire, explosion, or toxic materials release, that are in excess of those lawfully permitted and customarily associated with other uses permitted in the zoning district.

***GENERALLY REGARDING WHETHER THE SPECIAL USE CONFORMS TO APPLICABLE REGULATIONS AND STANDARDS AND PRESERVES THE ESSENTIAL CHARACTER OF THE DISTRICT***

9. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use conforms to all applicable regulations and standards and preserves the essential character of the District in which it shall be located, except where such regulations and standards are modified by Section 6 of the Ordinance:

**AS APPROVED- RECOMMEND DENIAL**

Item 9. (continued)

- A. The Petitioner has testified on the application, “**Reference Section 3.4; Section 4.1.1; and Appendix H of the Application.**” (Note that the Application referred to is the 700 page *California Ridge Wind Energy Project Champaign County Special Use Permit Application* received July 1, 2011)
- B. Regarding compliance with the *Zoning Ordinance*:
- (1) WIND FARM is authorized only by the County Board and only by Special Use Permit in the AG-1 Agriculture Zoning District.
  - (2) There is no required parking.
  - (3) Requirements for what must be included in the area of the WIND FARM Special Use Permit are in subparagraph 6.1.4 A.1. At this time the area of the WIND FARM Special Use Permit includes all of the relevant parcels of the participating landowners. A waiver of the standard condition of 6.1.4 A. 1.(e) that requires the special use permit area to include a minimum of 40 feet wide area for electrical lines has been requested and is discussed on p. 3-9 of the *California Ridge Wind Energy Project Champaign County Special Use Permit Application* received July 1, 2011, as follows (waiver #1):
    - (a) During construction California Ridge will encounter field conditions which occasionally require rerouting of collection systems amongst a property.
    - (b) Some relevant information will not be known until immediately before or during construction and will require adjustment and relocation of underground cable installations.
    - (c) Authorizing the requested waiver will allow adjustments up to until and during construction to ensure field conditions and landowner concerns are accounted for in the final wind farm design and construction.
    - (d) As proposed, the area of the WIND FARM Special Use Permit will be much larger than the minimum area intended by the requirements of 6.1.4A.1. and there is no waiver required.
  - (4) Subparagraph 6.1.4 A.2. identifies certain areas where a WIND FARM Special Use Permit shall not be located.
    - (a) Item 6.1.4 A.2.(a) requires a WIND FARM to be more than one and one half miles from an incorporated municipality with a zoning ordinance. The Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011, indicates that no part of the WIND FARM is proposed closer than 1.5 miles from the Village of Royal.

## Item 9.B.(4) (continued)

- (b) Item 6.1.4 A.2.(b) requires a wind farm to be a minimum of one mile from the CR District. The Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011, indicates that no part of the WIND FARM is proposed closer than 1.5 miles from the Village of Royal.
- (4) Paragraph 6.1.4 B. eliminates LOT AREA, AVERAGE LOT WIDTH, SETBACK, YARD, and LOT COVERAGE requirements from applying to a WIND FARM.
- (5) Paragraph 6.1.4 C. contains minimum separations for WIND FARM TOWERS from other STRUCTURES, BUILDINGS, and USES and provides for PRIVATE WAIVERS of minimum separations. The *Special Use Permit Application* received July 1, 2011, discussed the proposed separations on pages 3-8 and 3-9 and illustrated the proposed separations in Figure 3-5 Participating Properties and Champaign County Required Setbacks. The proposed WIND FARM complies with all minimum separations in paragraph 6.1.4 C. including the wind turbine manufacturer's recommendations.

Review of apparent WIND FARM TOWER locations by the Zoning Administrator indicates that in many locations WIND FARM TOWERS appear to be closer to adjacent participating properties than allowed by minimum separations. Minimum separations can be waived by means of PRIVATE WAIVERS. The only private waivers in the WIND FARM are the waivers agreed to by the PARTICIPATING landowners and those waivers have been documented and are in the chain of title of deed.

- (6) Paragraph 6.1.4 D. contains standard conditions for the design and installation of WIND FARM TOWERS. Compliance with paragraph 6.1.4 D. can be summarized as follows:
  - (a) Subparagraph 6.1.4 D. 1 (a) requires certificates of design compliance from Underwriters Laboratories ("UL") or equivalent third party. The *Special Use Permit Application* received July 1, 2011, did not include a certificate of design compliance. Invenergy representative Greg Leutchmann testified at the September 29, 2011, public hearing that the design certification would be from TUV NORD. The Supplemental Memorandum dated August 25, 2011, reviewed the required waiver of 6.1.4 D.1(a) and proposed a special condition to require this certification as a condition for a Zoning Compliance Certificate.
  - (b) Subparagraph 6.1.4 D. 1 (b) requires certification by an Illinois Professional Engineer or Illinois Licensed Structural Engineer that the foundation and tower design are within accepted standards. The *Special Use Permit Application* received July 1, 2011, discussed this requirement on pages 3-4



**AS APPROVED- RECOMMEND DENIAL**

Item 9.B.(6) (continued)

and 4-3. A special condition has been proposed to ensure compliance with this requirement

- (c) Subparagraph 6.1.4 D. 2. establishes minimum requirements for controls and brakes. The *Special Use Permit Application* received July 1, 2011, reviews controls and brakes on p. 4-2 and meets the requirements.
- (d) Subparagraph 6.1.4 D. 3. establishes minimum requirements for electrical components. The *Special Use Permit Application* received July 1, 2011, reviews electrical components on p. 4-1 and meets the requirements.
- (e) Subparagraph 6.1.4 D. 4. establishes a requirement for monopole construction. The *Special Use Permit Application* received July 1, 2011, reviews the proposed tower on p. 4-2 and illustrates the proposed tower on p. 4-4 and meets the requirement.
- (f) Subparagraph 6.1.4 D. 5. establishes a requirement for the total WIND FARM TOWER height (measured to the tip of the highest rotor blade) to be less than 500 feet. The *Special Use Permit Application* received July 1, 2011, reviewed the proposed tower height on p. 4-8 and it meets the requirement with a total height of 492 feet.
- (g) Subparagraph 6.1.4 D. 6. establishes a requirement for a white or gray or another non-reflective, unobtrusive color for WIND FARM TOWERS, turbine nacelles, and blades. As depicted on p. 3-7 and in Appendix A and explained on page 1 of Appendix B of the *Special Use Permit Application* received July 1, 2011, the proposal meets the requirement.
- (h) Subparagraph 6.1.4 D. 7. establishes a requirement for compliance with all Federal Aviation Administration (FAA) requirements. The *Special Use Permit Application* received July 1, 2011, explains on p. 5-13 that proposed WIND FARM will comply with FAA requirements.
- (i) Subparagraph 6.1.4 D. 8. requires warnings for all pad mounted transformers. The *Special Use Permit Application* received July 1, 2011, explains on p. 3-4 that each turbine transformer will have proper voltage warning signs.
- (j) Subparagraph 6.1.4 D. 9 requires wind farm towers to be protected by non-climbing devices 12 feet vertically from the base. The *Special Use Permit Application* received July 1, 2011, requested a waiver from this requirement on p. 4-1 and the waiver was reviewed in the Supplemental Memorandum dated August 25, 2011. The specific wording of 6.1.4 D.9

Item 9.B.(6) (continued)

requires "...devices such as fences at least six feet high with locking portals or anti-climbing devices 12 feet vertically from the base of the WIND FARM TOWER." (emphasis added) and the locking door on the outside of the smooth skinned monopole is a device that is similar so no waiver is required.

- (7) Paragraph 6.1.4 E. contains standard conditions to mitigate damage to farmland. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements and can be summarized as follows:
- (a) Subparagraph 6.1.4 E. 1. establishes a minimum depth of 4 feet for underground wiring or cabling and proposed compliance is established on p. 3-5 and p. 15 of Appendix I and in the Drainage Study (see Additional Considerations) at the back of Appendix I.
  - (b) Subparagraph 6.1.4 E. 2. establishes requirements for protection of agricultural drainage tile and proposed compliance is established on p. 29 of Appendix I and in the Drainage Study at the back of Appendix I.
  - (c) Subparagraph 6.1.4 E. 3. requires restoration for any damage to soil conservation practices and proposed compliance is established on the last few pages of the Drainage Study at the back of Appendix I.
  - (d) Subparagraph 6.1.4 E. 4. establishes requirements for topsoil replacement pursuant to any open trenching and proposed compliance is established in the Drainage Study (see Additional Considerations) at the back of Appendix I.
  - (e) Subparagraph 6.1.4 E. 5. establishes requirements for mitigation of soil compaction and rutting and proposed compliance is established in the Drainage Study (see Additional Considerations) at the back of Appendix I.
  - (f) Subparagraph 6.1.4 E. 6. establishes requirements for land leveling and proposed compliance is established in the Drainage Study (see Additional Considerations) at the back of Appendix I.
- (8) Paragraph 6.1.4 F. contains standard conditions for use of public streets. Paragraph 6.1.4F. requires the Applicant to enter into a signed Roadway Upgrade and Maintenance agreement approved by the County Engineer and State's Attorney and/or any relevant Township Highway Commissioner prior to the close of the public hearing for the use of public streets. Regarding this requirement:
- (a) Regarding the signed Roadway Upgrade and Maintenance agreement with Champaign County:

**AS APPROVED- RECOMMEND DENIAL**

Item 9.B.(8)(a) (continued)

- i.* Champaign County Engineer Jeff Blue testified at the September 8, 2011, public hearing that the County agreement is 99% complete but it needed to be reviewed by the Champaign County State's Attorney and that the County Engineer does not have authority to sign the agreement and the agreement would need to be signed by the County Board Chair following a resolution by the County Board authorizing signature but that he will recommend approval of the agreement when it is forwarded.
  - ii.* A Draft Champaign County-California Ridge Wind Roads Agreement was received October 5, 2011. The Draft County Roads Agreement complied with the requirements of 6.1.4 F. except that it was not yet signed by the County Board Chair. A waiver has been requested for the signature requirement.
  
- (b) Regarding the signed Roadway Upgrade and Maintenance agreements with the Compromise and Ogden Township Highway Commissioners:
  - i.* A letter regarding road use agreements was received on August 18, 2011, from Marvin Johnson, Compromise Township Highway Commissioner, and Greg Frerichs, Ogden Township Highway Commissioner. Among other statements in the letter, the letter stated that Road Commissioners have been discussing use of township roads for the proposed California Ridge Wind farm with various representatives of Invenery since the Spring of 2009; and the Road Commissioner asked the ZBA to adhere to the terms of the Zoning Ordinance while allowing them to fulfill their duties and responsibilities as Road Commissioners.
  - ii.* A letter regarding road use agreements was received on September 29, 2011 from Marvin Johnson, Compromise Township Highway Commissioner, and Greg Frerichs, Ogden Township Highway Commissioner. Among other statements in the letter, the letter stated that there had been more progress towards on the agreement in the past two weeks than there had been the past two years but a few issues still needed to be resolved and the Road Commissioners expected to be able to advise the ZBA at the next meeting that they have reached agreement with Invenergy.
  - iii.* As of the meeting on October 6, 2011, there was no signed Roadway Upgrade and Maintenance agreement approved by either the Compromise or Ogden Township Highway Commissioners.

## Item 9.B. (continued)

- (9) Paragraph 6.1.4 G. contains standard conditions for coordination with local fire protection districts. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements on pages 5-14 and 6-1.
- (10) Paragraph 6.1.4 H. contains standard conditions to eliminate electromagnetic interference. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements on pages 5-10 and 5-11.
- (11) Paragraph 6.1.4 I. contains standard conditions for the allowable noise level. It is not clear if the *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements and a waiver has been included as reviewed below:
- (a) Subparagraph 6.1.4 I. 1. requires the noise level from each WIND FARM TOWER or WIND FARM to be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910).
  - (b) In a letter approved at the October 29, 2009, ZBA meeting the ZBA had requested that the County Board approve the hiring of a noise consultant to provide a qualified evaluation of wind farm noise submittals. At the November 30, 2009, the Environment and Land Use Committee voted to not hire a noise consultant to evaluate the noise studies submitted by wind farm developers.
  - (c) Regarding the Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910):
    - i. 35 IAC 901.101 b) defines Class A land as all land used as specified by LBSC Codes 1000 through 1340, 2410 through 2455, 5200 through 5230, 5500, 6100 through 6145, 6222, 6510 through 6530, 6568 through 6600.
    - ii. Appendix B to 35 IAC 901 identifies LBSC Code 1100 as “Private Household” and as Class A under 35 IAC 901 Land Class.
    - iii. Appendix B to 35 IAC 901 does not contain the land use “wind farm” but does identify “alternative energy sources” under LBSC Code 4314 as Class C.

AS APPROVED- RECOMMEND DENIAL

Item 9.B. (11) (continued)

- (4) 35 IAC 901.102 regulates the emission of sound from any property line noise source located on any Class A,B, or C land to any receiving Class A land. One type of Class A land is land used for a private household.
  - (5) The most restrictive limits on sound are for nighttime hours and the limit from Class C land to Class A land are as follows:
    - 69 dB for the octave band center frequency 31.5 hertz
    - 67 dB for the octave band center frequency 63 hertz
    - 62 dB for the octave band center frequency 125 hertz
    - 54 dB for the octave band center frequency 250 hertz
    - 47 dB for the octave band center frequency 500 hertz
    - 41 dB for the octave band center frequency 1,000 hertz
    - 36 dB for the octave band center frequency 2,000 hertz
    - 32 dB for the octave band center frequency 4,000 hertz
    - 32 dB for the octave band center frequency 8,000 hertz
  - (6) At the September 1, 2011, public hearing Petitioner's Attorney Michael Blazer submitted a Memorandum that briefly reviewed and had as attachment the Illinois Pollution Control Board's (IPCB) decision in *Knox v. Turris Coal Co.* which involved noise complaints by Gladys and David Knox who apparently owned a total of 94 acres of which 90 acres were farmed and the other 4 acres included their dwelling and a pond. In the *Knox* case the IPCB confirmed that a farm dwelling is Class A land but the farmland was Class C and the pond was "unclassified".
  - (7) The ZBA was not swayed by the memorandum regarding the *Knox* case.
- d. Regarding the compliance of the proposed WIND FARM with the applicable IPCB noise regulations:
- (1) The consultant HDR Engineering, Inc. 701 Xenia Avenue South, Suite 600, Minneapolis, Minnesota 55416 performed the sound analysis that is reported in Appendix C of the Application. The sound analysis consisted of (1) collecting 24-hour ambient sound measurements at two locations (ML1 & ML2) in Champaign County that are representative of the project area and (2) a computer analysis of the anticipated wind farm noise level using the Cadna-A computer software.

## Item 9.B. (11) (continued)

- ii.* Regarding the existing ambient sound levels in the project area that are discussed on pages B-3 to B-9 of Appendix C of the Application:
- (i)* On p. B-3 it states the data was gathered during two 24-hour periods during the week of May 4, 2009, at two different locations in the project area.
- (ii)* Noise Monitoring Locations are indicated on Figure A-1 on page A-3 in Appendix C. Monitoring Location 1 (ML1) is indicated as being near the intersection of CR2500N and CR2600E in Compromise Township and on page B-3 the location is described as the front yard of a residence. Measuring Location 2 is at the southern boundary of the project area.
- (iii)* Figure B-1 on page B-5 of Appendix C illustrates the sound distribution at ML1 which is summarized on pages B-4 and B-5 as follows:
- The median sound levels at ML1 ranged from 33dBA to 41dBA and are indicated on Figure B-1 by triangles.
  - The triangles indicating the median sound levels on Figure B-1 are on vertical lines and the top of each line is the loudest 10% of that hour of sound and the bottom of each line is the quietest 10% of that hour.
  - On average the sound levels varied 15dB between the highest 10% and the lowest 10% and the wide variation in sound level during an hour indicates the presence of short duration or periodic loud events.
  - On p. B-3 it states that nighttime ambient sound levels were generally dominated by natural sources.
  - Page B-9 of the Application states that the existing ambient sound levels exceed three or more of the I.P.C.B. spectral noise limits during both daytime and nighttime and Table B-4 and B-5 indicate the I.P.C.B. spectral noise limits are exceeded at ML1 for nighttime sound levels for the 7 octave bands between 125 hertz and 8 kilohertz. Page B-7 states that the results are typical of those found in rural

Item 9.B. (11) (continued)

agricultural communities with high quality wind resources. The loudest nighttime ambient sound monitoring data is as follows:

- 67 dB and 56dB for locations ML1 and ML2 respectively, at the octave band center frequency 63 hertz
- 67 dB and 48dB for locations ML1 and ML2 respectively, for the octave band center frequency 125 hertz
- 58 dB and 43dB for locations ML1 and ML2 respectively, for the octave band center frequency 250 hertz
- 56 dB and 47 dB for locations ML1 and ML2 respectively, for the octave band center frequency 500 hertz
- 58 dB and 42dB for locations ML1 and ML2 respectively, for the octave band center frequency 1,000 hertz
- 53 dB and 42 dB for locations ML1 and ML2 respectively, for the octave band center frequency 2,000 hertz
- 44 dB and 39 dB for locations ML1 and ML2 respectively, for the octave band center frequency 4,000 hertz
- 35 dB and 32 dB for locations ML1 and ML2 respectively, for the octave band center frequency 8,000 hertz

(iv) In testimony at the September 1, 2011, public hearing Timothy Casey, Senior Environmental Scientist with HDR Engineering, Inc. testified that at each of the two monitoring locations 13 of the 24 hours of sound measurements exceeded the I.P.C.B. noise limits due to the sound of the wind blowing.

iii. Regarding the Cadna-A computer software that was utilized to model the noise results:

(i) Cadna-A computer software was proposed to be utilized by at least one of the prospective noise consultants who submitted proposals in response to the Champaign County RFP in October 2009 pursuant to the ZBA request for a noise consultant to review wind farm submittals.

Item 9.B. (11) (continued)

- (ii) Timothy Casey, Senior Environmental Scientist with HGR Engineering, Inc. testified at the September 1, 2011, public hearing that he has validated that Cadna-A results are in very close agreement to manual computations.
  
- iv. Timothy Casey, Senior Environmental Scientist with HDR Engineering, Inc. testified at the September 1, 2011, public hearing that HDR used very conservative assumptions in modeling the noise of the wind farm so that the computer model would overestimate noise levels, as follows:
  - (i) HDR imported a digital terrain file into the noise software so that the noise model is based on the actual three dimensional topography.
  - (ii) HDR picked the loudest noise emission of the wind turbine which is representative of a 31 miles per hour wind speed so that the computer model produced a one hour average noise based on a wind of 31 miles per hour which is unrealistic because the wind does not blow uniformly for one hour.
  - (iii) HDR assumed the wind blows from every direction and not just the predominant direction indicated in the meteorological data and that is unrealistic but results in noise levels that a little bit higher.
  - (iv) HDR input the site specific topography, locations of 260 houses and turbines, the loudest noise emission data for the GE turbine, and assumed a 31 mile per hour wind blowing in all directions uniformly for one hour and they found that the highest calculated noise level among the 260 homes complied with the daytime and nighttime noise limits.
  
- v. Table 4 in Appendix C of the Application states the wind turbine sound emissions data that were provided by General Electric, the turbine manufacturer. The data reported in Appendix C is reported as sound on the "A" scale and it is not clear how that relates to the applicable sound limits. As reported in Appendix C the data provided was the following:
  - 82.5 dBA for the octave band center frequency 31.5 hertz
  - 92.2 dBA for the octave band center frequency 63 hertz
  - 95.9 dBA for the octave band center frequency 125 hertz



**AS APPROVED- RECOMMEND DENIAL**

Item 9.B. (11) (continued)

- 95.2 dBA for the octave band center frequency 250 hertz
  - 95.5 dBA for the octave band center frequency 500 hertz
  - 99.9 dBA for the octave band center frequency 1,000 hertz
  - 99.3 dBA for the octave band center frequency 2,000 hertz
  - 90.5 dBA for the octave band center frequency 4,000 hertz
  - 71.6 dBA for the octave band center frequency 8,000 hertz
- vi. The discussion on p. 6 of Appendix C of the *Application* states “Project-related sound levels were calculated at 260 residences (the noise-sensitive receptors) in the Champaign County portion of the Project area.” The reported sound levels are apparently not at the property line.
- vii. Tables 5 and 6 in Appendix C summarize the daytime and nighttime sound analysis modeling results for the relevant octave bands for the residence with the highest noise level and compares those results to the maximum allowable sound level. The modeling results are lower than the maximum allowable sound level for all octave bands. The nighttime summary analysis shows that the highest sound level predicted is below the maximum allowable by at least 1 dB. The highest predicted nighttime sound levels are the following:
- 68 dB for the octave band center frequency 31.5 hertz
  - 64 dB for the octave band center frequency 63 hertz
  - 53 dB for the octave band center frequency 125 hertz
  - 43 dB for the octave band center frequency 250 hertz
  - 38 dB for the octave band center frequency 500 hertz
  - 40 dB for the octave band center frequency 1,000 hertz
  - 34 dB for the octave band center frequency 2,000 hertz
  - 15 dB for the octave band center frequency 4,000 hertz
  - 0 dB for the octave band center frequency 8,000 hertz
- viii. Note that the sound levels at both the 31.5 hertz and the 1,000 hertz octave band centers are only 1dB lower than the maximum allowable of 69dB and 41dB respectively and these two octave band centers appear to be critical for determining compliance. Recall that the wind turbine data provided by GE indicated that the turbine generates 82.5 dBA at the 31.5 hertz octave band center and 99.9dBA at the 1,000 hertz octave band center.

Item 9.B. (11) (continued)

- ix. Appendix C in Appendix C gives the noise modeling results on an average hourly basis (Leq) for all receptors and the maximum allowable sound level is never exceeded at any octave band. Regarding the results in Appendix C in Appendix C:
  - (i) I.P.C.B. noise regulations do not regulate Leq and it is not clear how Leq compares to the IPCB noise regulations.
  - (ii) The noise results submitted in the Application indicate that only 9 receptors are within approximately 3 decibels or less of the maximum noise limit and the other 251 receptors are below the limit by more than 3 decibels.
  
- x. Regarding overall compliance with the Ordinance requirement for allowable noise level:
  - (i) The I.P.C.B. noise standard is a property line noise standard that appears to apply to land and not just to buildings but there is disagreement about that and the I.P.C.B. noise regulations are not regularly enforced by any state agency and so there is no official to answer to that question. The discussion on p. 6 of Appendix C of the *Application* states “Project-related sound levels were calculated at 260 residences (the noise-sensitive receptors) in the Champaign County portion of the Project area.” Thus, the noise data provided is at the dwelling and not at the property line.
  - (ii) The petitioner submitted evidence indicating that for larger properties the I.P.C.B. noise regulations do not apply at the dwelling.
  - (iii) For residential properties less than 5 acres in area the difference between the sound level at the property line versus the sound level at the dwelling may not differ by much given the small distance involved but the data provided in the noise analysis is difficult to compare for the following reasons:

AS APPROVED- RECOMMEND DENIAL

Item 9.B. (11) (continued)

- The noise analysis does not give the location of any predicted sound level but it is likely that the greatest sound level occurs where the least separation is reported. However, many receptors are proximal to more than one turbine and that would affect sound level.
  - The noise analysis was conducted assuming a different turbine layout than the current site plan. The Parcel Status Summary Map with Setbacks California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011, indicates that turbines 20 and 21 have been relocated from their former positions new turbine 22.
  - The noise analysis uses sound levels based on both the A-weighted scale (dBA) and the nonweighted dB scale and it is not clear if direct comparisons between the two scales are valid.
  - Sound levels in the 8 octave band centers are also converted to hourly average noise levels ( $L_{eq}$ ) and it is not clear how that resulting average compares to the I.P.C.B. maximum noise level.
- (iv) The smallest separation between a dwelling and a proposed WIND FARM TOWER is between turbine # 22 and a dwelling on the west side of CR 2600E in Section 32 Range 14 West of Compromise Township that is indicated as a participating dwelling on the map Champaign County Non-Participating Dwelling Separation Summary received July 29, 2011. The separation of this participating dwelling is not dimensioned on the Champaign County Non-Participating Dwelling Separation Summary map but the separation of the non-participating dwelling to the east is dimensioned and proportional scaling indicates that the participating dwelling is proposed to be approximately 1,070 feet from turbine #22. In Appendix C of Appendix C this dwelling should be

Item 9.B. (11) (continued)

the receptor with the highest sound results which is receptor C\_R0046. Regarding the results reported for C\_R0046:

- The greatest reported nighttime sound level at the 31.5 hertz octave of 68 dB (67.6 before rounding) likely occurred at this location. The average reduction in sound level from the turbine data of 82.5dBA at 31.5 hertz to the predicted 68dB at the dwelling is about 1 dB per each 71.8 feet of distance.
- The greatest reported nighttime sound level at the 1,000 hertz octave of 40 dB (39.9 before rounding) also likely occurred at this location and if so the average reduction in sound level from the 99.9 dBA turbine data is about 1 dB per each 17.8 feet of distance.

- (v) It is difficult to generalize whether or not the noise analysis complies with the requirement as applied to smaller lots and a waiver is required.
- (vi) In a letter dated October 6, 2011, Tim Casey, HDR Acoustics Program Manager, clarified that the correct values for the A-weighted equivalent value of the I.P.C.B. noise limits are 61dBA for daytime and 51 dBA for nighttime.
- (vii) Comparing the existing ambient sound levels at ML1 with the highest predicted sound levels and the maximum allowed sound levels under the I.P.C.B, noise regulations reveals the following:
  - The highest predicted sound levels were based on very conservative assumptions and only occurred at 2 of the 260 receptors and are more than 3 dB greater than (and therefore distinguishable from) the median ambient sound level during every hour of the day.

**AS APPROVED- RECOMMEND DENIAL**

Item 9.B. (11) (continued)

- The highest predicted sound levels are more than 6dB greater (an apparent doubling) than the median ambient sound level during 13 hours of the day. This is only true for the two dwellings with the highest predicted sound levels.
  - The highest 10% of short duration or periodic loud events captured in the ambient noise study exceed the highest predicted sound levels during approximately 18 hours of the day.
  - In general, higher sound levels are predicted for the 49 dwellings located in and around the area of the proposed special use permit as compared to the sound levels predicted for the remaining 211 dwellings in the noise study.
- (12) Paragraph 6.1.4 J. contains standard conditions for endangered species consultation. Regarding compliance with 6.1.4 J.:
- (a) Paragraph 6.1.4 J. contains standard conditions for endangered species consultation and requires submission of a copy of the Agency Action Report from the Endangered Species Program of the Illinois Department of Natural Resources.
  - (b) See the August 25, 2011, Supplemental Memorandum for a general discussion and requested a waiver regarding the Agency Action Report.
  - (c) In a July 13, 2011, email to John Hall, Keith Shank, Division of Ecosystems and Environment, Illinois Department of Natural Resources, stated as follows:
    - i. His letter to Champaign County dated September 21, 2009, which was identical to the letter dated December 4, 2009, would substitute for an Agency Action Report and the consultation was not out of date but that conditions had changed regarding the Indiana Bat and the Mudpuppy Salamander and an updated consultation was necessitated.
    - ii. Consultation is technically not complete until the authorizing agency (Champaign County) stated its response to the IDNR recommendations.

Item 9.B. (12) (continued)

- (d) A second letter from Keith M. Shank regarding an additional consultation and Endangered Species Consultation Program Natural Heritage Database Review #1002516 dated August 18, 2011, states as follows:
- i. The Department recommends Invenergy undertake mist-netting and telemetry surveys in the vicinity of the project area to better document the numbers and relative abundances of bat species occurring in the area, placing an emphasis on the Indiana Bat and its seasonal movements.
  - ii. The Department recommends the County require at least one post-construction fall migration season bat mortality study to document levels of bat mortality resulting from the project's operation.
  - iii. Champaign County must notify the Department of its decision regarding this recommendation and which of the following the County will require:
    - (i) Proceed with the action as originally proposed; or
    - (ii) Require the action to be modified per Department recommendations (please specific which measures if not all will be required); or
    - iii. Forgo the action.
- (e) Regarding the IDNR recommendations dated August 18, 2011:
- i. Regarding the second part of the IDNR recommendation dated August 18, 2011, recommending post-construction mortality studies, post-construction mortality studies are a requirement of the Ordinance and the discussion on pages 5-23 and 5-24 of the *Special Use Permit Application* received July 1, 2011, appears to be consistent with the Ordinance.
  - ii. Regarding the first part of the IDNR recommendation dated August 18, 2011, recommending mist-netting and telemetry surveys to better document the numbers and relative abundances of bat species occurring in the area, placing an emphasis on the Indiana Bat and its seasonal movements:
    - (i) In an email dated August 23, 2011, Keith Shank of the IDNR stated that Invenergy has performed the the Blackball Mine Emergence Study to evaluate the movement of reproductive female Indiana bats but that study doesn't do anything to quantify the risk to or from Indiana Bats roosting along the Middle Fork.

AS APPROVED- RECOMMEND DENIAL

Item 9.B. (12) (continued)

- (ii) In the email dated August 23 ,2011, Keith Shank of the IDNR noted that IDNR recommendations are advisory and Champaign County may proceed as seems best to it.
  
- (13) Paragraph 6.1.4 K. contains standard conditions for historic and archaeological resources review. The *Special Use Permit Application* received July 1, 2011, demonstrated substantive compliance with these requirements as follows:
  - (a) By consulting with the Illinois Historic Preservation Agency as evidenced by letters dated March 4, 2009, and March 11, 2010, from Anne Haaker, Deputy State Historic Preservation Officer.
  
  - (b) By proposing to do conduct both a Phase I archaeological survey and an architectural survey of all structures within the Project Area and submitting the results to the Illinois Historic Preservation Agency as stated on pages 5-39 and 5-40 of the *Application*.
  
  - (c) In a phone call on September 19, 2011, Mr. Joseph S. Phillippe, Chief Archaeologist of the Illinois Historic Preservation Agency, stated to the Zoning Administrator that the California Ridge Wind Farm in Champaign County has complied with all recommendations of the Illinois Historic Preservation Agency.
  
- (14) Paragraph 6.1.4 L. contains standard conditions for acceptable wildlife impacts from WIND FARM construction and ongoing operation of the WIND FARM. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements as follows:
  - (a) Subparagraph 6.1.4 L. 1. establishes a requirement that the WIND FARM shall be located, designed, constructed, and operated so as to avoid and if necessary mitigate the impacts to wildlife to a sustainable level of mortality. Proposed compliance is established as follows:
    - i. On p. 15 of Appendix D when it states that Indiana bats are not likely to be roosting, foraging, or migrating within the Project planning area
  
    - ii. As summarized in Table 8 in Appendix E Biological Screening Report.
  
    - iii. As summarized in the Executive Summary and the Conclusion of Appendix F Wildlife Baseline Studies for the California Ridge Wind Farm Final Report.
  
    - iv. As reviewed and proposed on pages 5-18 through 5-39 of the *Special Use Permit Application* received July 1, 2011.

AS APPROVED- RECOMMEND DENIAL

Item 9.B. (12) (continued)

- ii.* In the email dated August 23, 2011, Keith Shank of the IDNR noted that IDNR recommendations are advisory and Champaign County may proceed as seems best to it.
  
- (13) Paragraph 6.1.4 K. contains standard conditions for historic and archaeological resources review. The *Special Use Permit Application* received July 1, 2011, demonstrated substantive compliance with these requirements as follows:
  - (a) By consulting with the Illinois Historic Preservation Agency as evidenced by letters dated March 4, 2009, and March 11, 2010, from Anne Haaker, Deputy State Historic Preservation Officer.
  - (b) By proposing to do conduct both a Phase I archaeological survey and an architectural survey of all structures within the Project Area and submitting the results to the Illinois Historic Preservation Agency as stated on pages 5-39 and 5-40 of the *Application*.
  - (c) In a phone call on September 19, 2011, Mr. Joseph S. Phillippe, Chief Archaeologist of the Illinois Historic Preservation Agency, stated to the Zoning Administrator that the California Ridge Wind Farm in Champaign County has complied with all recommendations of the Illinois Historic Preservation Agency.
  
- (14) Paragraph 6.1.4 L. contains standard conditions for acceptable wildlife impacts from WIND FARM construction and ongoing operation of the WIND FARM. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements as follows:
  - (a) Subparagraph 6.1.4 L. 1. establishes a requirement that the WIND FARM shall be located, designed, constructed, and operated so as to avoid and if necessary mitigate the impacts to wildlife to a sustainable level of mortality. Proposed compliance is established as follows:
    - i.* On p. 15 of Appendix D when it states that Indiana bats are not likely to be roosting, foraging, or migrating within the Project planning area
    - ii.* As summarized in Table 8 in Appendix E Biological Screening Report.
    - iii.* As summarized in the Executive Summary and the Conclusion of Appendix F Wildlife Baseline Studies for the California Ridge Wind Farm Final Report.
    - iv.* As reviewed and proposed on pages 5-18 through 5-39 of the *Special Use Permit Application* received July 1, 2011.



Item 9.B. (14) (continued)

- (b) Subparagraph 6.1.4 L. 2. establishes a requirement that a qualified professional, such as an ornithologist or wildlife biologist, shall conduct a pre-construction site risk assessment study to estimate the impacts of the construction and operation of the proposed WIND FARM on birds and bats. Proposed compliance is established as follows:
    - i. As summarized in the Chiropteran Risk Assessment Summary of Appendix D Chiropteran Risk Assessment: Proposed California Ridge Wind Energy Generation Facility.
    - ii. As summarized in the Executive Summary and the Conclusion of Appendix F Wildlife Baseline Studies for the California Ridge Wind Farm Final Report.
    - iii. As summarized in the Executive Summary and the Summary of Appendix L Investigations of Bat Activity at the Proposed California Ridge Wind Energy Generation Facility.
    - iv. As reviewed and proposed on pages 5-18 through 5-39 of the *Special Use Permit Application* received July 1, 2011.
  - (c) Subparagraph 6.1.4 L. 3. establishes a requirement that a qualified professional, such as an ornithologist or wildlife biologist, shall also conduct a post-construction mortality monitoring study to quantify the mortality impacts of the WIND FARM on birds and bats. Proposed compliance is established as reviewed and proposed on pages 5-18 through 5-39 of the *Special Use Permit Application* received July 1, 2011, particularly pages 5-22 through 5-24 wherein post-construction monitoring is discussed.
- (15) Paragraph 6.1.4 M. contains standard conditions for shadow flicker caused by the rotors of the WIND FARM TOWERS. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements as follows:
- (a) Appendix G of the Application is a shadow flicker assessment prepared using the WindPro software package. Figure 3 Predicted Shadow Flicker maps the proposed turbines and existing receptors and the predicted hours per year of shadow flicker in the project area.
  - (b) As reviewed on pages 5-3 and 5-5 including Figure 5-1 illustrating the predicted shadow flicker for one turbine over the course of a year. As stated on p. 5-4 and illustrated in Figure 3 in Appendix G, no home experiences more than 30 hours of shadow flicker over the course of a year.

AS APPROVED- RECOMMEND DENIAL

Item 9.B. (continued)

- (16) Paragraph 6.1.4 N. contains standard conditions for the minimum liability insurance for the WIND FARM. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements in section 4.3.3 on page 4-9 of the *Application* although it should be clarified that the WIND FARM will be in compliance with the minimum liability insurance requirements even after construction ceases.
- (17) Paragraph 6.1.4 O. contains other standard conditions for operation of the WIND FARM. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements in section 4.3.5 on page 4-9 of the *Application*.
- (18) Paragraph 6.1.4 P. contains standard conditions for a decommissioning plan and site reclamation agreement for the WIND FARM and modifies the basic site reclamation requirements in paragraph 6.1.1 A. Compliance with paragraph 6.1.4 P. can be summarized as follows:
  - (a) Regarding the proposed Reclamation Agreement:
    - i. No Reclamation Agreement was submitted with the Application on July 1, 2011.
    - ii. A Draft Reclamation Agreement was received on August 30, 2011, and forwarded to the State's Attorney for review.
    - iii. The State's Attorney review comments were emailed to the petitioner on September 23, 2011.
    - iv. A revised Reclamation Agreement was received on September 28, 2011.
    - v. A revised Reclamation Agreement was received on October 6, 2011, with a Revised Base Decommissioning Cost Estimate and responses to questions about the decommissioning cost estimate.
    - vi. Further revised Reclamation Agreements were received on October 13, 2011; October 18, 2011; October 19, 2011; and October 20, 2011. There are no substantive differences between the Drafts received on 10/19/11 and 10/20/11.
    - vii. The current proposed Reclamation Agreement was received on October 20, 2011. The compliance with the Ordinance requirements are reviewed below and an overall summary is provided at the end of this part.

Item 9.B. (18) (continued)

- (b) Subparagraph 6.1.4 P.1. of the Ordinance requires a signed site Reclamation Agreement conforming to the requirements of paragraph 6.1.1 A. of the Ordinance and the remainder of 6.1.4 P. of the Ordinance. Compliance with the requirements of paragraph 6.1.1 A. of the Ordinance can be summarized as follows:
- i.* Subparagraph 6.1.1A.1. of the Ordinance requires that the Reclamation Agreement shall be binding upon all successors of title to the land. The Reclamation Agreement received on 10/20/11 and the contracts between California Ridge Wind Energy LLC and the landowners firmly binds the landowners to the County.
  - ii.* Subparagraph 6.1.1A.2. of the Ordinance requires that each landowner shall record a covenant incorporating the provisions of the Reclamation Agreement on the deed of the lot. The recorded easement between California Ridge Wind Energy LLC and each landowner fulfills that requirement.
  - iii.* Subparagraph 6.1.1A.3. of the Ordinance requires separate cost estimates provided by an Illinois Licensed Professional Engineer for removal of above-ground and below-ground portions as identified in subparagraph 6.1.1 A. 4. of the Ordinance that are subject to approval of the Board. Appendix B of the petitioner's Application contains cost estimates that are provided by an Illinois Licensed Professional Engineer and a Revised Base Decommissioning Cost Estimate was received on 10/06/11 with responses to questions about the decommissioning cost estimate. Regarding the revised decommissioning cost estimates received on 10/06/11:
    - (i)* Construction management costs are likely to be incurred by the County should the County ever undertake decommissioning. The revised Base Decommissioning Cost Estimate received on 10/06/11 includes costs for overhead, management, and mobilization.
    - (ii)* The cost for removal of the concrete foundation to a depth of 54 inches has been included which exceeds what is required by many Illinois counties.
    - (iii)* The cost for the disposal of the WIND TURBINE blades has been included.

**AS APPROVED- RECOMMEND DENIAL**

Item 9.B. (18) (continued)

(iv) The Decommissioning Plan states that the 2011 cost of erecting a 1.6 MW 100 meter turbine tower, hub, nacelle, and blades is approximately \$98,000 and therefore uses \$98,000 for the cost of removal and another \$31,000 for transport of the salvage unit for a total of \$129,000 per turbine. The Revised Base Decommissioning Cost Estimate received on 10/06/11 divides the \$129,000 into more detail regarding the costs of disassembly, deconstruction, demolition, and transport. The cost for public road repairs was reduced to \$300,000 from the original \$750,000 and footnote 1 explains that road repairs should be minor given the conditions of roads and the fact that the bottom portion of the foundation (concrete) is the majority of the weight associated with road upgrades. The November 2009 Decommissioning Plan for the Ripley-Westfield Wind Farm in Chautauqua County, New York included a cost of \$80,000 for removal of 1.5 MW 80 meter turbine towers by Barnhart Crane & Rigging Company and assumed a dismantle approach to scrapping rather than a demolition approach. A letter from the Barnhart Company included in the Decommissioning Plan stated that a dismantle and scrap project should be "significantly less expensive" than installation and that a demolition approach to removal might have even lower costs. The independent engineer replied as follows to an inquiry from the Zoning Administrator regarding the cost for turbine removal:

"It is envisioned that the turbine would be deconstructed and hauled to a marshaling yard (10-15 acre area) that is nearby. This is similar to erecting the units but in reverse. Actual costs will depend on the methods used. The blades would be taken to the marshaling yard and broken down into smaller pieces able to be hauled in smaller trucks to the landfill."

(v) The Draft Reclamation Agreement uses a scrap value for steel of \$323 per ton that is the 5-year average as reported by [www.Steelonthenet.com](http://www.Steelonthenet.com) and that is lower than the scrap value estimated in Appendix B of the petitioner's Application. Champaign County steel recyclers are currently quoting approximately \$250 per ton for structural steel that is in proper sizes for recycling. The independent engineer replied as follows to an inquiry from the Zoning Administrator regarding the difference between the scrap

Item 9.B. (18) (continued)

values included in the decommissioning cost versus scrap values in Champaign County:

“Chicago mills are quoting heavy melt between \$415 and \$420 per ton on September 9, 2011. We can’t speak to what local recyclers are paying since we haven’t seen a quote with them or discussed with them. Are they paying true scrap price or are they quoting heavy melt price? Also, the price would be a result of negotiation on a project and would most likely be bid to multiple scrap recyclers (local and beyond). A demolition contractor would only utilize a local recycler if they would be getting a price that made economic sense for them. For the scale and amount of high grade structural steel that is available from this project, a higher price than what is quoted for Champaign County would be achievable. \$323 per ton is reasonable and the reclamation agreement addresses that the 5-year average can be revised based upon an engineer’s judgement.”

- (vi) Footnotes 3 and 4 indicate that the blades and nacelle cover would be transported to a local landfill in the Danville area and recyclable materials would be transported in smaller trucks to steel mills along the Mississippi or East Chicago and truck size will be limited by the roadway load limits in place at the time of decommissioning.
  - (vii) Footnote 6 indicates that the scrap value for copper that is used is the 5-year average price from USGS.
- iv. Subparagraph 6.1.1A.5. of the Ordinance requires submission of an irrevocable letter of credit in the amount of 150% of the cost estimated required by 6.1.1A.3. and subparagraph 6.1.4 P.4.a. of the Ordinance increases that to 210%. As reviewed below the Draft Reclamation Agreement received on 10/20/11 is compliant with 6.1.4 P.4.a. and is therefore compliant with 6.1.1 A. 5. of the Ordinance if approved by the Board.

AS APPROVED- RECOMMEND DENIAL

Item 9.B. (18) (continued)

- v. Subparagraph 6.1.1A.6. of the Ordinance establishes a time period prior to the expiration of the irrevocable letter of credit during which the Zoning Administrator shall contact the landowner regarding the intent to renew the letter of credit and the landowner shall reply within a certain amount of time. Paragraph 12 of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.1A.6. of the Ordinance.
- vi. Subparagraph 6.1.1A.7. of the Ordinance establishes 4 factors to be considered in determining if a NON-ADAPTABLE structure (WIND FARM TOWER in this instance) is abandoned in place and 6.1.1 A.9. of the Ordinance establishes 7 conditions when the Zoning Administrator may draw upon the letter of credit and jointly these 11 circumstances comprise when the Zoning Administrator may draw upon the letter of credit. Paragraph (9) of the Draft Reclamation Agreement received on 10/20/11 complies with these 11 circumstances which are as follows (Note that the definition of “abandoned” in the Draft Reclamation Agreement also applies):
- (i) Subparagraph 6.1.1A.7. of the Ordinance establishes the following factors to be considered in making a determination that a NON-ADAPTABLE structure is abandoned in place and these factors include, but are not limited to the following:
- the nature and frequency of use as set forth in the application for SPECIAL USE;
  - the current nature and frequency of use;
  - whether the NON-ADAPTABLE STRUCTURE has become a public nuisance, or otherwise poses a risk of harm to the public health or safety;
  - whether the NON-ADAPTABLE STRUCUTURE has been maintained in a manner which allows it to be used for its intended purpose, with no greater effects on surrounding properties and the public as a whole than was originally intended.
- (ii) Subparagraph 6.1.1A.9. of the Ordinance establishes the following conditions when the Zoning Administrator may draw upon the letter of credit:
- no response is received from the land owner within thirty (30) days from initial notification by the Zoning Administrator;

Item 9.B. (18) (continued)

- the land owner does not enter, or breaches any term of a written agreement with the COUNTY to remove said NON-ADAPTABLE STRUCTURE as provided in Section 6.1.1C.8. (should be 6.1.1A.8.)of the Ordinance;
- any breach or performance failure of any provision of the reclamation agreement;
- the owner of record has filed a bankruptcy petition, or compromised the COUNTY's interest or the letter of credit in any way not specifically allowed by the reclamation agreement;
- a court of law has made a finding that a NON-ADAPTABLE STRUCTURE constitutes a public nuisance;
- the owner of record has failed to replace an expiring letter of credit within the deadlines set forth in Section 6.1.1C6 of the Ordinance; or
- any other conditions to which the COUNTY and the land owner mutually agree, as set forth in the reclamation agreement.

(iii) Subparagraph 6.1.1A.8. of the Ordinance requires the Zoning Administrator to notify the owner prior to drawing on the performance guarantee. Paragraph (7) of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.1A.8 of the Ordinance.

(iv) Subparagraph 6.1.1A.10. of the Ordinance requires the covenant to be removed from the property within 45 days of the site being restored. Paragraph (9)(e) Draft Reclamation Agreement received on 10/20/11 provides that the special use permit shall expire after the site has been restored but it is not clear when or if the recorded easement between the landowner and California Ridge Wind Energy LLC ever expires.

(v) Subparagraph 6.1.1A.11. of the Ordinance requires the balance of any proceeds remaining after the site has been reclaimed to be returned to the issuer of the credit. Paragraph (9)(e) of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.1A.11 of the Ordinance.

**AS APPROVED- RECOMMEND DENIAL**

Item 9.B. (18) (continued)

- (vi) Subparagraph 6.1.1A.12. of the Ordinance requires a new wind farm owner of record to submit a new irrevocable letter of credit prior to transfer of title and the release of the credit posted by the previous owner thereafter. Paragraph (11) of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.1A.12 of the Ordinance.
  
- (c) Subparagraph 6.1.4 P. 2. of the Ordinance requires that in addition to the costs listed in subparagraph 6.1.1 A. 4. of the Ordinance, the Reclamation Agreement shall also include provisions for anticipated repairs to any public STREET used for the purpose of reclamation of the WIND FARM and all costs related to removal of access driveways. The costs reported in the Decommissioning Report in Appendix B of the petitioner's Application does not include the costs for any street repairs but does include the cost of removal of access driveways. The Revised Base Decommissioning Cost Estimate received 10/06/11 attached to the Draft Reclamation Agreement includes a street repair cost of \$10,000 per turbine which is \$300,000 for the entire wind farm. The reduction is explained in footnote 1 of the Revised Base Decommissioning Cost Estimate as being related to the pre-construction work to upgrade the public roads and the fact that the majority of the weight associated with road upgrades is to accommodate concrete trucks for the foundation most of which will remain in place after decommissioning.
  
- (d) Subparagraph 6.1.4 P. 3. of the Ordinance requires the Site Reclamation Agreement to also include the following:
  - i. Subparagraph 6.1.4 P.3.(a) of the Ordinance requires a stipulation that the applicant shall notify the GOVERNING BODY by certified mail of the commencement of a voluntary or involuntary bankruptcy proceeding, naming the applicant as debtor, within ten days of commencement of the proceeding. Paragraph (16)(a) of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.4 P.3(a) of the Ordinance.
  
  - ii. Subparagraph 6.1.4 P.3.(b) of the Ordinance requires a stipulation that the Applicant shall agree that the sale, assignment in fact or at law, or such other transfer of Applicant's financial interest in the WIND FARM shall in no way affect or change Applicant's obligation to continue to comply with the terms of this Agreement. Any successor or assignee shall assume the terms, covenants and obligations of this Agreement and agrees to assume all reclamation liability and responsibility for the WIND FARM. Paragraph (16)(b)



Item 9.B. (18) (continued)

- of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.4 P.3(b) of the Ordinance.
- iii.* Subparagraph 6.1.4 P.3.(c) of the Ordinance requires authorization for the GOVERNING BODY and its authorized representatives for right of entry onto the WIND FARM premises for the purpose of inspecting the methods of reclamation or for performing actual reclamation if necessary. Paragraph (16)(c) of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.4 P.3.(c) of the Ordinance.
  - iv.* Subparagraph 6.1.4 P.3.(d) of the Ordinance requires a standard choice-of-law provision stating that the agreement is controlled by Illinois law. Paragraph (16)(d) of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.4 P.3.(d) of the Ordinance.
  - v.* Subparagraph 6.1.4 P.3.(e) of the Ordinance requires a standard indemnification clause that indemnifies the county with respect to any and all liability arising out of the agreement. Paragraph (17)(e) of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.4 P.3.(e) of the Ordinance.
  - vi.* Subparagraph 6.1.4 P.3.(f) of the Ordinance requires a standard severability provision. Paragraph (16)(e) of the Draft Reclamation Agreement received on 10/20/11 complies with 6.1.4 P.3.(f) of the Ordinance.
- (e) Subparagraph 6.1.4 P. 4. of the Ordinance requires the amount of the irrevocable letter of credit required in paragraph 6.1.1 A. 5. of the Ordinance to be as follows:
- i.* Subparagraph 6.1.4 P.4.(a) of the Ordinance requires at the time of approval the amount of the irrevocable letter of credit shall be 210% of an independent engineer's cost estimate to complete the work described in Section 6.1.1 A. 4. a. of the Ordinance or less if specifically authorized by the Board. The GOVERNING BODY has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits. The Draft Reclamation Agreement received on 10/20/11 proposes a letter of credit that is 210% of the cost estimate but includes salvage value and so must be specifically authorized by the Board.

**AS APPROVED- RECOMMEND DENIAL**

Item 9.B. (18) (continued)

- ii.* Subparagraph 6.1.4 P.4.(a) of the Ordinance also requires that the GOVERNING BODY (County Board) has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits. In paragraph (4)(b) of the Draft Reclamation Agreement received on 10/20/11 the provision for multiple letters of credit has been stricken which indicates that the letter of credit will not be protected for any amount beyond the FDIC limit which at this time is \$250,000.
- iii.* Subparagraph 6.1.4 P.4.(b) of the Ordinance requires the applicant or WIND FARM owner to gradually pay down the value of the irrevocable letter of credit by placing cash deposits in an escrow account over the first 13 years of the WIND FARM operation as follows:

  - (i)* Subparagraph 6.1.4 P.4.(b)(4) of the Ordinance requires the applicant or WIND FARM owner to make annual deposits to the escrow account over a 12 year period and shall simultaneously provide a replacement irrevocable letter of credit that is reduced accordingly. Paragraph (4)(b) of the Draft Reclamation Agreement received on 10/20/11 is in compliance.
  - (ii)* Subparagraph 6.1.4 P.4.(b)(5) of the Ordinance requires at all times the total combined value of the irrevocable letter of credit and the escrow account to be increased annually as necessary to reflect actual rates of inflation over the life span of the WIND FARM and the amount shall be equal to or exceed the following:

    - the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the WIND FARM was approved; plus
    - an amount for any future years left in the anticipated life span of the WIND FARM at an assumed minimum rate of inflation of 3% per year.
- iv.* Paragraph (4)(d) of the Draft Reclamation Agreement received on 10/20/11 requires that the Financial Assurance shall be adjusted every third year for the first 12 years and every second year thereafter so that the Decommissioning Expenses reflect any change in the Consumer price Index.

## Item 9.B. (18) (continued)

- v. Subparagraph 6.1.4 P.4.(b)(1) of the Ordinance requires that the applicant or WIND FARM owner and the GOVERNING BODY (County Board) shall agree on a mutually acceptable financial institution at which an escrow account shall be established. The Draft Reclamation Agreement received on 10/20/11 does not provide for a mutually acceptable financial institution but no waiver has been requested.
- vi. Subparagraph 6.1.4 P.4.(b)(7) of the Ordinance requires that in order to provide funding for decommissioning at the time of decommissioning, the WIND FARM applicant or WIND FARM owner may exchange a new irrevocable letter of credit in an amount equal to the amount in the escrow account in exchange for the GOVERNING BODY agreeing to a release of the full amount of the escrow account. This requirement relates to what may be authorized and is not a requirement that must be in the Reclamation Agreement.
- vii. Subparagraph 6.1.4 P.4.(b)(3) of the Ordinance requires the applicant or WIND FARM owner shall grant perfected security in the escrow account by use of a control agreement establishing the County as an owner of record, pursuant to the Secured Transactions Article of the Uniform Commercial Code, 810 ILCS 9/101 et seq. Paragraph (4)(c) of the Draft Reclamation Agreement received on 10/20/11 appears to conform to the requirement of 6.1.4 P.4.(b)(3)
- viii. The Draft Reclamation Agreement received on 10/20/11 complies with the other requirements of subparagraph 6.1.4 P.4.(b) of the Ordinance that are as follows:
  - (i) The GOVERNING BODY shall be the beneficiary of the escrow account for the purpose of the reclamation of the WIND FARM in the event that the WIND FARM owner is incapable of decommissioning the WIND FARM, as authorized in paragraph (9)(b) of the Draft Reclamation Agreement received on 10/20/11.
  - (ii) Any interest accrued on the escrow account that is over and above the total value required by subparagraph 6.1.4 P. 3. (b) (4) of the Ordinance shall go to the WIND FARM owner, as authorized in paragraph (4)(e)(vii) of the Draft Reclamation Agreement received on 10/20/11.

**AS APPROVED- RECOMMEND DENIAL**

Item 9.B. (18) (continued)

- (f) The Draft Reclamation Agreement received on 10/20/11 also complies with subparagraph 6.1.4 P.5. of the Ordinance that requires that in addition to the conditions listed in subparagraph 6.1.1 A. 9. the Zoning Administrator may also draw on the funds for the following reasons:
- i.* In the event that any wind turbine or component thereof ceases to be functional for more than six consecutive months and the Owner is not diligently repairing such wind turbine or component.
  - ii.* In the event that the Owner declares any wind turbine or other component to be functionally obsolete for tax purposes.
- (g) Subparagraph 6.1.4 P.6. of the Ordinance requires that the Site Reclamation Agreement shall be included as a condition of approval by the BOARD and the signed and executed Site Reclamation Agreement including the irrevocable letter of credit and evidence of the escrow account must be submitted to the Zoning Administrator prior to any Zoning Use Permit approval. This requirement does not have to be incorporated into the Reclamation Agreement but has been included as a special condition of approval.
- (h) The assessment of compliance with the Ordinance requirements can be summarized as follows:
- i.* Subparagraph 6.1.1A.3. of the Ordinance requires the Board to approve the cost estimates provided by an Illinois Licensed Professional Engineer. The costs indicated in the Base Decommissioning Cost Estimate received 10/20/11 should be identified in a special condition regarding the Reclamation Agreement.
  - ii.* The Draft Reclamation Agreement received on 10/20/11 does not propose a specific amount for the letter of credit but the amount is based on the Base Decommissioning Cost Estimate that is Attachment A to the Draft Reclamation Agreement.
  - iii.* The Draft Reclamation Agreement received on 10/20/11 does not provide for multiple letters of credit based on the regulations governing federal insurance for deposits as 6.1.4 P.4.(a) of the Ordinance gives the County Board the right to require. If the County Board would prefer to require multiple letters of credit based on the regulations governing federal insurance for deposits and the if the petitioner refuses to revise the Draft Reclamation Agreement received on 10/20/11 in that way a waiver will be required but no waiver of 6.1.4 P.4.(a) was included in the legal advertisement. The

Item 9.B. (18) (continued)

Board should include some mention of this Ordinance requirement in a special condition regarding the Reclamation Agreement.

- iv.* Subparagraph 6.1.4 P.4.(b)(1) of the Ordinance requires that the applicant or WIND FARM owner and the GOVERNING BODY (County Board) shall agree on a mutually acceptable financial institution at which an escrow account shall be established. The Draft Reclamation Agreement received on 10/20/11 does not provide for a mutually acceptable financial institution and a waiver is required that was not part of the legal advertisement. The Board should include some mention of this Ordinance requirement in a special condition regarding the Reclamation Agreement.
- (i) The State's Attorney has reviewed the Draft Reclamation Agreement received on 10/20/11. The State's Attorney's still has concerns regarding financial lien holders being in a superior position to the County in the case of wind farm abandonment and continues to discuss this with the petitioner's counsel. Financial lien holders may be able to "cherry pick" salvageable value from the wind farm and if significant enough could reduce the salvageable value to a point where the Financial Assurance might not cover the remaining decommissioning costs.
- (j) The Revised Reclamation Agreement received on October 20, 2011, exceeds the Ordinance requirement by guaranteeing a minimum Financial Assurance of \$25,000 even when salvage value exceeds decommissioning costs. Paragraph (4)(c)(ii) establishes the minimum amount and provides for that amount to be updated with known inflation.
- (19) Paragraph 6.1.4 Q. contains standard conditions for a complaint hotline for complaints related to WIND FARM construction and ongoing operation. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements in section 4.2.4 on page 4-8 of the *Application*.
- (20) Paragraph 6.1.4 R. contains the standard condition for expiration of the WIND FARM County Board Special Use Permit. The *Special Use Permit Application* received July 1, 2011, demonstrated compliance with these requirements in section 4.3.2 on page 4-9 of the *Application* although it is likely that the road agreements with the County and the townships will establish a shorter time period for expiration.

**AS APPROVED- RECOMMEND DENIAL**

Item 9.B. (continued)

- (21) Paragraph 6.1.4 S. contains standard conditions establishing additional requirements for application for a WIND FARM County Board Special Use Permit that supplement the basic requirements for a special use permit application. Compliance with these requirements is demonstrated as follows:
  - (a) The *Special Use Permit Application* received July 1, 2011.
  - (b) Parcel Status Summary Map with Setbacks California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011 (an excerpt of only the Champaign County portion; included separately).
  - (c) Champaign County Non-Participating Dwelling Separation Summary map received July 29, 2011 (included separately).
  
- C. Regarding compliance with the *Stormwater Management Policy*:
  - (1) Regarding the requirement of stormwater detention:
    - (a) The subject property is less than 16% impervious areas in total.
    - (b) Section 4.3 of the Stormwater Management Policy requires stormwater detention for any part of a lot with more than an acre of impervious area within any rectangular area of 90,000 square feet but there is no part of the proposed WIND FARM that will have that much impervious area in such a small area.
    - (c) The proposed WIND FARM is exempt from the requirement for a stormwater drainage plan with detention.
  - (2) Regarding the requirement to protect agricultural field tile, see the review of compliance with paragraph 6.1.4 E. that contains standard conditions to mitigate damage to farmland.
  
- D. Regarding the Special Flood Hazard Areas Ordinance and Subdivision Regulations the subject property is not located in the Special Flood Hazard Area.
  
- E. Regarding the requirement that the Special Use preserve the essential character of the AG-1 Agriculture Zoning District:
  - (1) The proposed use is a WIND FARM that is consistent with the essential character of the AG-1 Agriculture District because it is only authorized in the AG-1 District.
  
- F. The proposed Special Use must comply with the Illinois Accessibility Code which is not a County ordinance or policy and the County cannot provide any flexibility regarding that Code.

**GENERALLY REGARDING WHETHER THE SPECIAL USE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ORDINANCE**

10. Regarding the *Zoning Ordinance* requirement that the proposed Special Use is in harmony with the general intent and purpose of the Ordinance:
  - A. WIND FARM may be authorized by the County Board in the AG-1 Agriculture Zoning District as a Special Use provided all other zoning requirements and standard conditions are met or waived.
    - (1) A proposed Special Use that does not conform to the standard conditions requires only a waiver of that particular condition and does not require a variance. Waivers of standard conditions are subject to the following findings:
      - (a) that the waiver is in accordance with the general purpose and intent of the ordinance; and
      - (b) that the waiver will not be injurious to the neighborhood or to the public health, safety, and welfare.
    - (2) However, a waiver of a standard condition is the same thing as a variance and Illinois law (55ILCS/ 5-12009) requires that a variance can only be granted in accordance with general or specific rules contained in the Zoning Ordinance and the VARIANCE criteria in paragraph 9.1.9 C. include the following in addition to criteria that are identical to those required for a waiver:
      - (a) Special conditions and circumstances exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district.
      - (b) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied will prevent reasonable or otherwise permitted use of the land or structure or construction
      - (c) The special conditions, circumstances, hardships, or practical difficulties do not result from actions of the applicant.
    - (3) Including findings based on all of the criteria that are required for a VARIANCE for any waiver of a standard condition will eliminate any concern related to the adequacy of the required findings for a waiver of a standard condition and will still provide the efficiency of not requiring a public hearing for a VARIANCE, which was the original reason for adding waivers of standard conditions to the Ordinance.
  - B. See Section 12 for a summary of evidence regarding whether any requested waiver of standard conditions will be in harmony with the general intent and purpose of the Ordinance.

**AS APPROVED- RECOMMEND DENIAL**

Item 10. (continued)

C. Regarding whether the proposed Special Use Permit is in harmony with the general intent of the Zoning Ordinance:

(1) Subsection 5.1.1 of the Ordinance states the general intent of the AG-1 District and states as follows (capitalized words are defined in the Ordinance):

The AG-1, Agriculture DISTRICT is intended to protect the areas of the COUNTY where soil and topographic conditions are best adapted to the pursuit of AGRICULTURAL USES and to prevent the admixture of urban and rural USES which would contribute to the premature termination of AGRICULTURAL pursuits.

(2) The types of uses authorized in the AG-1 District are in fact the types of uses that have been determined to be acceptable in the AG-1 District. Uses authorized by Special Use Permit are acceptable uses in the district provided that they are determined by the ZBA to meet the criteria for Special Use Permits established in paragraph 9.1.11 B. of the Ordinance.

(3) Paragraph 2 .0 (a) of the Ordinance states that one purpose of the Ordinance is securing adequate light, pure air, and safety from fire and other dangers.

(a) This purpose is directly related to the limits on building coverage and the minimum yard requirements in the Ordinance and the proposed site plan appears to be in compliance with those requirements.

(4) Paragraph 2.0 (b) of the Ordinance states that one purpose of the Ordinance is conserving the value of land, BUILDINGS, and STRUCTURES throughout the COUNTY.

(a) In regards to the value of nearby properties, it is unclear what impact the proposed SUP will have on the value of nearby properties.

(b) With regard to the value of the subject property,

(5) Paragraph 2.0 (c) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding congestion in the public STREETS.

(6) Paragraph 2.0 (d) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding the hazards to persons and damage to PROPERTY resulting from the accumulation of runoff from storm or flood waters.

The requested Special Use Permit complies with the *Champaign County Stormwater Management Policy* and is outside of the Special Flood Hazard Area and there are no special drainage problems that appear to be created by the Special Use Permit.



Item 10.C. (continued)

- (7) Paragraph 2.0 (e) of the Ordinance states that one purpose of the Ordinance is promoting the public health, safety, comfort, morals, and general welfare.
- (a) In regards to public safety, this purpose is similar to the purpose established in paragraph 2.0 (a) and is in harmony to the same degree.
- (b) In regards to public comfort and general welfare, this purpose is similar to the purpose of conserving property values established in paragraph 2.0 (b) and is in harmony to the same degree.

- (8) Paragraph 2.0 (f) states that one purpose of the Ordinance is regulating and limiting the height and bulk of BUILDINGS and STRUCTURES hereafter to be erected; and paragraph 2.0 (g) states that one purpose is establishing, regulating, and limiting the BUILDING or SETBACK lines on or along any STREET, trafficway, drive or parkway; and paragraph 2.0 (h) states that one purpose is regulating and limiting the intensity of the USE of LOT AREAS, and regulating and determining the area of OPEN SPACES within and surrounding BUILDINGS and STRUCTURES.

These three purposes are directly related to the limits on building height and building coverage and the minimum setback and yard requirements in the Ordinance and the proposed site plan appears to be in compliance with those limits.

- (9) Paragraph 2.0 (i) of the Ordinance states that one purpose of the Ordinance is classifying, regulating, and restricting the location of trades and industries and the location of BUILDINGS, STRUCTURES, and land designed for specified industrial, residential, and other land USES; and paragraph 2.0 (j.) states that one purpose is dividing the entire COUNTY into DISTRICTS of such number, shape, area, and such different classes according to the USE of land, BUILDINGS, and STRUCTURES, intensity of the USE of LOT AREA, area of OPEN SPACES, and other classification as may be deemed best suited to carry out the purpose of the ordinance; and paragraph 2.0 (k) states that one purpose is fixing regulations and standards to which BUILDINGS, STRUCTURES, or USES therein shall conform; and paragraph 2.0 (l) states that one purpose is prohibiting USES, BUILDINGS, OR STRUCTURES incompatible with the character of such DISTRICT.

Harmony with these four purposes requires that the special conditions of approval sufficiently mitigate or minimize any incompatibilities between the proposed Special Use Permit and adjacent uses, and that the special conditions adequately mitigate nonconforming conditions.

- (10) Paragraph 2.0 (m) of the Ordinance states that one purpose of the Ordinance is preventing additions to and alteration or remodeling of existing BUILDINGS, STRUCTURES, or USES in such a way as to avoid the restrictions and limitations lawfully imposed under this ordinance.

**AS APPROVED- RECOMMEND DENIAL**

Item 10.C. (continued)

This purpose is not relevant to the proposed Special Use Permit because it relates to nonconforming buildings, structures, or uses that existed on the date of the adoption of the Ordinance and none of the current structures or the current use existed on the date of adoption.

- (11) Paragraph 2.0 (n) of the Ordinance states that one purpose of the Ordinance is protecting the most productive AGRICULTURAL lands from haphazard and unplanned intrusions of urban USES.

The subject property is located in the AG-1 Agriculture District and is, by definition, a rural use.

- (12) Paragraph 2.0 (o) of the Ordinance states that one purpose of the Ordinance is protecting natural features such as forested areas and watercourses.

The subject property does not contain any natural features and there are no natural features in the vicinity of the subject property.

- (13) Paragraph 2.0 (p) of the Ordinance states that one purpose of the Ordinance is encouraging the compact development of urban areas to minimize the cost of development of public utilities and public transportation facilities.

The subject property is located in the AG-1 Agriculture District and is, by definition, a rural use.

- (14) Paragraph 2.0 (q) of the Ordinance states that one purpose of the Ordinance is encouraging the preservation of AGRICULTURAL belts surrounding urban areas, to retain the AGRICULTURAL nature of the COUNTY, and the individual character of existing communities.

All of the project area is located in the AG-1 Agriculture District and is, by definition, a rural use.

- (15) Paragraph 2.0 (r) of the Ordinance states that one purpose of the Ordinance is to provide for the safe and efficient development of renewable energy sources in those parts of the COUNTY that are most suited to their development.

All of the project area is located in the AG-1 Agriculture District which is the only zoning DISTRICT in which WIND FARM is authorized.

*GENERALLY REGARDING WHETHER THE SPECIAL USE IS AN EXISTING NONCONFORMING USE*

11. The proposed Special Use is an existing NONCONFORMING USE because it is an existing business that has been in operation without all necessary approvals. The Petitioner has testified on the application, "N/A"

*GENERALLY REGARDING OTHER CONSIDERATIONS RELATED TO THE WAIVERS OF STANDARD CONDITIONS*

12. Regarding the necessary waivers of standard conditions:
  - A. Waive the standard condition of 6.1.4 D. 1 (a) that requires certificates of design compliance from Underwriters Laboratories ("UL") or equivalent third party. The following are relevant considerations:
    - (1) The certificate of design compliance from Underwriters Laboratories ("UL") or an equivalent third party is intended to document that the wind farm turbines meet relevant industry safety standards.
    - (2) The manufacturer has not yet received a certificate of compliance for this model of turbine.
    - (3) The applicant should be able to provide the certificate of design compliance before the wind farm begins commercial operation.
    - (4) The Zoning Administrator must authorize a Zoning Compliance Certificate for the wind farm before the wind farm begins commercial operation and a special condition has been proposed to require the submission of a certificate of design compliance as a prerequisite to receiving a Zoning Compliance Certificate.
  - B. Waive the standard condition of 6.1.4 F.1. that requires a signed Roadway Upgrade and Maintenance Agreement prior to the close of the public hearing before the Zoning Board of Appeals. The following are relevant considerations:
    - (1) Subparagraph 6.1.4F.1. requires the Applicant to enter into a signed Roadway Upgrade and Maintenance agreement approved by the County Engineer and State's Attorney and/or any relevant Township Highway Commissioner prior to the close of the public hearing.
    - (2) There is no signed Roadway Upgrade and Maintenance agreement approved by either the County Engineer and State's Attorney or the Compromise or Ogden Township Highway Commissioners.
    - (3) Appendix H of the *California Ridge Wind Energy Project Champaign County Special Use Permit Application* received July 1, 2011, states that a Road Use and Repair Agreement is still being negotiated with the Champaign County Engineer and the Compromise and Ogden Township Highway Commissioners. The *Application* did not request this waiver.

AS APPROVED- RECOMMEND DENIAL

Item 12. B. (continued)

- (4) A letter regarding road use agreements was received from Marvin Johnson, Compromise Township Highway Commissioner, and Greg Frerichs, Odgen Township Highway Commissioner, on August 18, 2011. The letter can be summarized as follows:
  - (a) the Highway Commissioners have been discussing the use of township roads for the construction of the California Ridge Wind Farm with Invenergy since the Spring of 2009;
  - (b) they remain optimistic that the terms of an agreement can be reached within the next few weeks;
  - (c) they request that the ZBA adhere to the terms of the Zoning Ordinance while allowing them to fulfill their responsibilities as Highway Commissioners.
- (5) At the September 8, 2011, public hearing County Engineer Jeff Blue testified that the County road agreement was ready for referral to the State's Attorney and that he could recommend the County Board to approve the County road agreement in its present form.
- (6) A special condition has been proposed to require County Board approval of the County road agreement prior to the County Board decision in this special use permit.

C. Waive the standard condition of 6.1.4 F.1.u. that requires street upgrades be in accordance with IDOT Bureau of Local Roads manual, 2005 edition. Requested by Invenergy on p. H-1 in Appendix H of the *California Ridge Wind Energy Project Champaign County Special Use Permit Application* received July 1, 2011. The following are relevant considerations:

- (1) From Appendix H of the *Application*:
  - (a) A Road Use and Repair Agreement is still being negotiated with the Champaign County Engineer and the Compromise and Ogden Township Highway Commissioners.
  - (b) The intent of the Road Use and Repair Agreement is to insure that roads used in connection to the wind farm are in as good a condition after the wind farm construction as they were before the wind farm construction.

## Item 12. C. (continued)

- (c) Implementation of upgrade requirements called for by the Bureau of Local Roads and Streets Manual would entail substantial widening and reconstruction of a number of roads and that would impose a significant financial burden on California Ridge to the extent that it would jeopardize the financial viability of the wind farm.
  - (d) Pursuant to the Illinois Highway Code, a Township Highway Commissioner does not have the authority to unilaterally agree to the widening or alternation of township roads.
- (2) Repairing or rebuilding roads is not necessarily the same as an upgrade.
  - (3) The IDOT Bureau of Local Roads Manual, 2006 edition, and the IDOT *Standard Specifications for Road and Bridge Construction*, which may be referred to collectively as the BLR standards, are the standard requirements for road and bridge construction in the rural areas of the State of Illinois and are intended to ensure that road and bridge construction provides minimum public safety.
  - (4) The County Engineer and the relevant Township Highway Commissioner are responsible to ensure public safety, efficiency, and other relevant public considerations, on all streets (roads) within their respective jurisdictions.
  - (5) It is anticipated that other unforeseen situations besides widening of right of way might arise during WIND FARM development for which any BLR standard might pose unique or peculiar problems that must be addressed by the Applicant and the relevant street authority.
  - (6) Waiving the requirement for compliance with the BLR standards without some means to ensure public safety would not be consistent with the Ordinance requirement to prevent injury to the neighborhood or injury to the public health, safety, and welfare.
  - (7) Waiving the requirement for compliance with the BLR standards subject to the discretion of the relevant street maintenance authority should ensure adequate public safety while providing the necessary flexibility to meet the peculiar conditions that may arise during WIND FARM development.
  - (8) The Ordinance requires the Applicant to enter into a signed Roadway Upgrade and Maintenance Agreement with each relevant street maintenance authority prior to the close of the public hearing. Each Road Agreement should refer to the BLR standards but provide that the street maintenance authority has the authority to exercise discretion in application of the BLR standards.

AS APPROVED- RECOMMEND DENIAL

Item 12. C. (continued)

- (9) A special condition has been proposed that would limit the requested waiver so as to ensure adequate public safety.

D. Waive the standard condition 6.1.4 I. 1. that requires the noise level of each wind farm tower and wind farm to be in compliance with the Illinois Pollution Control Board regulations at the residential property line rather than to be compliance just at the dwelling. The following are relevant considerations:

- (1) Subparagraph 6.1.4 I. 1. requires the noise level from each WIND FARM TOWER or WIND FARM shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910).
- (2) Regarding the Illinois Pollution Control Board (IPCB) regulations (35 *Illinois Administrative Code* Subtitle H: Noise Parts 900, 901, 910):
- (a) 35 IAC 901.101 b) defines Class A land as all land used as specified by LBSC Codes 1000 through 1340, 2410 through 2455, 5200 through 5230, 5500, 6100 through 6145, 6222, 6510 through 6530, 6568 through 6600.
- (b) Appendix B to 35 IAC 901 identifies LBSC Code 1100 as "Private Household" and as Class A under 35 IAC 901 Land Class.
- (c) Appendix B to 35 IAC 901 does not contain the land use "wind farm" but does identify "alternative energy sources" under LBSC Code 4314 as Class C.
- (d) 35 IAC 901.102 regulates the emission of sound from any property line noise source located on any Class A,B, or C land to any receiving Class A land. One type of Class A land is land used for a private household.
- (3) Regarding the compliance of the proposed WIND FARM with the applicable IPCB noise regulations:
- (a) The discussion of the anticipated noise levels on p. 5-3 of the *Application* explains that "a total of 553 receptors (at residences) were modeled for the Project area." and refers several times to "residences" as "noise receivers" but never refers to "residential land".
- (b) Tables 5 and 6 in Appendix C summarize the daytime and nighttime sound analysis modeling results for the relevant octave bands for the residence with the highest noise level and compares those results to the maximum allowable sound level. The modeling results are lower than the maximum allowable sound level for all octave bands.

## Item 12. D. (continued)

- (c) Appendix C in Appendix C gives the noise modeling results on an hourly basis (Leq) for all receptors and the maximum allowable sound level is never exceeded at any octave band but IPCB noise regulations do not regulate Leq.
  - (4) In a letter approved at the October 29, 2009, ZBA meeting the ZBA had requested that the County Board approve the hiring of a noise consultant to provide a qualified evaluation of wind farm noise submittals. At the November 30, 2009, the Environment and Land Use Committee voted to not hire a noise consultant to evaluate the noise studies submitted by wind farm developers.
  - (5) At the September 1, 2011, public hearing Petitioner's Attorney Michael Blazer submitted a Memorandum that briefly reviewed and had as attachment the Illinois Pollution Control Board's (IPCB) decision in *Knox v. Turris Coal Co.* which involved noise complaints by Gladys and David Knox who apparently owned a total of 94 acres of which 90 acres were farmed and the other 4 acres included their dwelling and a pond. In the *Knox* case the IPCB confirmed that a farm dwelling is Class A land but the farmland was Class C and the pond was "unclassified".
  - (6) Apparently no land use in the IPCB regulations is distinguished between the interior activities and exterior activities which leads to the question of whether there are no limits on the noise level that outdoor activities may be subject to or does that mean that the limit applies to all activities that are a part of that use whether it be interior activities or exterior activities, in the same way as under the Zoning Ordinance an entire property is classified as one principal use?
- E. Waive the standard condition of 6.1.4 J. that requires the application to contain a copy of the Agency Action Report from the Illinois Department of Natural Resources Endangered Species Program. The following are relevant considerations:
- (1) Subparagraph 6.1.4 J. requires the application to contain a copy of the Agency Action Report from the Illinois Department of Natural Resources Endangered Species Program.
  - (2) As requested by Invenegy on pages 5-19 and 5-20 of the *California Ridge Wind Energy Project Champaign County Special Use Permit Application* received July 1, 2011:
    - (1) California Ridge consulted with the Illinois Department of Natural Resources (IDNR) and a letter dated December 4, 2009, was received from the IDNR and included in Appendix J. In the letter Keith Shank stated "The Department's consultation process for this proposal is terminated."

AS APPROVED- RECOMMEND DENIAL

Item 12. E. (continued)

- (3) In the letter dated December 4, 2009, from the IDNR Keith Shank also stated that the consultation was only valid for a two-year period and if the proposed action was not implemented in that time a new consultation will be necessary.
- (4) In a July 13, 2011, email to John Hall, Keith Shank, Division of Ecosystems and Environment, Illinois Department of Natural Resources, stated as follows:
  - (a) His letter to Champaign County dated September 21, 2009, which was identical to the letter dated December 4, 2009, would substitute for an Agency Action Report and the consultation was not out of date but that conditions had changed regarding the Indiana Bat and the Mudpuppy Salamander and an updated consultation was necessitated.
  - (b) Consultation is technically not complete until the authorizing agency (Champaign County) stated its response to the IDNR recommendations.
- (5) A second letter from Keith M. Shank regarding an additional consultation and Endangered Species Consultation Program Natural Heritage Database Review #1002516 dated August 18, 2011, states as follows:
  - (a) The Department recommends Invenergy undertake mist-netting and telemetry surveys in the vicinity of the project area to better document the numbers and relative abundances of bat species occurring in the area, placing an emphasis on the Indiana Bat and its seasonal movements.
  - (b) The Department recommends the County require at least one post-construction fall migration season bat mortality study to document levels of bat mortality resulting from the project's operation.
  - (c) Champaign County must notify the Department of its decision regarding this recommendation and which of the following the County will require:
    - (1) Proceed with the action as originally proposed; or
    - (2) Require the action to be modified per Department recommendations (please specific which measures if not all will be required); or
    - (3) Forgo the action.
- (6) Regarding the IDNR recommendations dated August 18, 2011:
  - (a) Regarding the second part of the IDNR recommendation dated August 18, 2011, recommending post-construction mortality studies, post-construction mortality studies are a requirement of the Ordinance and the discussion on pages 5-23 and 5-24 of the *Special Use Permit Application* received July 1, 2011, appears to be consistent with the Ordinance.



Item 12. E. (continued)

- (b) Regarding the first part of the IDNR recommendation dated August 18, 2011, recommending mist-netting and telemetry surveys to better document the numbers and relative abundances of bat species occurring in the area, placing an emphasis on the Indiana Bat and its seasonal movements:
  - (1) In an email dated August 23, 2011, Keith Shank of the IDNR stated that Invenergy has performed the the Blackball Mine Emergence Study to evaluate the movement of reproductive female Indiana bats but that study doesn't do anything to quantify the risk to or from Indiana Bats roosting along the Middle Fork.
  - (2) In the email dated August 23 ,2011, Keith Shank of the IDNR noted that IDNR recommendations are advisory and Champaign County may proceed as seems best to it.
  
- F. Waive the standard condition of 6.1.4 S.1.(c)(3) that requires that locations of wind turbines for the zoning use permit application cannot increase the noise impact over that approved in the special use permit. The following are relevant considerations:
  - a. Subparagraph 6.1.4 I. 1. requires that noise levels must be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations. Paragraph 6.1.4 I. is titled "standard conditions for allowable noise level"and does not use the term "noise impact(s)" and generally refers to noise "levels".
  - b. Subparagraph 6.1.4 S.1.(c)(3) requires that locations of wind turbines for the zoning use permit application cannot increase the noise impact over that approved in the special use permit.
  - c. The applicant has requested that the special use permit allow greater flexibility in adjusting the final location of WIND FARM TOWERS provided that the applicable noise regulations are not exceeded. The requested flexibility could result in somewhat greater noise levels than indicated in Appendix C of the *Application* but the noise level at any residence would not be greater than allowed under the IPCB regulations
  - d. A special condition has been proposed that would limit the flexibility in adjustment of the final location of WIND FARM TOWERS.

*GENERALLY REGARDING PROPOSED SPECIAL CONDITIONS OF APPROVAL*

13. Regarding proposed special conditions of approval:

A. Regarding the specific limits on the number and type of wind turbines, the maximum proposed height of WIND TURBINE TOWERS, and the overall nameplate capacity:

**This special use permit authorizes a WIND FARM as follows:**

1. **The type of wind turbine authorized is the General Electric 1.6-100 wind turbine with a hub height of 100 meters (328 feet) and a rotor diameter of 100 meters (328 feet).**
2. **The maximum overall height of each WIND FARM TOWER shall be 492 feet.**
3. **The maximum number of WIND TURBINE TOWERS (wind turbines) is 30 with a total nameplate capacity of not more than 48 megawatts (MW) of which not more than 28 WIND FARM TOWERS with a total nameplate capacity of not more than 44.8 MW are proposed in Compromise Township (Part A) and not more than 2 WIND FARM TOWERS with a total nameplate capacity of not more than 3.2 MW are proposed in Ogden Township (Part B), and including access roads, wiring, and related work on specified public roads (highways).**

The above special condition is required to ensure that:

The constructed WIND FARM is consistent with the special use permit approval.

B. Regarding the approved site plan:

**The approved site plan consists of the following documents:**

1. **California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011**
2. **Status Summary Map with Setbacks California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011 (an excerpt of only the Champaign County portion**
3. **Champaign County Non-Participating Dwelling Separation Summary map received July 29, 2011 Parcel**
4. **Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011**

The above special condition is required to ensure that:

The constructed WIND FARM is consistent with the special use permit approval.

Item 13. (continued)

- C. Regarding the requested waiver of the standard condition of 6.1.4 F.1. that requires a signed Roadway Upgrade and Maintenance Agreement prior to the close of the public hearing before the Zoning Board of Appeals, the following special condition makes it clear that a signed Roadway Upgrade and Maintenance Agreement shall be required prior to any County Board decision on this special use permit:

**The County Board shall not make a final decision in Case 696-S-11 until it has authorized the County Board Chair to sign the Roadway Upgrade and Maintenance Agreement recommended by the County Engineer and received copies of all necessary signed township road agreements.**

The above special condition is required to ensure that:

All relevant highway jurisdictions are allowed to fulfill their responsibilities without unduly delaying a final decision in Case 696-S-11.

- D. Regarding the waiver of the standard condition 6.1.4 F.1.u. that requires street upgrades be in accordance with IDOT Bureau of Local Roads manual, 2005 edition:

**The Roadway Upgrade and Maintenance Agreements shall require road repair work to be performed in accordance with the IDOT Bureau of Local Roads Manual, 2006 edition, and the IDOT *Standard Specifications for Road and Bridge Construction*, but the relevant street jurisdiction may, on a case by case basis, exercise their discretion to waive the BLR standards so long as public safety is not compromised.**

The above special condition is required to ensure that:

Road use agreements ensure adequate public safety but also provide necessary flexibility in road repair work.

- E. Regarding the authorized hours of construction of the proposed WIND FARM:

**Construction activities to build the WIND FARM shall generally only occur during the weekday daytime hours of 7AM to 10PM but never on Sunday, provided, however, that construction activities may occasionally commence earlier in the day if required but not earlier than 5AM. Those construction activities include but are not limited to the following:**

- 1. Construction of access roads**
- 2. Delivery and unloading of WIND FARM equipment and materials**
- 3. Excavation for and construction of WIND FARM TOWER foundations**
- 4. Installation of WIND FARM wiring**
- 5. Assembly of WIND FARM turbines**
- 6. Erection of WIND FARM TOWERS**

Item 13. E. (continued)

The above special condition is required to ensure that:

The affects of WIND FARM construction on neighbors is consistent with the special use permit approval.

- F. The Ordinance does not impose an ultimate limit on shadow flicker and neighbors who are predicted to receive no more than 30 hours of shadow flicker per year at the time of the special use permit public hearing (unless mitigated in some way) expect that the actual shadow flicker will not be much different. The following special condition will ensure that the actual shadow flicker will not be much different than the amount indicated in the public hearing:

**No NON- PARTICIPATING DWELLING or other PRINCIPAL STRUCTURE shall receive more than 45 hours of shadow flicker per year.**

The above special condition is required to ensure that:

The actual shadow flicker cast on non-participating neighbors is similar to the anticipated shadow flicker that was presented in the public hearing.

- G. Regarding the standard condition 6.1.4 R. that provides for expiration of the special use permit:

**This special use permit shall expire on the following dates and/ or for the following reasons:**

- 1. If no zoning use permit application has been received by the Department of Planning and Zoning by 4:30PM on March 1, 2013, which is consistent with the expiration deadline in the Roadway Upgrade and Maintenance Agreements and the approved Reclamation Agreement; or**
- 2. Upon completion of all decommissioning and reclamation requirements of the WIND FARM Reclamation Agreement and the subsequent release of the financial assurance required by 6.1.4 P. following the requirements of a written agreement with the COUNTY.**

The above special condition is required to ensure that:

The ultimate limits of the special use permit are clearly defined and consistent with the Ordinance requirements and the special use permit approval.

Item 13. (continued)

H. The following conditions will help ensure that WIND FARM TOWERS are located and constructed in conformance with the approved site plan:

1. **The Zoning Administrator shall not approve a Zoning Use Permit for construction of a WIND FARM TOWER if the location indicated on the Zoning Use Permit site plan differs from that in the approved site plan for the special use permit as follows:**
  - (a) **The Zoning Use Permit location shall not differ more than 500 feet from the approved site plan for the special use permit except that a WIND FARM TOWER more than 1,500 feet from a non-participating PRINCIPAL STRUCTURE on the approved site plan for the special use permit shall not be approved to be less than 1,350 feet from that same STRUCTURE on a Zoning Use Permit; and provided that**
  - (b) **A WIND FARM TOWER that is 1,500 feet or less from a non-participating PRINCIPAL STRUCTURE on the approved site plan for the special use permit shall not be located less than 90% of that distance to the same STRUCTURE on a Zoning Use Permit; and provided that**
  - (c) **A new noise analysis meeting the requirement of 6.1.4 I. shall be submitted with the Zoning Use Permit for any WIND FARM TOWER with a new location that is less than 1,500 from a non-participating PRINCIPAL STRUCTURE; and provided that**
  - (d) **No separation to a non-participating property or PRINCIPAL STRUCTURE shall be less than the minimum required by the Ordinance.**
2. **Prior to excavation for any WIND FARM TOWER footing:**
  - (a) **The Applicant shall notify the Zoning Administrator when each WIND FARM TOWER location has been identified and marked on the ground so that the Zoning Administrator or a representative can verify that the location is consistent with the approved site plan in the special use permit case.**
  - (b) **The Zoning Administrator shall issue a WIND FARM TOWER Foundation Permit after verifying that the WIND FARM TOWER location is consistent with the approved site plan.**
  - (c) **The Applicant shall not excavate any WIND FARM TOWER footing until the WIND FARM TOWER Foundation Permit has been approved.**

Item 13. H. (continued)

The above special conditions are required to ensure that:

The WIND FARM TOWERS are located in general conformance with the assertions and studies documented in the California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011, and that the Applicant has some flexibility for optimizing location based on circumstances at each WIND FARM TOWER site.

1. Regarding the approved Reclamation Agreement:

**A Reclamation Agreement is required at the time of application for a zoning use permit that complies with the following:**

- 1. The Revised Draft Reclamation Agreement received on 10/20/11 with all required signatures including a guaranteed minimum amount of \$25,000 that shall be updated annually to reflect the known rate of inflation.**
- 2. The expenses and values, including salvage value, as listed in the Base Decommissioning Cost Estimate received 10/06/11 and that is Attachment A to the Draft Reclamation Agreement received on 10/20/11.**
- 3. An irrevocable letter of credit. If required by the County Board the letter of credit shall be provided as multiple letters of credit based on the regulations governing federal insurance for deposit as authorized in 6.1.4 P. 4. (a) of the Ordinance.**
- 4. An escrow account that is at a mutually acceptable financial institution that is either identified in the County Board determination of this special use permit or included as a special condition of that determination, as authorized in 6.1.4 P. 4. (b)(1) of the Ordinance.**

The above special conditions are required to ensure that:

The special use permit complies with Ordinance requirements and as authorized by waiver.

J. Regarding specific submittals required prior to the approval of a zoning use permit to authorize construction of the WIND FARM:

**The following submittals are required prior to the approval of any zoning use permit for a WIND FARM TOWER:**

- 1. Certification by an Illinois Professional Engineer or Illinois Licensed Structural Engineer that the foundation and tower design of each WIND FARM TOWER is within accepted professional standards, given local soil and climate conditions, as required by 6.1.4 D.1.(b).**

Item 13. J. (continued)

2. **A Transportation Impact Analysis provided by the applicant that is acceptable to the County Engineer and the State's Attorney; and for highways in Compromise Township is acceptable to the Compromise Township Highway Commissioner; and for highways in Ogden Township is acceptable to the Ogden Township Highway Commissioner, as required by 6.1.4 F. 2..**
3. **A signed Reclamation Agreement in conformance with all special conditions and waivers included in the special use permit approval.**
4. **A copy of the Recorded Covenant pursuant to 6.1.1 A.2.**
5. **The telephone number for the complaint hotline required by 6.1.4 Q.**
6. **A site plan for the installation of the specific WIND FARM TOWER indicating the specific proposed location of the WIND FARM TOWER, other PRINCIPAL STRUCTURES within 1,500 feet separation, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substations(s), and layout of all structures within the geographical boundaries of any applicable setback.**
7. **A copy of the approved access permit for the access road by the relevant highway jurisdiction.**
8. **A copy of any required permits for use of public highways by overweight vehicles.**
9. **A permanent soil erosion and sedimentation plan for all WIND FARM TOWER sites and access roads that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.**

The above special condition is required to ensure that:

The WIND FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

Item 13. (continued)

- K. The following special condition makes it clear that a Zoning Compliance Certificate will be required to document that each WIND FARM TOWER was constructed in conformance with the approved site plan:

**A Zoning Compliance Certificate shall be required for each WIND FARM TOWER prior to the WIND FARM going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:**

1. **An as-built site plan of each specific WIND FARM TOWER indicating the specific as-built location of the WIND FARM TOWER, other PRINCIPAL STRUCTURES within 1,500 feet separation, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substations(s), and layout of all structures within the geographical boundaries of any applicable setback.**
2. **As-built documentation of all permanent soil erosion and sedimentation improvements for all WIND FARM TOWER sites and access roads prepared by an Illinois Licensed Professional Engineer.**
3. **A copy of the approved as-built access road by the relevant highway jurisdiction.**

The above special condition is required to ensure that:

The WIND FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

- L. The following special condition makes it clear that a Zoning Compliance Certificate will be required to document that the entire WIND FARM complies with the specific requirements that apply to the overall WIND FARM as follows:

**The California Ridge WIND FARM shall not begin commercial production of energy until the Zoning Administrator has approved a Zoning Compliance Certificate for the entire California Ridge WIND FARM based on submission and acceptance of all of the following:**

1. **A Zoning Compliance Certificate has been approved for all WIND FARM TOWERS approved in the Special Use Permit.**
2. **A copy of a certificate of design compliance for the General Electric 1.6-100 wind turbine has been received from Underwriters Laboratories (“UL”) or an equivalent third party such as TUV NORD Group, as authorized in 6.1.4 D. 1 (a).**



Item 13. L. (continued)

3. **Documentation of compliance with all required post-WIND FARM construction requirements has been received from the relevant highway jurisdictions.**
4. **The Zoning Administrator has verified that informational signs have been erected at each WIND FARM accessway as follows:**
  - a. **The purpose of the signs shall be to publicize the telephone number of the WIND FARM complaint hotline required by 6.1.4 Q.**
  - b. **The minimum size of each sign shall be 2 feet by 2 feet.**

The above special condition is required to ensure that:

WIND FARM turbines are certified to meet relevant industry safety standards and the entire WIND FARM complies with the special use permit approval before it begins commercial operation.

M. Regarding specific requirements that apply even after the WIND FARM goes into commercial operation:

**The Applicant or Owner or Operator of the WIND FARM shall comply with the following:**

1. **Cooperate with local fire protection districts to develop the districts emergency response plan as required by 6.1.4 G.2.**
2. **Take all reasonable steps to resolve complaints of interference caused by the WIND FARM to microwave transmission providers, local emergency service providers (911 operators), and broadcast residential television as required by 6.1.4 H.**
3. **Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.4 I.6.**
4. **Complete all post-WIND FARM construction mortality studies on birds and bats as required by 6.1.4 L.3. and as proposed in the *California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011* particularly pages 5-22 through 5-24, and submit written reports to the Environment and Land Use Committee at the end of the first two years of WIND FARM operation and cooperate with the Environment and Land Use Committee in resolving mortality concerns that might arise as required by 6.1.4 L. 3(e).**
5. **Maintain a current general liability policy as required by 6.1.4 N.**

**AS APPROVED- RECOMMEND DENIAL**

Item 13. M. (continued)

6. **Submit annual operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.4 O.1.**
7. **Maintain compliance with the approved Reclamation Agreement including replacement irrevocable commercial letters of credit as required in the Reclamation Agreement.**
8. **Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.4 Q.**

The above special condition is required to ensure that:

The future requirements for the Applicant or Owner or Operator of the WIND FARM are clearly identified.

## DOCUMENTS OF RECORD

1. *California Ridge Wind Energy Project Champaign County Special Use Permit Application* received July 1, 2011
2. Signed special use permit application for Case 696-S-11 received on July 11, 2011
3. List of all recorded grants of easement to Invenergy Wind Development LLC from all participating landowners for development of a wind farm, received on July 28, 2011
4. Parcel Status Summary Map with Setbacks, California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011
5. Map titled Champaign County Non-Participating Dwelling Separation Summary, California Ridge Wind Energy Project, Champaign and Vermilion Counties, Illinois, received July 29, 2011
6. Preliminary Memorandum with attachments:
  - A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B
  - B California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011 (paper copy distributed only to ZBA members)
7. Letter regarding road use agreements from Marvin Johnson, Compromise Township Highway Commissioner, and Greg Frerichs, Odgen Township Highway Commissioner, received on August 18, 2011
8. Supplemental Memorandum dated August 17, 2011, with attachments:
  - A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B
  - B Case maps (Location & Zoning)
  - C Parcel Status Summary Map with Setbacks California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011 (an excerpt of only the Champaign County portion; included separately)
  - D Excerpts from California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011 (included separately):
    - (1) pages 2-1 to 2-9, 3-1
    - (2) pages 3-4, 3-5, 3-8, 3-9
    - (3) pages 3-11, 4-1 to 4-6 and 4-8
    - (4) pages 4-9, 4-10 and 5-1 to 5-4
    - (5) pages 5-6, 5-8 to 5-11 and 5-13, 5-14, 5-15
    - (6) Appendix B California Ridge Wind Energy Project Decommissioning Report
    - (7) Appendix H Road Use and Repair Agreement
    - (8) Appendix K Reclamation Agreement
    - (9) Figure 3-2. Project Location and Preliminary Site Layout
    - (10) Figure 3-5 Participating Properties and Champaign County Required Setbacks
    - (11) Figure 4-3 Road Use Plan

- (12) Figure 5-1 Shadow Effect Likely Hours per Year of Shadow Flicker
  - (13) Appendix C Figure A-2 Sound Contours
  - E Champaign County Non-Participating Dwelling Separation Summary map received July 29, 2011 (included separately)
  - F Letter regarding road use agreements from Marvin Johnson, Compromise Township Highway Commissioner, and Greg Frerichs, Odgen Township Highway Commissioner, received on August 18, 2011
9. Supplemental Memorandum dated August 25, 2011, with attachments:
    - A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B
    - B Table of Necessary Waivers
    - C Relevant Considerations For Necessary Waivers
    - D Excepts from Part 901 of the Illinois Pollution Control Board (IPCB) noise regulations (35 *Illinois Administrative Code* Subtitle H: Noise Part 901)
  10. Map titled California Ridge Setback Summary: Champaign County, California Ridge Wind Energy Project, Champaign and Vermilion Counties, Illinois, received August 25 21, 2011
  11. Parcel Status Summary Map with Setbacks, California Ridge Wind Energy Center, Champaign and Vermilion Counties, Rev. 07, dated August 25, 2011, received August 25, 2011
  12. Letter regarding Endangered Species Consultation Program Natural Heritage Database Review #1002516 dated August 18, 2011, from Keith M. Shank, Division of Ecosystems and Environment, Illinois Department of Natural Resources, received August 25, 2011
  13. Resume of Timothy Casey, Senior Environmental Scientist, received August 25, 2011
  14. Copy of Powerpoint presentation slides for August 25, 2011 by Greg Leuchtman
  15. Handout titled *Fifteen Bad Things with Windpower- and Three Reasons Why* submitted by William Ingram on August 25, 2011
  16. Unsigned letter from Gerry Meyer dated May 8, 2011, to Kim and Darrell Cambron regarding the Forward I Invenergy wind farm in Brownville, Wisconsin, submitted by Kim Cambron on August 25, 2011
  15. Flyer (handout) from Illinois Wind Watch submitted by Kim Cambron on August 25, 2011
  16. Draft Reclamation Agreement received August 30, 2011

17. Supplemental Memorandum dated September 1, 2011, with attachments:
  - A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B dated August 17, 2011
  - B Fifteen Bad Things with Windpower- and Three Reason Why handout from Bill Ingram at the August 25, 2011, public hearing
  - C Erratum received August 2, 2011, to the California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011
  - D Draft Reclamation Agreement received August 30, 2011
  - E Compliance With Subsection 6.1.4 Not Requiring Waivers
  - F Memorandum dated August 26, 2011, from Petitioner's Attorney Michael S. Blazer (included separately)
  - G Minutes of public hearing on August 25, 2011 (included separately)
18. Copy of Powerpoint presentation slides for September 1, 2011 by Greg Leuchtmann
19. *Properly Interpreting the Epidemiologic Evidence about the Health Effects of Industrial Wind Turbines on Nearby Residents*", by Carl V. Phillips, PhD, submitted by Kim Cambron on September 1, 2011.
20. Handouts submitted by Kim Schertz on September 1, 2011:
  1. Trouble in the Wind-Bureau Valley Turbine Costs Skyrocket \$35,000 in Year Six
  2. San Geronio Pass Monthly Wind Production Numbers
  3. Caught in the Turbine: Some Aren't So Excited to see the Region filled with New WFs
  4. Decommissioning Myths
  5. The Rest of the Story – What I Learned at the Wind Conference
  6. Tilting at Windmills
  7. As the Turbine Blades Turn
  8. For the Sake of Green or Greed
  9. Decommissioning Costs and Scrap Value: Beech Ridge Wind Energy Facility
  10. Wind Energy's Ghosts
  11. Misquoted? Tell the DEC, USFSW
  12. Wind Farm Officials Emphasize Safety: Landowners Meet with Bent Tree Reps
  13. Potential Road Damage from Loads Needed for Each Wind Turbine Tower
  14. Black Prairie WF ZBA Hearing Notes 10/09 Eric Schmidt
  15. County Board OK's Landscape Work for Soldiers and Sailors
  16. Wind Farm Dispute May be on Road to Court
  17. County to Take Legal Action
  18. Wind Farm Work Leaves Roads in Bad Shape
  19. Repairing a Wind Turbine
  20. The Money is Not Enough
  21. The Anatomy of a Sucker
  22. Wind turbines, Health, Ridgelines and Valleys

23. Study Says Wind Farm is too Loud
  24. Like Chinese Water torture – Turbine Complaints Focus on Noise
  25. Wind Turbines Too Noisy, Internal Ontario Government Memo Says
  26. Turbines Declared a Nasty Neighbor as Secret Buyout is Revealed
  27. For Those Near, the Miserable Hum of Clean Energy
  28. Noise Measurements – Twin Groves Wind Farm 4-23-07
  29. Living with the Twin Groves Wind Farm – Local Residents Speak Out
  30. Title: Rene Taylor Testimony Before Union, WI Planning Commission
  31. Horizon Energy’s Railsplitter Zoning Hearing, Logan Co, IL 6-28-08
  32. Shepherds Flat Wind Farm: What’s the cost to Taxpayers?
  33. Taxpayers United of America: Taxpayer Organization Charges Wind Turbine Promotion as a Scam and Stealth Tax
- 
21. Supplemental Memorandum dated September 8, 2011, with attachments:
    - A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B dated August 17, 2011
    - B Email from Mary L. Mann, 2778 CR2550N, Penfield to Stan James, Champaign County Board member from District 3
    - C Draft minutes of public hearing on September 1, 2011 (included separately)
  22. Copy of Powerpoint presentation slides for September 8, 2011 by Greg Leuchtmann
  23. Handouts submitted by Darrell Cambron on September 8, 2011:
    1. Court constricts West Virginia wind farm to protect bats
    2. The Indian Law Blog
    3. Maryland Court Order – Animal Welfare Institute versus Beech Ridge Energy LLC
    4. Wind Turbine Noise – What Audiologists Should Know from the July August 2010 edition of *Audiology Today*
    5. Green Backlash: The Wind Turbine Controversy
    6. Affidavit of Michael A. Nissenbaum, MD
    7. Ann Wirtz and Jason Wirtz versus Invenergy LLC
  24. Photographs of wind farm project area near the home of Deanne Sims submitted by Deanne Sims on September 8, 2011
  25. Handouts submitted by Kim Cambron on September 8, 2011:
    1. Signed Original Letter dated May 8, 2011, from Gerry Meyer
    2. Summary of New Evidence: Health Effects We Feel From Living Near Industrial Wind Turbines August, 2011
    3. Caribou threatened by wind farms, expert says
    4. Silence Is Golden
    5. Wind Farms don’t provide the perfect energy solution
    6. Wind farm fight draws Capitol response

7. Our life with Dekalb wind turbines
  8. Health Effects We Feel From Living Near Industrial Wind Turbines
26. Handouts submitted by Kim Schertz on September 8, 2011:
1. White Oak Wind Farm Map of Noise Testing Location
  2. Grand Ridge Wind Energy Project Map of Noise Testing Location
  3. Concerns about Proposed Invenergy Wind Project Draws Capacity Crowd to Meeting in Brown County
  4. Windmill Neighbors air Gripes over Noise; County Planners Grapple with Issue
  5. Jessica's Story – Sheldon, NY – Invenergy's High Sheldon wind farm
  6. Maintaining Wind Fleets: Dealing with Hidden Costs
  7. Invenergy Turbine Blade Failure – Grand Ridge – LaSalle, IL
  8. Wind Turbine Syndrome News
  9. Invenergy Grand Ridge Wind Energy Project Wind Turbine Noise Analysis LaSalle County, Illinois by HDR, May 2007
  10. Noise Measurements- Kim Schertz Carlock IL
  11. Ellsworth- Twin Groves Wind Farm
  12. Sound Evidence from ZBA Hearings- White Oak Wind (Invenergy)
  13. Email - Grand Ridge Invenergy Noise Study
27. Letter of opposition from Herbert N. Frerichs received September 12, 2011
28. Supplemental Memorandum dated September 22, 2011, with attachments:
- A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B dated August 17, 2011
  - B Letter of opposition from Herbert N. Frerichs received September 12, 2011
  - C REVISED Table of Required Waivers
  - D Proposed Revisions To Compliance With Subsection 6.1.4 Not Requiring Waivers
  - E REVISED Draft Findings for Required Waivers
  - F Draft Special Conditions of Approval
  - G Draft minutes of public hearing on September 8, 2011 (included separately)
29. Letter dated September 23, 2011, from Attorney Glenn Stanko on behalf of Mary L. Mann, 2778 CR2500N, Penfield
30. Revised Draft Reclamation Agreement received September 28, 2011
31. Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011
32. Letter from Marvin Johnson, Compromise Township Highway Commissioner, and Greg Frerichs, Ogden Township Highway Commissioner received September 29, 2011

33. Supplemental Memorandum dated September 29, 2011, with attachments:
- A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B dated August 17, 2011
  - B Letter dated September 23, 2011, from Attorney Glenn Stanko on behalf of Mary L. Mann, 2778 CR2500N, Penfield
  - C REVISED Draft Reclamation Agreement received September 28, 2011 (included separately)
  - D REVISED Assessment of Compliance with 6.1.4 P. Standard Condition for Decommissioning Plan and Site Reclamation Agreement
  - E REVISED Table of Required Waivers
  - F Draft Findings for Waiver #6 regarding Township road agreements and Waiver #10 regarding the Reclamation Agreement
  - G Revised Draft Special Conditions of Approval
  - H Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011
  - I Letter from Marvin Johnson, Compromise Township Highway Commissioner, and Greg Frerichs, Ogden Township Highway Commissioner received September 29, 2011
  - L Preliminary Summary of Evidence, Finding of Fact, and Final Determination (included separately)
34. Court transcript of proceedings before the Illinois Pollution Control Board in *Knox vs. Turris* on June 11, 2002, submitted by Sherry Schildt on September 29, 2011
35. Handouts submitted by Kim Schertz on September 29, 2011:
- 1. *Eight Millions Dollars- What Each Wind Job in Illinois Costs Taxpayers*
  - 2. *'Green Jobs' vs. Real Energy Jobs* from the September 2, 2011, Wall Street Journal
  - 3. *Wind(less) power* from the September 19, 2011, Pittsburgh Tribune Review
36. GE Energy Setback Guidelines for Wind Turbine Siting received October 4, 2011
37. Draft Champaign County-California Ridge Wind Roads Agreement received October 5, 2011
38. Supplemental Memorandum dated October 6, 2011, with attachments:
- A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B dated August 17, 2011
  - B Draft Champaign County-California Ridge Wind Roads Agreement received October 5, 2011 (included separately)
  - C GE Energy Setback Guidelines for Wind Turbine Siting received October 4, 2011
  - D *The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis*. Ernesto Orlando Lawrence Berkeley National Laboratory. December 2009. (CD included separately; Executive Summary also included separately)
  - E Powerpoint presentation from *The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis*. Ernesto Orlando Lawrence Berkeley National Laboratory. December 2009. (included separately)



- F Letter dated October 6, 2011, from Tim Casey, HGR Acoustics Program Manager
  - G Revised Compliance With Subsection 6.1.4 I. Allowable Noise Level
  - H Letter dated October 6, 2011, to the ZBA from California Ridge Wind Energy, LLC (included separately)
  - I REVISED Draft Reclamation Agreement received October 6, 2011(included separately)
  - J Letter from James Booty dated October 6, 2011(included separately)
  - K Revised Decommissioning Costs received October 6, 2011(included separately)
39. Staff Handout Illustrating the Comparison of the Maximum IPCS Noise Limit (Single Number) With the Maximum Predicted Noise at Two Receptors with the Ambient Sound
40. Handouts submitted by Sherry Schildt on October 6, 2011:
- A Letter dated June 8, 2010, from Michael S. McCann, SRA, to Mike McLaughlin, Adams County Board
  - B Heintzelman, Martin D. and Carrie M. Tuttle. *Values in the Wind: A Hedonic Analysis of Wind Power Facilities*. March 3, 2011.
  - C *Wind Energy Production: Legal Issues and Related Liability Concerns for Landowners*. Iowa State University Center for Agricultural Law and Taxation. June 20, 2011.
  - D Sketch illustrating the height of the Schildt house compared to the height of a 492 feet tall wind turbine
41. Natural Resource Report for the California Ridge Wind Farm Champaign County, Illinois by the Champaign County Soil and Water Conservation District. October 6, 2011.
42. Supplemental Memorandum dated October 13, 2011, with attachments:
- A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B dated August 17, 2011
  - B email from Larry Mann received 10/13/11
  - C REVISED Draft Reclamation Agreement received October 13, 2011
  - D REVISED Assessment of Compliance with 6.1.4 P. Standard Condition for Decommissioning Plan and Site Reclamation Agreement
  - E Table of 32 Closest Dwellings and 32 Receptors With Loudest Noise Levels
  - F Revised Draft Special Conditions of Approval
  - G Excerpts from Natural Resource Report for the California Ridge Wind Farm Champaign County, Illinois by the Champaign County Soil and Water Conservation District. October 6, 2011. (included separately)
  - H Natural Resource Report for the California Ridge Wind Farm Champaign County, Illinois by the Champaign County Soil and Water Conservation District. October 6, 2011. (file on CD)
43. Exhibit 9 Decommissioning Plan for the New Grange Wind Farm received at the October 13, 2011, public hearing

AS APPROVED- RECOMMEND DENIAL

44. *Removal and Restoration Costs in California: Who Will Pay?* An article by Paul Gipe from the Wind-Works.org website received at the October 13, 2011, public hearing
45. Decommissioning Agreement for Bishop Hill Energy LLC in Henry County, Illinois received October 13, 2011
46. Bishop Hill Wind Energy Center WIND ENERGY PROJECT DECOMMISSIONING REPORT HENRY COUNTY, ILLNOIS by Invenergy. March 2010. Received October 13, 2011
47. Supplemental Memorandum dated October 19, 2011, with attachments:
  - A REVISED Draft Reclamation Agreement received October 18, 2011 (annotated)
  - B REVISED Draft Reclamation Agreement received October 18, 2011 (w/ Revised Base Decommissioning Cost Estimate received 10/06/11 and Appendix B from the Application)
  - C Exhibit 9 Decommissioning Plan for the New Grange Wind Farm received at the October 13, 2011, public hearing
  - D *Removal and Restoration Costs in California: Who Will Pay?* An article by Paul Gipe from the Wind-Works.org website received at the October 13, 2011, public hearing
48. Email from Mike Blazer to Joel Fletcher and John Hall at 1:35 PM on October 20, 2011
49. Supplemental Memorandum dated October 20, 2011, with attachments:
  - A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B dated August 17, 2011
  - B Supplemental Memorandum dated October 19, 2011 with attachments but without attachments C and D:
    - (a) REVISED Draft Reclamation Agreement received October 19, 2011 (annotated; included separately)
    - (b) REVISED Draft Reclamation Agreement received October 19, 2011 (w/ Revised Base Decommissioning Cost Estimate received 10/06/11 and Appendix B from the Application; included separately)
  - C REVISED Draft Reclamation Agreement received October 20, 2011 (annotated; included separately)
  - D REVISED Draft Assessment of Compliance with 6.1.4 P. Standard Condition for Decommissioning Plan and Site Reclamation Agreement
  - E REVISED Table of Required Waivers
  - F Draft & Preliminary Findings for Required Waivers
  - G Revised Draft Special Conditions of Approval
  - H Heintzelman, Martin D. and Carrie M. Tuttle. *Values in the Wind: A Hedonic Analysis of Wind Power Facilities*. July 15, 2011. (included separately)
  - I *Wind power sometimes hurts property values, Clarkson study says* Watertown Daily Times Wednesday, July 20, 2011.
  - J Partial Draft minutes of public hearing on October 13, 2011 (included separately)
  - K Revised Draft Summary of Evidence, Finding of Fact, and Final Determination (included separately)

**FINDINGS OF FACT**

From the documents of record and the testimony and exhibits received at the public hearing for zoning case 696-S-11 held on **August 25, 2011; September 1, 2011; September 8, 2011; September 29, 2011; October 6, 2011; October 13, 2011; and October 20, 2011**, the Zoning Board of Appeals of Champaign County finds that:

1. The requested Special Use Permit **SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN IS** necessary for the public convenience at this location because **it is advantageous to have the wind energy project at this specific location where the wind resource has been found appropriate for the use and the wind resource and the existing electrical grid are favorable for this wind farm project.**
2. The requested Special Use Permit **SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN** is so designed, located, and proposed to be operated so that it **WILL** be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare because:
  - a. The street has **ADEQUATE** traffic capacity and the entrance location has **ADEQUATE** visibility.
  - b. Emergency services availability is **ADEQUATE**.
  - c. The Special Use will be designed to **CONFORM** to all relevant County ordinances and codes.
  - d. The Special Use **WILL** be compatible with adjacent uses.
  - e. Surface and subsurface drainage will be **ADEQUATE**.
  - f. Public safety will be **ADEQUATE**.
  - g. **Noise impacts will be INJURIOUS to the District because of the difference of interpretation of the Illinois Pollution Control Board standards regarding measuring at the property line or the dwelling and in some instances there could be a violation.**
  - h. **The Reclamation Agreement provides INADEQUATE assurance for decommissioning the wind farm because of the possibility of that lienholder's collateral position could result in the County having to pay out of pocket to complete the decommissioning.**
- 3a. The requested Special Use Permit **SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN DOES** conform to the applicable regulations and standards of the DISTRICT in which it is located.

**AS APPROVED- RECOMMEND DENIAL**

FINDINGS OF FACT (continued)

- 3b. The requested Special Use Permit **SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN DOES** preserve the essential character of the DISTRICT in which it is located because:
  - a. The Special Use will be designed to **CONFORM** to all relevant County ordinances and codes.
  - b. The Special Use **WILL** be compatible with adjacent uses.
  - c. Public safety will be **ADEQUATE**.
  
4. The requested Special Use Permit **SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN IS** in harmony with the general purpose and intent of the Ordinance because:
  - a. The Special Use is authorized in the District.
  - b. The requested Special Use Permit **IS** necessary for the public convenience at this location.
  - c. The requested Special Use Permit **SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN** is so designed, located, and proposed to be operated so that it **WILL** be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare.
  - d. The requested Special Use Permit **SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN DOES** preserve the essential character of the DISTRICT in which it is located.
  
5. The requested Special Use **IS NOT** an existing nonconforming use.
  
6. Regarding necessary waivers of standard conditions:
  - A. Regarding the requested waiver of the standard condition **6.1.4 D. 1 (a) that requires certificates of design compliance from Underwriters Laboratories (“UL”) or equivalent third party:**
    - (1) The waiver **SUBJECT TO THE PROPOSED SPECIAL CONDITION IS** in accordance with the general purpose and intent of the Zoning Ordinance and **WILL NOT** be injurious to the neighborhood or to the public health, safety, and welfare because the certificate of design compliance is not the only certification of structural integrity but is related to product safety that is an operational concern rather than a structural concern and an additional structural certification will be required before the permit is approved.
  
    - (2) Special conditions and circumstances **DO** exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because the turbine that is proposed for use in the WIND FARM, the GE 1.6 -100 wind turbine, is a relatively new wind turbine and the manufacturer is still completing the design certification process.
  
    - (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied **WILL** prevent reasonable or otherwise permitted use of the land or structure or construction because the wind farm has been designed around the GE 1.6 -100 wind turbine and waiting to approve the special

FINDINGS OF FACT ITEM 6.A.(continued)

use permit until the certificate of design compliance is available will delay wind farm construction.

- (4) The special conditions, circumstances, hardships, or practical difficulties **DO NOT** result from actions of the applicant because the applicant is not involved in the design certification process.
- (5) The requested waiver **SUBJECT TO THE PROPOSED SPECIAL CONDITION IS** the minimum variation that will make possible the reasonable use of the land/structure because it will allow the WIND FARM to move ahead under construction but will not go into commercial operation without the certification of design compliance.

B. Regarding the waiver of the standard condition **6.1.4 F.1. that requires a signed Roadway Upgrade and Maintenance Agreement prior to the close of the public hearing before the Zoning Board of Appeals:**

- (1) The waiver **SUBJECT TO THE PROPOSED SPECIAL CONDITION IS** in accordance with the general purpose and intent of the Zoning Ordinance and **WILL NOT** be injurious to the neighborhood or to the public health, safety, and welfare because even though the County Engineer approves of the Draft county road agreement only the County Board can authorize a signature on the road agreement and County Board action on the County road agreement prior to consideration of the Special Use Permit could provide a public perception of prejudice.
- (2) Special conditions and circumstances **DO** exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because this is the first WIND FARM reviewed under the provisions of 6.1.4 and no other WIND FARM will have that burden.
- (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied **WILL** prevent reasonable or otherwise permitted use of the land or structure or construction because without the waiver the ZBA recommendation would be delayed at least one month which is an undue financial burden for the construction of the WIND FARM.
- (4) The special conditions, circumstances, hardships, or practical difficulties **DO NOT** result from actions of the applicant because the applicant has negotiated in good faith and the County road agreement is ready for approval.

**AS APPROVED- RECOMMEND DENIAL**

FINDINGS OF FACT ITEM 6.B.(continued)

- (5) The requested waiver **SUBJECT TO THE PROPOSED SPECIAL CONDITION IS** the minimum variation that will make possible the reasonable use of the land/structure because it is the minimum waiver necessary to allow the WIND FARM special use permit to move ahead without delay.
- C. Regarding the waiver of the standard condition **6.1.4 F.1.u. that requires street upgrades be in accordance with IDOT Bureau of Local Roads manual, 2005 edition:**
- (1) The requested waiver **SUBJECT TO THE PROPOSED SPECIAL CONDITION IS** in accordance with the general purpose and intent of the Zoning Ordinance and **WILL NOT** be injurious to the neighborhood or to the public health, safety, and welfare because:
    - i. under state law the relevant highway authority is responsible for providing both a safe and an efficient highway system and
    - ii. the special condition waives the BLR standards only when agreeable to the relevant highway authority and only so long as public safety is not compromised.
  - (2) Special conditions and circumstances **DO** exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because:
    - i. the existing rural road network must accommodate the proposed WIND FARM construction in an efficient and safe manner and
    - ii. the relevant highway authority will have the discretion to waive the BLR standards if unique circumstances are encountered in the construction of the WIND FARM or if a more efficient standard is available but
    - iii. the BLR standards can only be waived so long as public safety is not compromised.
  - (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied **WILL** prevent reasonable or otherwise permitted use of the land or structure or construction because without the waiver the resulting inefficiencies could be significant enough to pose an undue financial burden for the construction of the WIND FARM even though public safety would not be enhanced.
  - (4) The special conditions, circumstances, hardships, or practical difficulties **DO NOT** result from actions of the applicant because the special conditions are related to the existing highway conditions.

## FINDINGS OF FACT ITEM 6.C.(continued)

- (5) The requested waiver **SUBJECT TO THE PROPOSED SPECIAL CONDITION IS** the minimum variation that will make possible the reasonable use of the land/structure because the special condition allows the relevant highway authority to follow the most efficient methods so long as public safety is not compromised.
- D. Regarding the waiver of the standard condition **6.1.4 I. 1. that requires the noise level of each wind farm tower and wind farm to be in compliance with the Illinois Pollution Control Board regulations at the residential property line rather than to be compliance just at the dwelling:**
1. The waiver **IS NOT** in accordance with the general purpose and intent of the Zoning Ordinance and **WILL** be injurious to the neighborhood or to the public health, safety, and welfare because
    - i. there is some question about whether the noise regulations apply at the property line or the dwelling but the I.P.C.B. noise regulations are not regularly enforced by any state agency and so there is no official answer to that question; and
    - ii. the noise results submitted in the Application indicate that only 9 receptors are within approximately 3 decibels or less of the noise limit and the other 251 receptors are below the limit by more than 3 decibels; and
    - iii. for residential properties less than 5 acres in area the difference between the sound level at the property line versus the sound level at the dwelling is not likely to differ by much given the small distance involved and granting the waiver will not make much difference in the actual sound level; and
    - iv. the petitioner submitted evidence indicating that for larger properties the I.P.C.B. noise regulations apply at the dwelling; and
    - iv. it is more important to agree to a standard at this time that can be enforced by the County in the future if there are complaints rather than to debate whether the standard applies at the property line or the dwelling.
  - (2) Special conditions and circumstances **DO** exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because this is the first WIND FARM reviewed under the provisions of 6.1.4 and no other WIND FARM will have that burden.

**AS APPROVED- RECOMMEND DENIAL**

FINDINGS OF FACT ITEM 6.D.(continued)

- (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied **WILL** prevent reasonable or otherwise permitted use of the land or structure or construction because the Applicant has gone to great trouble and expense to plan the WIND FARM so as to comply with the Illinois Pollution Control Board (IPCB) regulations as they understand the regulations should be applied.
  - (4) The special conditions, circumstances, hardships, or practical difficulties **DO NOT** result from actions of the applicant because they result from a new Ordinance requirement that has not been thoroughly tested.
  - (5) The requested waiver **IS** the minimum variation that will make possible the reasonable use of the land/structure because it is the minimum waiver necessary to resolve the question regarding whether the IPCB noise regulation applies at the property line or the dwelling for small residential properties.
- E. Regarding the waiver of the standard condition **6.1.4 J. that requires the application to contain a copy of the Agency Action Report from the Illinois Department of Natural Resources Endangered Species Program:**
1. The waiver **IS** in accordance with the general purpose and intent of the Zoning Ordinance and **WILL NOT** be injurious to the neighborhood or to the public health, safety, and welfare because
    - i. in a July 13, 2011, email to John Hall, Keith Shank, Division of Ecosystems and Environment, Illinois Department of Natural Resources, stated that his letter to Champaign County dated September 21, 2009, which was identical to the letter dated December 4, 2009, would substitute for an Agency Action Report; and
    - ii. because the letter would substitute for a Agency Action Report the submission of the letter is virtually the same thing as submitting an Agency Action Report and submitting only the letter will be no more injurious to the public health, safety, and welfare than submitting an Agency Action Report.
  - (2) Special conditions and circumstances **DO** exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because the Applicant has consulted fully with the IDNR and it was more convenient for the IDNR to reply with a written letter rather than an Agency Action Report.
  - (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied **WILL** prevent reasonable or otherwise permitted use of the land or structure or construction because if the waiver is not granted the Applicant will have to request that IDNR staff take time to prepare an Agency Action Report and the resulting delay could be significant enough to pose an undue



FINDINGS OF FACT ITEM 6.E.(continued)

financial burden for the construction of the WIND FARM even though no public benefit would result and IDNR would incur greater cost.

- (4) The special conditions, circumstances, hardships, or practical difficulties **DO NOT** result from actions of the applicant because the Applicant consulted with the IDNR and the approach used in the IDNR review was the approach that IDNR wanted to use.
- (5) The requested waiver **IS** the minimum variation that will make possible the reasonable use of the land/structure because the IDNR has made it clear that the letter that was provided to Champaign County substitutes for an Agency Action Report.

F. Regarding the waiver of the standard condition **6.1.4 S.1.(c)(3) that requires that locations of wind turbines for the zoning use permit application cannot increase the noise impact over that approved in the special use permit:**

- (1) The waiver **SUBJECT TO THE PROPOSED SPECIAL CONDITION IS** in accordance with the general purpose and intent of the Zoning Ordinance and **WILL NOT** be injurious to the neighborhood or to the public health, safety, and welfare because there is only one allowable noise level and that is the noise level established in the Illinois Pollution Control Board (IPCB) regulations as established by 6.1.4 I.6.(a) and the requirement of 6.1.4 S.1.(c)(3) is in direct conflict with 6.1.4 I.6.(a).
- (2) Special conditions and circumstances **DO** exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district because this is the first WIND FARM reviewed under the provisions of 6.1.4 and no other WIND FARM will have that burden.
- (3) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied **WILL** prevent reasonable or otherwise permitted use of the land or structure or construction because the Applicant has gone to great trouble and expense to plan the WIND FARM so as to comply with the Illinois Pollution Control Board (IPCB) regulations as established by 6.1.4 I.6.(a) and not the lower noise levels that are incorrectly indicated by the reference to 6.1.4 S.1.(c)(3).
- (4) The special conditions, circumstances, hardships, or practical difficulties **DO NOT** result from actions of the applicant because they result from a new Ordinance requirement that has not been thoroughly tested.

FINDINGS OF FACT ITEM 6.F.(continued)

- (5) The requested waiver **SUBJECT TO THE PROPOSED SPECIAL CONDITION IS** the minimum variation that will make possible the reasonable use of the land/structure because it is the minimum waiver necessary to resolve the contradiction between 6.1.4 I.6.(a) and 6.1.4 S.1.(c)(3).

7. ***THE SPECIAL CONDITIONS IMPOSED HEREIN ARE REQUIRED TO ENSURE COMPLIANCE WITH THE CRITERIA FOR SPECIAL USE PERMITS AND FOR THE PARTICULAR PURPOSES DESCRIBED BELOW***

A. This special use permit authorizes a **WIND FARM** as follows:

1. The type of wind turbine authorized is the **General Electric 1.6-100** wind turbine with a hub height of 100 meters (328 feet) and a rotor diameter of 100 meters (328 feet).
2. The maximum overall height of each **WIND FARM TOWER** shall be 492 feet.
3. The maximum number of **WIND TURBINE TOWERS** (wind turbines) is 30 with a total nameplate capacity of not more than 48 megawatts (MW) of which not more than 28 **WIND FARM TOWERS** with a total nameplate capacity of not more than 44.8 MW are proposed in **Compromise Township (Part A)** and not more than 2 **WIND FARM TOWERS** with a total nameplate capacity of not more than 3.2 MW are proposed in **Ogden Township (Part B)**, and including access roads, wiring, and related work on specified public roads (highways).

The above special condition is required to ensure that:

The constructed **WIND FARM** is consistent with the special use permit approval.

B. Regarding the approved site plan:

**The approved site plan consists of the following documents:**

1. **California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011**
2. **Status Summary Map with Setbacks California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011 (an excerpt of only the Champaign County portion**
3. **Champaign County Non-Participating Dwelling Separation Summary map received July 29, 2011 Parcel**
4. **Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011**

The above special condition is required to ensure that:

The constructed **WIND FARM** is consistent with the special use permit approval.

FINDINGS OF FACT ITEM 7.(continued)

- C. Regarding the requested waiver of the standard condition of 6.1.4 F.1. that requires a signed Roadway Upgrade and Maintenance Agreement prior to the close of the public hearing before the Zoning Board of Appeals, the following special condition makes it clear that a signed Roadway Upgrade and Maintenance Agreement shall be required prior to any County Board decision on this special use permit:

**The County Board shall not make a final decision in Case 696-S-11 until it has authorized the County Board Chair to sign the Roadway Upgrade and Maintenance Agreement recommended by the County Engineer and received copies of all necessary signed township road agreements.**

The above special condition is required to ensure that:

All relevant highway jurisdictions are allowed to fulfill their responsibilities without unduly delaying a final decision in Case 696-S-11.

- D. Regarding the waiver of the standard condition 6.1.4 F.1.u. that requires street upgrades be in accordance with IDOT Bureau of Local Roads manual, 2005 edition:

**The Roadway Upgrade and Maintenance Agreements shall require road repair work to be performed in accordance with the IDOT Bureau of Local Roads Manual, 2006 edition, and the IDOT *Standard Specifications for Road and Bridge Construction*, but the relevant street jurisdiction may, on a case by case basis, exercise their discretion to waive the BLR standards so long as public safety is not compromised.**

The above special condition is required to ensure that:

Road use agreements ensure adequate public safety but also provide necessary flexibility in road repair work.

- E. Regarding the authorized hours of construction of the proposed WIND FARM:

**Construction activities to build the WIND FARM shall generally only occur during the weekday daytime hours of 7AM to 10PM but never on Sunday, provided, however, that construction activities may occasionally commence earlier in the day if required but not earlier than 5AM. Those construction activities include but are not limited to the following:**

- 1. Construction of access roads**
- 2. Delivery and unloading of WIND FARM equipment and materials**
- 3. Excavation for and construction of WIND FARM TOWER foundations**
- 4. Installation of WIND FARM wiring**
- 5. Assembly of WIND FARM turbines**
- 6. Erection of WIND FARM TOWERS**

FINDINGS OF FACT ITEM 7.E.(continued)

The above special condition is required to ensure that:

The affects of WIND FARM construction on neighbors is consistent with the special use permit approval.

- F. The Ordinance does not impose an ultimate limit on shadow flicker and neighbors who are predicted to receive no more than 30 hours of shadow flicker per year at the time of the special use permit public hearing (unless mitigated in some way) expect that the actual shadow flicker will not be much different. The following special condition will ensure that the actual shadow flicker will not be much different than the amount indicated in the public hearing:

**No NON- PARTICIPATING DWELLING or other PRINCIPAL STRUCTURE shall receive more than 45 hours of shadow flicker per year.**

The above special condition is required to ensure that:

The actual shadow flicker cast on non-participating neighbors is similar to the anticipated shadow flicker that was presented in the public hearing.

- G. Regarding the standard condition 6.1.4 R. that provides for expiration of the special use permit:

**This special use permit shall expire on the following dates and/ or for the following reasons:**

1. **If no zoning use permit application has been received by the Department of Planning and Zoning by 4:30PM on March 1, 2013, which is consistent with the expiration deadline in the Roadway Upgrade and Maintenance Agreements and the approved Reclamation Agreement; or**
2. **Upon completion of all decommissioning and reclamation requirements of the WIND FARM Reclamation Agreement and the subsequent release of the financial assurance required by 6.1.4 P. following the requirements of a written agreement with the COUNTY.**

The above special condition is required to ensure that:

The ultimate limits of the special use permit are clearly defined and consistent with the Ordinance requirements and the special use permit approval.

## FINDINGS OF FACT ITEM 7.H.(continued)

H. The following conditions will help ensure that WIND FARM TOWERS are located and constructed in conformance with the approved site plan:

1. **The Zoning Administrator shall not approve a Zoning Use Permit for construction of a WIND FARM TOWER if the location indicated on the Zoning Use Permit site plan differs from that in the approved site plan for the special use permit as follows:**
  - (a) **The Zoning Use Permit location shall not differ more than 500 feet from the approved site plan for the special use permit except that a WIND FARM TOWER more than 1,500 feet from a non-participating PRINCIPAL STRUCTURE on the approved site plan for the special use permit shall not be approved to be less than 1,350 feet from that same STRUCTURE on a Zoning Use Permit; and provided that**
  - (b) **A WIND FARM TOWER that is 1,500 feet or less from a non-participating PRINCIPAL STRUCTURE on the approved site plan for the special use permit shall not be located less than 90% of that distance to the same STRUCTURE on a Zoning Use Permit; and provided that**
  - (c) **A new noise analysis meeting the requirement of 6.1.4 I. shall be submitted with the Zoning Use Permit for any WIND FARM TOWER with a new location that is less than 1,500 from a non-participating PRINCIPAL STRUCTURE; and provided that**
  - (d) **No separation to a non-participating property or PRINCIPAL STRUCTURE shall be less than the minimum required by the Ordinance.**
2. **Prior to excavation for any WIND FARM TOWER footing:**
  - (a) **The Applicant shall notify the Zoning Administrator when each WIND FARM TOWER location has been identified and marked on the ground so that the Zoning Administrator or a representative can verify that the location is consistent with the approved site plan in the special use permit case.**
  - (b) **The Zoning Administrator shall issue a WIND FARM TOWER Foundation Permit after verifying that the WIND FARM TOWER location is consistent with the approved site plan.**
  - (c) **The Applicant shall not excavate any WIND FARM TOWER footing until the WIND FARM TOWER Foundation Permit has been approved.**

**AS APPROVED- RECOMMEND DENIAL**

FINDINGS OF FACT ITEM 7.H.(continued)

The above special conditions are required to ensure that:

The WIND FARM TOWERS are located in general conformance with the assertions and studies documented in the California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011, and that the Applicant has some flexibility for optimizing location based on circumstances at each WIND FARM TOWER site.

I. Regarding the approved Reclamation Agreement:

**A Reclamation Agreement is required at the time of application for a zoning use permit that complies with the following:**

- 1. The Revised Draft Reclamation Agreement received on 10/20/11 with all required signatures including a guaranteed minimum amount of \$25,000 that shall be updated annually to reflect the known rate of inflation.**
- 2. The expenses and values, including salvage value, as listed in the Base Decommissioning Cost Estimate received 10/06/11 and that is Attachment A to the Draft Reclamation Agreement received on 10/20/11.**
- 3. An irrevocable letter of credit. If required by the County Board the letter of credit shall be provided as multiple letters of credit based on the regulations governing federal insurance for deposit as authorized in 6.1.4 P. 4. (a) of the Ordinance.**
- 4. An escrow account that is at a mutually acceptable financial institution that is either identified in the County Board determination of this special use permit or included as a special condition of that determination, as authorized in 6.1.4 P. 4. (b)(1) of the Ordinance.**

The above special conditions are required to ensure that:

The special use permit complies with Ordinance requirements and as authorized by waiver.

J. Regarding specific submittals required prior to the approval of a zoning use permit to authorize construction of the WIND FARM:

**The following submittals are required prior to the approval of any zoning use permit for a WIND FARM TOWER:**

- 1. Certification by an Illinois Professional Engineer or Illinois Licensed Structural Engineer that the foundation and tower design of each WIND FARM TOWER is within accepted professional standards, given local soil and climate conditions, as required by 6.1.4 D.1.(b).**

FINDINGS OF FACT ITEM 7.J.(continued)

2. **A Transportation Impact Analysis provided by the applicant that is acceptable to the County Engineer and the State's Attorney; and for highways in Compromise Township is acceptable to the Compromise Township Highway Commissioner; and for highways in Ogden Township is acceptable to the Ogden Township Highway Commissioner, as required by 6.1.4 F. 2..**
3. **A signed Reclamation Agreement in conformance with all special conditions and waivers included in the special use permit approval.**
4. **A copy of the Recorded Covenant pursuant to 6.1.1 A.2.**
5. **The telephone number for the complaint hotline required by 6.1.4 Q.**
6. **A site plan for the installation of the specific WIND FARM TOWER indicating the specific proposed location of the WIND FARM TOWER, other PRINCIPAL STRUCTURES within 1,500 feet separation, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substations(s), and layout of all structures within the geographical boundaries of any applicable setback.**
7. **A copy of the approved access permit for the access road by the relevant highway jurisdiction.**
8. **A copy of any required permits for use of public highways by overweight vehicles.**
9. **A permanent soil erosion and sedimentation plan for all WIND FARM TOWER sites and access roads that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.**

The above special condition is required to ensure that:

The WIND FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

FINDINGS OF FACT ITEM 7.K.(continued)

- K. The following special condition makes it clear that a Zoning Compliance Certificate will be required to document that each WIND FARM TOWER was constructed in conformance with the approved site plan:

**A Zoning Compliance Certificate shall be required for each WIND FARM TOWER prior to the WIND FARM going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:**

- 1. An as-built site plan of each specific WIND FARM TOWER indicating the specific as-built location of the WIND FARM TOWER, other PRINCIPAL STRUCTURES within 1,500 feet separation, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substations(s), and layout of all structures within the geographical boundaries of any applicable setback.**
- 2. As-built documentation of all permanent soil erosion and sedimentation improvements for all WIND FARM TOWER sites and access roads prepared by an Illinois Licensed Professional Engineer.**
- 3. A copy of the approved as-built access road by the relevant highway jurisdiction.**

The above special condition is required to ensure that:

The WIND FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

- M. The following special condition makes it clear that a Zoning Compliance Certificate will be required to document that the entire WIND FARM complies with the specific requirements that apply to the overall WIND FARM as follows:

**The California Ridge WIND FARM shall not begin commercial production of energy until the Zoning Administrator has approved a Zoning Compliance Certificate for the entire California Ridge WIND FARM based on submission and acceptance of all of the following:**

- 1. A Zoning Compliance Certificate has been approved for all WIND FARM TOWERS approved in the Special Use Permit.**
- 2. A copy of a certificate of design compliance for the General Electric 1.6-100 wind turbine has been received from Underwriters Laboratories (“UL”) or an equivalent third party such as TUV NORD Group, as authorized in 6.1.4 D. 1 (a).**



FINDINGS OF FACT ITEM 7.L.(continued)

3. **Documentation of compliance with all required post-WIND FARM construction requirements has been received from the relevant highway jurisdictions.**
4. **The Zoning Administrator has verified that informational signs have been erected at each WIND FARM accessway as follows:**
  - a. **The purpose of the signs shall be to publicize the telephone number of the WIND FARM complaint hotline required by 6.1.4 Q.**
  - b. **The minimum size of each sign shall be 2 feet by 2 feet.**

The above special condition is required to ensure that:

WIND FARM turbines are certified to meet relevant industry safety standards and the entire WIND FARM complies with the special use permit approval before it begins commercial operation.

- N. Regarding specific requirements that apply even after the WIND FARM goes into commercial operation:

**The Applicant or Owner or Operator of the WIND FARM shall comply with the following:**

1. **Cooperate with local fire protection districts to develop the districts emergency response plan as required by 6.1.4 G.2.**
2. **Take all reasonable steps to resolve complaints of interference caused by the WIND FARM to microwave transmission providers, local emergency service providers (911 operators), and broadcast residential television as required by 6.1.4 H.**
3. **Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.4 I.6.**
4. **Complete all post-WIND FARM construction mortality studies on birds and bats as required by 6.1.4 L.3. and as proposed in the *California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011* particularly pages 5-22 through 5-24, and submit written reports to the Environment and Land Use Committee at the end of the first two years of WIND FARM operation and cooperate with the Environment and Land Use Committee in resolving mortality concerns that might arise as required by 6.1.4 L. 3(e).**

FINDINGS OF FACT ITEM 7.M.(continued)

5. **Maintain a current general liability policy as required by 6.1.4 N.**
6. **Submit annual operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.4 O.1.**
7. **Maintain compliance with the approved Reclamation Agreement including replacement irrevocable commercial letters of credit as required in the Reclamation Agreement.**
8. **Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.4 Q.**

The above special condition is required to ensure that:

The future requirements for the Applicant or Owner or Operator of the WIND FARM are clearly identified.

**FINAL DETERMINATION**

The Champaign County Zoning Board of Appeals finds that, based upon the application, testimony, and other evidence received in this case, that the requirements for approval of Section 9.1.11B. **HAVE NOT** been met, and pursuant to the authority granted by Section 9.1.6 B. of the Champaign County Zoning Ordinance, determines that:

The Special Use requested in Case 696-S-11 is hereby **DENIED** to the petitioners **California Ridge Wind Energy LLC and the participating landowners listed in the attached public notice to authorize a Wind Farm consisting of 30 Wind Farm Towers (wind turbines) in total with a total nameplate capacity of 48 megawatts (MW) in the AG-1 Zoning District of which 28 Wind Farm Towers with a total nameplate capacity of 44.8 MW are proposed in Compromise Township (Part A) and 2 Wind Farm Towers with a total nameplate capacity of 3.2 MW are proposed in Ogden Township (Part B), and including access roads, wiring, and public road improvements, subject waivers of standard conditions and special conditions of approval, as follows:**

**I. WAIVERS OF STANDARD CONDITIONS**

- A. Waiver of the standard condition 6.1.4 D. 1 (a) that requires certificates of design compliance from Underwriters Laboratories (“UL”) or equivalent third party.**
- B. Waiver of the standard condition 6.1.4 F.1. that requires a signed Roadway Upgrade and Maintenance Agreement prior to the close of the public hearing before the Zoning Board of Appeals.**
- C. Waiver of the standard condition 6.1.4 F.1.u. that requires street upgrades be in accordance with IDOT Bureau of Local Roads manual, 2005 edition.**
- D. Waiver of the standard condition 6.1.4 I. 1. that requires the noise level of each wind farm tower and wind farm to be in compliance with the Illinois Pollution Control Board regulations at the residential property line rather than to be compliance just at the dwelling.**
- E. Waiver of the standard condition 6.1.4 J. that requires the application to contain a copy of the Agency Action Report from the Illinois Department of Natural Resources Endangered Species Program.**
- F. waiver of the standard condition 6.1.4 S.1.(c)(3) that requires that locations of wind turbines for the zoning use permit application cannot increase the noise impact over that approved in the special use permit.**

**II. SPECIAL CONDITIONS:**

- A. This special use permit authorizes a WIND FARM as follows:**
- 1. The type of wind turbine authorized is the General Electric 1.6-100 wind turbine with a hub height of 100 meters (328 feet) and a rotor diameter of 100 meters (328 feet).**
  - 2. The maximum overall height of each WIND FARM TOWER shall be 492 feet.**
  - 3. The maximum number of WIND TURBINE TOWERS (wind turbines) is 30 with a total nameplate capacity of not more than 48 megawatts (MW) of which not more than 28 WIND FARM TOWERS with a total nameplate capacity of not more than 44.8 MW are proposed in Compromise Township (Part A) and not more than 2 WIND FARM TOWERS with a total nameplate capacity of not more than 3.2 MW are proposed in Ogden Township (Part B), and including access roads, wiring, and related work on specified public roads (highways).**
- B. The approved site plan consists of the following documents:**
- 1. California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011**
  - 2. Status Summary Map with Setbacks California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011 (an excerpt of only the Champaign County portion**
  - 3. Champaign County Non-Participating Dwelling Separation Summary map received July 29, 2011 Parcel**
  - 4. Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011**
- C. The County Board shall not make a final decision in Case 696-S-11 until it has authorized the County Board Chair to sign the Roadway Upgrade and Maintenance Agreement recommended by the County Engineer and received copies of all necessary signed township road agreements.**
- D. The Roadway Upgrade and Maintenance Agreements shall require road repair work to be performed in accordance with the IDOT Bureau of Local Roads Manual, 2006 edition, and the IDOT *Standard Specifications for Road and Bridge Construction*, but the relevant street jurisdiction may, on a case by case basis, exercise their discretion to waive the BLR standards so long as public safety is not compromised.**

- E. **Construction activities to build the WIND FARM shall generally only occur during the weekday daytime hours of 7AM to 10PM but never on Sunday, provided, however, that construction activities may occasionally commence earlier in the day if required but not earlier than 5AM. Those construction activities include but are not limited to the following:**
1. **Construction of access roads**
  2. **Delivery and unloading of WIND FARM equipment and materials**
  3. **Excavation for and construction of WIND FARM TOWER foundations**
  4. **Installation of WIND FARM wiring**
  5. **Assembly of WIND FARM turbines**
  6. **Erection of WIND FARM TOWERS**
- F. **No NON- PARTICIPATING DWELLING or other PRINCIPAL STRUCTURE shall receive more than 45 hours of shadow flicker per year.**
- G. **This special use permit shall expire on the following dates and/ or for the following reasons:**
1. **If no zoning use permit application has been received by the Department of Planning and Zoning by 4:30PM on March 1, 2013, which is consistent with the expiration deadline in the Roadway Upgrade and Maintenance Agreements and the approved Reclamation Agreement; or**
  2. **Upon completion of all decommissioning and reclamation requirements of the WIND FARM Reclamation Agreement and the subsequent release of the financial assurance required by 6.1.4 P. following the requirements of a written agreement with the COUNTY.**
- H. **To ensure that WIND FARM TOWERS are located and constructed in conformance with the approved site plan:**
1. **The Zoning Administrator shall not approve a Zoning Use Permit for construction of a WIND FARM TOWER if the location indicated on the Zoning Use Permit site plan differs from that in the approved site plan for the special use permit as follows:**
    - (a) **The Zoning Use Permit location shall not differ more than 500 feet from the approved site plan for the special use permit except that a WIND FARM TOWER more than 1,500 feet from a non-participating PRINCIPAL STRUCTURE on the approved site plan for the special use permit shall not be approved to be less than 1,350 feet from that same STRUCTURE on a Zoning Use Permit; and provided that**

**AS APPROVED- RECOMMEND DENIAL**

- (b) **A WIND FARM TOWER that is 1,500 feet or less from a non-participating PRINCIPAL STRUCTURE on the approved site plan for the special use permit shall not be located less than 90% of that distance to the same STRUCTURE on a Zoning Use Permit; and provided that**
  - (c) **A new noise analysis meeting the requirement of 6.1.4 I. shall be submitted with the Zoning Use Permit for any WIND FARM TOWER with a new location that is less than 1,500 from a non-participating PRINCIPAL STRUCTURE; and provided that**
  - (d) **No separation to a non-participating property or PRINCIPAL STRUCTURE shall be less than the minimum required by the Ordinance.**
- 2. **Prior to excavation for any WIND FARM TOWER footing:**
  - (a) **The Applicant shall notify the Zoning Administrator when each WIND FARM TOWER location has been identified and marked on the ground so that the Zoning Administrator or a representative can verify that the location is consistent with the approved site plan in the special use permit case.**
  - (b) **The Zoning Administrator shall issue a WIND FARM TOWER Foundation Permit after verifying that the WIND FARM TOWER location is consistent with the approved site plan.**
  - (c) **The Applicant shall not excavate any WIND FARM TOWER footing until the WIND FARM TOWER Foundation Permit has been approved.**
- I. **A Reclamation Agreement is required at the time of application for a zoning use permit that complies with the following:**
  - 1. **The Revised Draft Reclamation Agreement received on 10/20/11 with all required signatures including a guaranteed minimum amount of \$25,000 that shall be updated annually to reflect the known rate of inflation.**
  - 2. **The expenses and values, including salvage value, as listed in the Base Decommissioning Cost Estimate received 10/06/11 and that is Attachment A to the Draft Reclamation Agreement received on 10/20/11.**

3. An irrevocable letter of credit. If required by the County Board the letter of credit shall be provided as multiple letters of credit based on the regulations governing federal insurance for deposit as authorized in 6.1.4 P. 4. (a) of the Ordinance.
  4. An escrow account that is at a mutually acceptable financial institution that is either identified in the County Board determination of this special use permit or included as a special condition of that determination, as authorized in 6.1.4 P. 4. (b)(1) of the Ordinance.
- J. The following submittals are required prior to the approval of any zoning use permit for a WIND FARM TOWER:
1. Certification by an Illinois Professional Engineer or Illinois Licensed Structural Engineer that the foundation and tower design of each WIND FARM TOWER is within accepted professional standards, given local soil and climate conditions, as required by 6.1.4 D.1.(b).
  2. A Transportation Impact Analysis provided by the applicant that is acceptable to the County Engineer and the State's Attorney; and for highways in Compromise Township is acceptable to the Compromise Township Highway Commissioner; and for highways in Ogden Township is acceptable to the Ogden Township Highway Commissioner, as required by 6.1.4 F. 2..
  3. A signed Reclamation Agreement in conformance with all special conditions and waivers included in the special use permit approval.
  4. A copy of the Recorded Covenant pursuant to 6.1.1 A.2.
  5. The telephone number for the complaint hotline required by 6.1.4 Q.
  6. A site plan for the installation of the specific WIND FARM TOWER indicating the specific proposed location of the WIND FARM TOWER, other PRINCIPAL STRUCTURES within 1,500 feet separation, property lines (including identification of adjoining properties), required separations, public access roads and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substations(s), and layout of all structures within the geographical boundaries of any applicable setback.
  7. A copy of the approved access permit for the access road by the relevant highway jurisdiction.
  8. A copy of any required permits for use of public highways by overweight vehicles.

**AS APPROVED- RECOMMEND DENIAL**

9. **A permanent soil erosion and sedimentation plan for all WIND FARM TOWER sites and access roads that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.**
- K. A Zoning Compliance Certificate shall be required for each WIND FARM TOWER prior to the WIND FARM going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:**
1. **An as-built site plan of each specific WIND FARM TOWER indicating the specific as-built location of the WIND FARM TOWER, other PRINCIPAL STRUCTURES within 1,500 feet separation, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the WIND FARM TOWER to the Substations(s), and layout of all structures within the geographical boundaries of any applicable setback.**
  2. **As-built documentation of all permanent soil erosion and sedimentation improvements for all WIND FARM TOWER sites and access roads prepared by an Illinois Licensed Professional Engineer.**
  3. **A copy of the approved as-built access road by the relevant highway jurisdiction.**
- L. The California Ridge WIND FARM shall not begin commercial production of energy until the Zoning Administrator has approved a Zoning Compliance Certificate for the entire California Ridge WIND FARM based on submission and acceptance of all of the following:**
1. **A Zoning Compliance Certificate has been approved for all WIND FARM TOWERS approved in the Special Use Permit.**
  2. **A copy of a certificate of design compliance for the General Electric 1.6-100 wind turbine has been received from Underwriters Laboratories (“UL”) or an equivalent third party such as TUV NORD Group, as authorized in 6.1.4 D. 1 (a).**
  3. **Documentation of compliance with all required post-WIND FARM construction requirements has been received from the relevant highway jurisdictions.**



4. The Zoning Administrator has verified that informational signs have been erected at each WIND FARM accessway as follows:
    - a. The purpose of the signs shall be to publicize the telephone number of the WIND FARM complaint hotline required by 6.1.4 Q.
    - b. The minimum size of each sign shall be 2 feet by 2 feet.
- M. The Applicant or Owner or Operator of the WIND FARM shall comply with the following:
1. Cooperate with local fire protection districts to develop the districts emergency response plan as required by 6.1.4 G.2.
  2. Take all reasonable steps to resolve complaints of interference caused by the WIND FARM to microwave transmission providers, local emergency service providers (911 operators), and broadcast residential television as required by 6.1.4 H.
  3. Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.4 I.6.
  4. Complete all post-WIND FARM construction mortality studies on birds and bats as required by 6.1.4 L.3. and as proposed in the *California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011* particularly pages 5-22 through 5-24, and submit written reports to the Environment and Land Use Committee at the end of the first two years of WIND FARM operation and cooperate with the Environment and Land Use Committee in resolving mortality concerns that might arise as required by 6.1.4 L. 3(e).
  5. Maintain a current general liability policy as required by 6.1.4 N.
  6. Submit annual operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.4 O.1.
  7. Maintain compliance with the approved Reclamation Agreement including replacement irrevocable commercial letters of credit as required in the Reclamation Agreement.
  8. Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.4 Q.

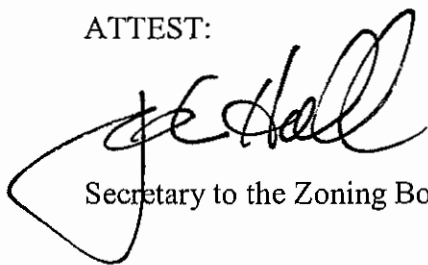
The foregoing is an accurate and complete record of the Findings and Determination of the Zoning Board of Appeals of Champaign County.

SIGNED:



Eric Thorsland, Chair  
Champaign County Zoning Board of Appeals

ATTEST:



Secretary to the Zoning Board of Appeals

Date 10/25/11

**ATTACHMENT: LIST OF PARTICIPATING LAND OWNERS AND RELEVANT PROPERTIES****PART A COMPROMISE TOWNSHIP**

**Section 19, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 19, with exceptions. A total of 6 Wind Farm Towers (wind turbines) are proposed in Section 19 as follows:

- 2 Wind Farm Towers are proposed in the Northwest Quarter of Section 19 on a 209.15 acre tract owned by G & E Farms, Inc., POB 35, Gifford, IL 61847-0335;
- 1 Wind Farm Tower is proposed in the Northeast Quarter of Section 19 on a 66 acre tract owned by William Pflugmacher, 333 Eiler Drive, Gifford, IL 61847-9727;
- 1 Wind Farm Tower is proposed in the Northeast Quarter of Section 19 on a 65.63 acre tract owned by Eric Suits, 2655 CR 2600E, Penfield, IL 61862;
- 1 Wind Farm Tower is proposed in the East Half of the Southwest Quarter of Section 19 on a 30 acre parcel owned by Louise Fruhling, 31361 N 750 East Rd, Potomac, IL 61865-6601;
- 1 Wind Farm Tower is proposed in the North Half of the Southeast Quarter of Section 19 on an 80 acre parcel owned by Loretta Fruhling/ Fruhling Family Trust, 388 Gibbs Drive, Rantoul, IL 61866

Other participating landowners in Section 19 are the following:

John Fruhling, 2499 CR 2600N, Penfield, IL 61862  
 Roy and Barbara Johnson, 2640 CR 2500E, Penfield, IL 61862  
 Robert and Dorene Pflugmacher, 866E CR 2250N, Ogden, IL 61859-9602  
 Greg Frerichs, 2506 CR2300N, Ogden IL 61859

**Section 20, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes an 80 acre tract of land in the West Half of the Northwest Quarter of Section 20 and an 80 acre tract of land in the South Half of the Southwest Quarter of Section 20 and a 157.98 acre tract of land in the Southeast Quarter of Section 20.

Participating landowners in Section 20 are the following:

Michael Babb, 2635 CR 2700E, Penfield, IL 61862  
 Marsha Gates, POB 704, Tolono, IL 61880  
 G & E Farms, Inc., 502 S. Main St. POB 35, Gifford, IL 61847-9713

**Section 21, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes the Southwest Quarter of Section 21. Participating landowners in Section 21 are the following:

Derald and Florene Ackerman, 519 South Main Street, Gifford, IL 61847-9713  
 Kenneth and Rosetta Suits, 2738 CR 2600N, Penfield, IL 61862  
 Rosetta Suits, 2738 CR 2600N, Penfield, IL 61862

**AS APPROVED- RECOMMEND DENIAL**

**Section 24, T21N, R10E of the 3<sup>rd</sup> P.M., Compromise Township.** The Special Use Permit includes the South Third of the Northwest Quarter and the Southwest Quarter. Participating landowners in Section 24 are the following:

Derald and Florene Ackerman, 519 South Main Street, Gifford, IL 61847-9713  
Kenneth and Rosetta Suits, 2738 CR 2600N, Penfield, IL 61862

**Section 25, T21N, R10E of the 3<sup>rd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 25 with exceptions. A total of 2 Wind Farm Towers (wind turbines) are proposed in Section 25 as follows:

- 2 Wind Farm Towers are proposed on an 80 acre parcel in the South Half of the Southeast Quarter of Section 25 on land owned by the Mary Ruth Elfe Revocable Trust and Charlotte R. Van Blokland Trust, aka Tate Farm #3/Busey Ag Services, 3002 West Windsor Road, Champaign, IL 61822

Other participating landowners in Section 25 are the following:

Russell and Marilyn Buhr, 2594 CR 2300E, Gifford, IL 61847-9740  
Vernon and Wilma Buhr, 2152 CR 2400N, St. Joseph, IL 61873  
Luella Busboom, 2258 CR 2500N, St. Joseph, IL 61873  
Maury Busboom, POB 131, Royal, IL 61871  
Roger and Betty Gronewald, 508 E Main POB 117, Royal, IL 61871  
Erna Hinrichs, 1037 Englewood Drive, Rantoul IL 61866  
Darrell and Marilyn Mennenga, 5205 Beech Ridge Road, Nashville, TN 37221  
David and Danita Uken, 2146 CR 2100N, St. Joseph, IL 61873

**Section 28, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 28 with exceptions. A total of 3 Wind Farm Towers (wind turbines) are proposed in Section 28 as follows:

- 1 Wind Farm Tower is proposed on a 62.54 acre parcel in the Northeast Quarter of Section 28 on land owned by Kenneth Suits, 2738 CR 2600N, Penfield, IL 61862
- 1 Wind Farm Tower is proposed on an 80 acre parcel being the East Half of the Southwest Quarter of Section 28 on land owned by Michael O'Neill, POB 236, Philo, IL 61864
- 1 Wind Farm Tower is proposed on a 70.26 acre parcel in the East Half of the Southeast Quarter of Section 28 on land owned by Roy and Barbara Johnson, 2640 CR 2500E, Penfield, IL 61862

Other participating landowners in Section 28 are the following:

Michelle Babb, 2635 CR 2700E, Penfield, IL 61862  
Alice Buck c/o Steve Buck, 609 Bayshore Drive, #9, Ft. Lauderdale, FL 33304  
Steve Buck, 609 Bayshore Drive, #9, Ft. Lauderdale, FL 33304  
Alice Cain Heirs c/o Steve Cain, POB 103, Philo, IL 61864  
Gary Hovel, 2518 CR 2600E, Penfield, IL  
Claas Hovel, 2971 CR 2700E, Penfield, IL  
Jeffrey Suits, 2703 CR 2500N, Penfield, IL 61862  
Union Pacific Railroad, 1400 Douglas, Stop 1640, Omaha, NE 61879

**Section 29, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 29, with exceptions. One Wind Farm Tower (wind turbine) is proposed in Section 29 as follows:

- 1 Wind Farm Tower is proposed on a 75 acre tract in the North Half of the Southeast Quarter of Section 29 on land owned by Velma Werner, 312 Penny Lane, Peotone, IL 60468

Other participating landowners in Section 29 are the following:

Albers Farm c/o Sandra J. King, POB 562, St. Joseph, IL 61872

Dick Albers, POB 213, Royal, IL 61871

Thomas and Patricia Buck, 2321 CR 2900N, Gifford, IL 61847

Bruinius Family Limited Partnership, 7723 W. Stuenkel Rd., Frankfort, IL 60423

Franzen Family Living Trust, 861 CR 900E, Tolono, IL 61880

Edgar and Sharon Hovel, 408 Moraine Dr., Rantoul, IL 61866

Gary Hovel, Trustee, 2518 CR 2600E, Penfield, IL 61862

Kenneth and Rosetta Suits, 2738 CR 2600N, Penfield, IL 61862

**Fractional Section 30, T21N, R11E, of the 3<sup>rd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Fractional Section 30, with exceptions. A total of 5 Wind Farm Towers (wind turbines) are proposed in Fractional Section 30 as follows:

- 1 Wind Farm Tower is proposed on a 60.86 acre parcel in the North Half of the South Half of Fractional Section 30 on land owned by Kay and John Fiscus, 105 Thomas Dr., St. Joseph, IL 61873
- 2 Wind Farm Towers are proposed on an 80 acre tract in the Southwest Quarter of Fractional Section 30 on land owned by Annette Brya Edwards c/o Busey Bank Ag Services, POB 107, Leroy, IL 61752
- 1 Wind Farm Tower is proposed on a 62.66 acre parcel in the East Half of Fractional Section 30 on land owned by Marvin and Pamela Ideus, 401 Eden Park Dr., Rantoul, IL 61866
- 1 Wind Farm Tower is proposed on an 80 acre parcel in the Southeast Quarter of Fractional Section 30 owned by Roseann Clifford, 2008 Sunview Dr., Champaign, IL 61821

Other participating landowners in Fractional Section 30 are the following:

Lois and Herbert Frerichs, POB 25, Royal, IL 61871

Alfred and Lorine Ideus, 2124 CR 2400N, St. Joseph, IL 61873

Roy and Barbara Johnson, 2640 CR 2500E, Penfield, IL 61862

**Section 30, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 30 except the Northwest Quarter. A total of 3 Wind Farm Towers (wind turbines) are proposed in this Section 30 as follows:

- 1 Wind Farm Tower is proposed on an 80 acre parcel being the West Half of the Northeast Quarter of Section 30 on land owned by the Michael and Eileen Jarboe Trust, 2792 CR 2400N, Penfield, IL 61862

**AS APPROVED- RECOMMEND DENIAL**

- 1 Wind Farm Tower is proposed on a 53.33 acre parcel located in the Northeast Quarter of the Southwest Quarter and the Northwest Quarter of the Southeast Quarter of Section 30 on land owned by Robert and Dorene Pflugmacher, 866E CR 2250N, Ogden, IL 61859-9602
- 1 Wind Farm Tower is proposed on an 80 acre parcel being the West Half of the Southwest quarter of Section 30 on land owned by Vernon and Wilma Buhr, 2152 CR 2400N, St. Joseph, IL 61873

Other participating landowners in this Section 30 are the following:

John Blue, 2148 CR 2650E, Ogden, IL 61859

Daniel and Amy Cain, 2567 CR 2600E, Penfield, IL 61862

Edgar and Sharon Hovel, 408 Moraine Dr., Rantoul, IL 61866

Evelyn Suits, 2331 CR 2000E, Urbana, IL 61802

Robert and Dorene Pflugmacher, 866E CR 2250N, Ogden, IL 61859-9602

**Fractional Section 31, T21N, R11E of the 3<sup>rd</sup> P.M., Compromise Township.** The Special Use Permit includes the North Half of the Fractional Section 31 and the North Half of the Fractional Southwest Quarter of Fractional Section 31 and the East Half of the Southeast Quarter of Fractional Section 31. One Wind Farm Tower (wind turbine) is proposed in Fractional Section 31 as follows:

- 1 Wind Farm Tower is proposed on a 140 acre parcel in the Northeast Quarter of Fractional Section 31 on land owned by Larry Foster, 28012 State Route 49, Armstrong, IL 61812

Other participating landowners in Fractional Section 31 are the following:

Mary Ruth Elfe Revocable Trust and Charlotte R. Van Blokland Trust, aka Tate Farm #3/Busey Ag Services, 3002 West Windsor Road, Champaign, IL 61822

John Blue, 2148 CR 2650E, Ogden, IL 61859

Judith E. Kopmann, POB 7, Royal, IL 61871

Douglas Walker and Susan Kingston, 1111 Stockholm Rd., Paxton, IL 60957

**Section 31, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes the North Half of Section 31 and the Southwest Quarter of the Southeast Quarter of Section 31. One Wind Farm Tower (wind turbine) is proposed in this Section 31 as follows:

- 1 Wind Farm Tower is proposed on an 80 acre parcel being the East Half of the Northeast Quarter of Section 31 on land owned by the LaVeda Pollack Trust c/o Kalin Kocher, 2455 CR 2600E, Penfield, IL 61862

Other participating landowners in this Section 31 are the following:

Larry Frerichs, 2474 CR 2500E, Penfield, IL 61862

Evelyn Suits, 2331 CR 2000E, Urbana, IL 61802

Carl and Jane Udovich, 3526 Bankview Dr., Joliet, IL 60431

**Section 32, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 32 except a 1.10 acre tract of land located in the West Half

of the Northwest Quarter of Section 32. Participating landowners in Section 32 are the following:

Brian Loschen, 2692 CR 2300N, Ogden, IL 61859  
Illini FS, Inc., 1509 E. University Avenue, Urbana, IL 61802  
Union Pacific Railroad, 1400 Douglas, Stop 1640, Omaha, NE 61879  
Wendy M. Heeren Trust, 50 Maywood Dr., Danville, IL 61832  
Arnold & Delores Loschen Trusts, 2654 CR 2400N, Ogden, IL 61859

**Section 33, T21N, R14W of the 2<sup>nd</sup> P.M., Compromise Township.** The Special Use Permit includes all of Section 33, with exceptions. A total of 3 Wind Farm Towers (wind turbines) are proposed in this Section 30 as follows:

- 1 Wind Farm Tower is proposed on a 40 acre parcel being the Northeast Quarter of the Northwest Quarter of Section 33 on land owned by Robert Long, Pearl St., Bluffs, IL 62621
- 1 Wind Farm Tower is proposed on a 77.04 acre parcel in the West Half of the Northeast Quarter of Section 33 on land owned by Roger N. Carter, 2562 CR 3000N, Penfield, IL 61862
- 1 Wind Farm Tower is proposed on an 80 acre parcel being the East Half of the Northeast Quarter of Section 33 on land owned by Harold and Darlene Hovel, POB 134, Royal, IL 61871

Other participating landowners in Section 33 are the following:

Michael and Eileen Jarboe Trusts, 2792 CR 2400N, Penfield, IL 61862  
Thomas and Beverly Lee, 2308 Naples Court., Champaign, IL 61822  
Dennis Madigan Living Trust, 18877 Medford, Beverly Hill, MI 48025

**Section 36, T21N, R10E, Compromise Township.** The Special Use Permit includes all of Section 36 except the South Half of the Northwest Quarter of Section 36 and the Southwest Quarter of Section 36. A total of 3 Wind Farm Towers (wind turbines) are proposed in this Section 30 as follows:

- 1 Wind Farm Tower is proposed on a 70 acre parcel in the Northeast Quarter of the Northwest Quarter and the Northwest Quarter of the Northeast Quarter of Section 36 on land owned by Earl and Delores Ideus, 508 N. West St., Gifford, IL 61847
- 1 Wind Farm Tower is proposed on a 50 acre parcel in the North Half of the South Half of the Northeast Quarter of Section 36 on land owned by Royce and Shauna Ideus, 2229 CR 2600N, Gifford, IL 61847
- 1 Wind Farm Tower is proposed on a 157 acre parcel in the Southeast Quarter of Section 36 on land owned by Judith, Leroy and Bonita Kopmann, POB 7, Royal, IL 61871

Other participating landowners in Section 36 are the following:

Leroy and Bonita Kopmann Trust, 117 Susan Drive, Dwight, IL 60420

PART B OGDEN TOWNSHIP

**AS APPROVED- RECOMMEND DENIAL**

**Fractional Section 6, T20N, R11E of the 3<sup>rd</sup> P.M., Ogden Township.** The Special Use Permit includes all of Fractional Section 6 except the Fractional Northwest Quarter of Fractional Section 6 and except the North Half of the Southwest Fractional Quarter of Fractional Section 6 and except the Northwest Quarter of the Southeast Quarter of Fractional Section 6 and except the West Half of the Northeast Fractional Quarter of Fractional Section 6. Participating landowners in Fractional Section 6 are the following:  
Delores Ann Harms Trustee, POB 87, Royal, IL 61871  
Mildred Hinrichs Trust, c/o Laveda Clem, 1982 CR 2100N, Urbana, IL 61822  
Herbert and Betty Osterbur, 302 Benjamin Street, Royal, IL 61871

**Fractional Section 6, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes all of Fractional Section 6, with exceptions. One Wind Farm Tower (wind turbine) is proposed in Fractional Section 6 as follows:

- 1 Wind Farm Tower is proposed on an 83.84 acre tract of land in the Southwest Quarter of Fractional Section 6 on land owned by Sylvia Flessner-Fulk, POB 837, St. Joseph, IL 61873

Other participating landowners in Fractional Section 6 are the following:

Darrell Bruns, c/o Marlys McCartney, 1113 Ascot Dr., Rantoul, IL 61866

Kristi Bruns, c/o Marlys McCartney, 1113 Ascot Dr., Rantoul, IL 61866

Neil Bruns, c/o Marlys McCartney, 1113 Ascot Dr., Rantoul, IL 61866

Marlys McCartney, 1113 Ascot Dr., Rantoul, IL 61866

Marvin and Bernita Harms Trust, 2592 CR 2145N, St. Joseph, IL 61873

Gene and Deanna Osterbur Irrevocable Trust c/o Julie Carlson, 3828 East Whipporwhill Lane, Byron IL 61010

Reka Sage, 2304A CR 3000N, Apt. 203, Gifford, IL 61847

Wayne and Roxie Sage, 2545 CR 2400N, Ogden, IL 61859

**Fractional Section 5, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes all of Fractional Section 5, with exceptions. One Wind Farm Tower (wind turbine) is proposed in Fractional Section 5 as follows:

- 1 Wind Farm Tower is proposed on a 78.10 acre parcel in the Fractional North Half of Fractional Section 5 on land owned by Mark Loschen, 2455 CR 2050N, St. Joseph, IL 61873

Other participating landowners in Fractional Section 5 are the following:

Anna Albers, 2304A CR 3000N, Apt. 107, Gifford, IL 61847

Albers Farm c/o Sandra J. King, POB 562, St. Joseph, IL 61872

Douglas Frerichs, 2634 CR 2300N, Ogden, IL 61859

Arnold and Delores Loschen Trusts, 2654 CR200N, Ogden IL 61859

Gene and Deanna Osterbur c/o Julie Carlson, 3828 East Whipporwhill Lane, Byron IL 61010

Wayne and Roxie Sage, 2545 CR 2400N, Ogden, IL 61859

Dan Shearin, 2431 Parklake Drive, Morris, IL 60450



**Fractional Section 4, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes a 72.8 acre tract of land located in the West Half of the West Half of Fractional Section 4 and an 80 acre tract of land located in the South Half of the Southeast Quarter of Fractional Section 4. Participating landowners in Fractional Section 4 are the following:

Inez K. Britt, 2333 CR 2800E, Ogden, IL 61859

John and Erna Ludwig Living Trusts, c/o Judith Ludwig Gorham, 409 N. Cherry St., Galesburg, IL 61401

**Fractional Section 7, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes the Northeast Quarter of Fractional Section 7, with exceptions and a 60 acre tract of land in the East Half of the Southeast Quarter of Fractional Section 7.

Participating landowners in Fractional Section 7 are the following:

Vernon and Wilma Buhr, 2152 CR 2400N, St. Joseph, IL 61873

Louis and Laverne Osterbur, 2293 CR 2600E, Ogden, IL 61859

**Section 8, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes all of Section 8 with the exception of 160 acres in the West Half of Section 8 and 60.85 acres in the Southeast Quarter of Section 8. Participating landowners in Section 8 are the following:

Albert J. Franzen, POB 206, Broadlands, IL 61816

John and Erna Ludwig Living Trust, c/o Judith Ludwig Gorham, 409 N. Cherry St., Galesburg, IL 61401

Jillene and Ben Henderson, 2651 CR 2150N, Ogden, IL 61859

Randall and Deanna Loschen, 2629 CR 1800N, Ogden, IL 61859

Union Pacific Railroad, 1400 Douglas, Stop 1640, Omaha, NE 61879

**Section 9, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes the Northwest Quarter of Section 9 and the Northeast Quarter of the Southeast Quarter of Section 9 and a 100 acre tract of land in the South Half of the Northeast Quarter and the West Half of the West Half of the Southeast Quarter of Section 9 and the East Half of the Southwest Quarter of Section 9. Participating landowners in Section 9 are the following:

Robert Scott Trust and Alsip Family Trust c/o Robert P. Scott, 107 Arrowhead Lane, Haines City, FL 33844

Robert and Joan Sattler Trusts, 207 McKinley, Milford, IL 60953

Busboom Family Trust c/o Glen L. and Billie J. Busboom, 2756 CR 2200N, Ogden, IL 61859

**Section 16, T20N, R14W of the 2<sup>nd</sup> P.M., Ogden Township.** The Special Use Permit includes an 80 acre tract of land in the East Half of the Northeast Quarter of Section 16. Participating landowners in Section 9 are the following:

Carol Sage Peak, c/o Helen Green, 206 Ridgeview St., Danville, IL 61832.

**AS APPROVED- RECOMMEND DENIAL**

Clifford Peak, c/o Helen Green, 206 Ridgeview St., Danville, IL 61832.  
Helen Green, 206 Ridgeview St., Danville, IL 61832.

## Committee of the Whole Agenda

Material Attachments for Items IX.B and IX.C (Environment and Land Use)

### XI. Environment and Land Use

- B. County Board Special Use Permit – Case 696-S-11 – California Ridge Wind Farm (memo from John Hall, Zoning Administrator is attached)

Attachments A through L (no J) are posted on the County's website with the regular agenda [www.co.champaign.il.us](http://www.co.champaign.il.us)

- C. Approval of Proposed Champaign County-California Ridge Wind Farm Road Agreement

Champaign  
County  
Department of



Brookens  
Administrative Center  
1776 E. Washington Street  
Urbana, Illinois 61802

(217) 384-3708

To: **Champaign County Board Committee of the Whole**  
From: **John Hall, Zoning Administrator**

Date: **October 24, 2011**

RE: **Proposed County Board Special Use Permit Case 696-S-11**

Request: **The ZBA Recommends Denial of a request for a Wind Farm Special Use Permit application which consists of 30 Wind Farm Towers (wind turbines) in total with a total nameplate capacity of 48 megawatts (MW) of which 28 Wind Farm Towers with a total nameplate capacity of 44.8 MW are proposed in Compromise Township (Part A) and 2 Wind Farm Towers with a total nameplate capacity of 3.2 MW are proposed in Ogden Township (Part B), and including access roads, wiring, and public road improvements, and including specific waivers of standard conditions.**

Petitioner: **California Ridge Wind Energy LLC and the landowners listed in the attached list of participating landowners**

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### STATUS

The Zoning Board of Appeals (ZBA) voted to "RECOMMEND DENIAL" of this proposed wind farm at a special meeting held October 20, 2011. Relevant maps are attached. The approved Summary of Evidence and Finding of Fact is attached. The ZBA was careful to specify the reasoning behind the recommendation and the memo reviews the Board's alternatives.

State law establishes a 30 day time limit for a county board siting decision for a wind farm. See the discussion below.

The Draft Champaign County- California Ridge Wind Roads Agreement is also attached for review and recommendation to the full Board.

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### BACKGROUND

This is the first wind farm to be considered for a "County Board Special Use Permit" since the Zoning Ordinance was amended by the adoption of new wind farm requirements in Ordinance No. 848 on May 21, 2009. The public hearing for Case 696-S-11 opened on August 25, 2011, and included six additional meetings ending on October 20, 2011, encompassing approximately 15 hours of public testimony. The minutes of meetings for 8/25/11, 9/1/11, 9/8/11, and 9/29/11 have been approved and are on the website. Minutes for the later meetings have been drafted but not yet approved.

The initial 700 page *California Ridge Wind Energy Project Champaign County Special Use Permit Application* received July 1, 2011, is on the website under the August 25, 2011, ZBA meeting and CDs can be provided. Seven copies of the 700 page report are also available if needed. A full analysis of compliance with the Zoning Ordinance is found in items 9.A. and 9.B. on pages 14 through 44 of the Summary of Evidence.

As originally proposed, the California Ridge Wind Farm required 11 waivers of standard conditions. Over the course of the public hearing new submittals were received and interpretations were made such that only 6 waivers of standard conditions were required for the final determination. Five of the waivers were found to meet the Ordinance requirements but waiver number 4 was found to not meet the Ordinance requirements and thus contributed to the recommendation for denial.

The ZBA also imposed 13 special conditions in total. Most of the special conditions are either related to the waivers or simply document Ordinance requirements. Special conditions that add requirements that exceed existing Ordinance requirements are conditions F, G, J7, J8, J9, K2, K3, M3, and M4 on pages 56 to 64 of the Summary of Evidence. The petitioner has agreed to all special conditions.

## REASONS FOR RECOMMENDATION OF DENIAL

The Approved Finding of Fact clearly identifies the following reasons for the recommendation:

1. **The ZBA determined that Waiver #4, the waiver of the standard condition 6.1.4 I. 1. that requires the noise level of each wind farm tower and wind farm to be in compliance with the Illinois Pollution Control Board regulations at the residential property line rather than to be compliance just at the dwelling, would be injurious to the District.** The evidence regarding the noise impacts is item 9.B.(11) on pages 19- 28 of the Summary of Evidence. The specific Finding for Waiver 4 is Finding of Fact item 6.D. on p. 77. In the overall Finding of Fact, item 2.g. on p. 73 states as follows:

**Noise impacts will be INJURIOUS to the District because of the difference of interpretation of the Illinois Pollution Control Board standards regarding measuring at the property line or the dwelling and in some instances there could be a violation.**

2. **The ZBA did not feel that the Reclamation Agreement provides adequate assurance for the County in a worst case scenario.** The evidence regarding the Reclamation Agreement is item 9.B.(18) on pages 32- 43 of the Summary of Evidence. In the overall Finding of Fact, item 2.h. on p. 73 states as follows:

**The Reclamation Agreement provides INADEQUATE assurance for decommissioning the wind farm because of the possibility that the lien holder's collateral position could result in the County having to pay out of pocket to complete the decommissioning.**

## STATE LAW ESTABLISHES DEADLINE FOR COUNTY BOARD DECISION

State law (55 ILCS 5/5-12020; see Attachment B) establishes the following deadline in this case:

"...There shall be at least one public hearing not more than 30 days prior to a siting decision by the county board..."

The ZBA took action on this case at a special meeting on October 20, 2011, and by law the County Board only has until November 19, 2011, (a Saturday) to make a decision. The regularly scheduled November 17, 2011, Board meeting is within the 30 day time limit.

## COUNTY BOARD ALTERNATIVES

The following three alternatives are available to the County Board:

- **Motion to Uphold the ZBA Recommendation for Denial of Case 696-S-11.** The County Board may uphold the ZBA's recommendation if it agrees with the recommendation for denial. However, the Board should know that the Finding of Fact does contain internal inconsistencies that may be problematic if the decision is challenged in court. Elimination of those inconsistencies can only happen by remanding the case to the ZBA (see below) and the County Board would still have to make a decision by November 19, 2011.

- **Motion to Remand (return) Case 696-S-11 to the ZBA.** Because of the statutory time constraint on a County Board decision, remanding the case to the ZBA is only recommended for specific identified actions that can be done quickly such as **“to remove inconsistencies in the Finding of Fact”** (ie, relevant to Denial- see above).
- **Motion to Approve Case 696-S-11.** Approval of a zoning case when the ZBA has recommended denial is not normally recommended without a remand for reconsideration but this case is unusual for the following reasons:
  1. The concerns about the Reclamation Agreement are not related to any non-compliance with the Ordinance but simply a weighing of the risks associated with the use of salvage value in determining the amount of the financial assurance. The weighing of risks is best done by the County Board. Special condition I. is the condition related to the Reclamation Agreement. The Board has two alternatives regarding the Reclamation Agreement:
    - If the County Board feels that the Reclamation Agreement provides adequate assurance the motion recommending approval should clearly include the following **“...including special condition of approval I. including the Revised Draft Reclamation Agreement received on 10/20/11 and the guaranteed minimum amount of \$25,000 that shall be updated annually to reflect the known rate of inflation, and the expenses and values, including salvage value, as listed in the Base Decommissioning Cost Estimate received 10/06/11 that is Attachment A to the Draft Reclamation Agreement.”**
    - If the County Board feels that the Reclamation Agreement should be changed to provide more assurance it should request the petitioner to make whatever change is desired. The ZBA’s concerns could be addressed by reducing the reliance on salvage value to no more than 75% of the Total Salvage Value (actually suggested by the ZBA) or by increasing the minimum amount of the Financial Assurance from \$25,000 to some greater amount. Note that any change to the condition will have to be accepted by the petitioner. The form of the motion could be similar to the above but with the relevant changes as follows:  
**“...including the following changes to special condition of approval I. including the Revised Draft Reclamation Agreement received on 10/20/11 with the following changes...”**
  2. Since the concerns about injurious noise impacts are related to compliance with the Illinois Pollution Control Board (IPCB) noise regulations and not a County ordinance, the County Board may be as qualified as the ZBA to resolve those concerns. The petitioner has maintained that the proposed wind farm will be compliant with the IPCB regulations even though there is a disagreement regarding whether those regulations apply at the property line or the dwelling. The County Board could approve the wind farm and reaffirm that Champaign County will enforce the IPCB requirements but it is not clear how to resolve the disagreement regarding the property line. The motion should include the following:  
**“and including the elimination of the waiver of standard condition 6.1.4 I. 1. and reaffirming that Champaign County shall enforce the Illinois Pollution Control Board noise regulations as authorized in the Champaign County Zoning Ordinance.”**

**ATTACHMENTS**

- A Public Notice (modified legal advertisement) for Case 696-S-11 Parts A and B
- B Statutory Deadline for Wind Farm Siting Decisions by County Board (55 ILCS 5/5-12020)
- C Case maps (Location & Zoning)
- D Parcel Status Summary Map with Setbacks California Ridge Wind Energy Center, Champaign and Vermilion Counties, received July 21, 2011 (an excerpt of only the Champaign County portion)
- E Excerpts from California Ridge Wind Energy Project Champaign County Special Use Permit Application received July 1, 2011:
  - (1) pages 3-4, 3-5, 3-8, 3-9
  - (2) pages 3-11, 4-1 to 4-6 and 4-8
  - (3) pages 4-9, 4-10 and 5-1 to 5-4
  - (4) pages 5-6, 5-8 to 5-11 and 5-13, 5-14, 5-15
  - (5) Figure 3-2. Project Location and Preliminary Site Layout
  - (6) Figure 3-5 Participating Properties and Champaign County Required Setbacks
  - (7) Figure 4-3 Road Use Plan
  - (8) Figure 5-1 Shadow Effect Likely Hours per Year of Shadow Flicker
  - (9) Appendix C Figure A-2 Sound Contours
- F Champaign County Non-Participating Dwelling Separation Summary map received July 29, 2011
- G Map of Conservation Recreation Zoning District and Incorporated Municipality Setback Compliance received September 29, 2011
- H Staff Handout Illustrating the Comparison of the Maximum IPCS Noise Limit (Single Number) With the Maximum Predicted Noise at Two Receptors with the Ambient Sound
- I Table of 32 Closest Dwellings and 32 Receptors With Loudest Noise Levels
- K REVISED Draft Reclamation Agreement received October 20, 2011, including the following attachments:
  - (A) Revised Decommissioning Costs received October 6, 2011
  - (B) Appendix B California Ridge Wind Energy Project Decommissioning Report
- L As Approved (Recommend Denial) Summary of Evidence, Finding of Fact, and Final Determination for Case 696-S-11
- M Draft Champaign County- California Ridge Wind Roads Agreement received October 24, 2011

RECEIVED

OCT 24 2011

CHAMPAIGN CO. P & Z DEPARTMENT  
CHAMPAIGN COUNTY- CALIFORNIA RIDGE WIND  
ROADS AGREEMENT

**THIS AGREEMENT** (the "Agreement") is made and entered into as of November \_\_\_\_\_, 2011 by and between Champaign County, Illinois (the "County") and California Ridge Wind Energy LLC, a Delaware limited liability company ("California Ridge Wind"). The County and California Ridge Wind may each be referred to herein as a "Party" and together, as the "Parties."

**RECITALS:**

**WHEREAS**, California Ridge Wind is a Delaware limited liability company and is a wholly owned subsidiary of Invenergy Wind North America LLC a Delaware limited liability company; and

**WHEREAS**, California Ridge Wind is in the process of developing a wind energy generating facility consisting of up to 134 wind energy conversion systems ("Turbines") in Champaign and Vermilion Counties (the "Project") and, in connection therewith, has submitted Special Use Permit applications for the Project to the County (collectively, the "Special Use Permit") in accordance with the County's Zoning Ordinance (the "Zoning Ordinance"); and

**WHEREAS**, California Ridge Wind proposes to construct approximately 30 Turbines within the County; and

**WHEREAS**, the County is directed and authorized pursuant to the Counties Code, 55 ILCS 5/5-101 *et seq.*, and the Illinois Highway Code, 605 ILCS 5/5-101 *et seq.* (the "Highway Code"), to construct, administer, operate and maintain highways in Champaign County, Illinois, acting by and through its County Engineer (the "County Engineer"); and

**WHEREAS**, Section 9-113 of the Highway Code grants to the County the authority to impose reasonable rules, regulations and specifications for the use of County Roads by public and private utilities; and

**WHEREAS**, Section 9-113.01 of the Highway Code imposes liability on public or private utilities for any damage to County Roads; and

**WHEREAS**, in connection with the construction of the Project, the Parties desire to address certain issues related to certain roads and roadway appurtenances owned, operated and maintained by the County (the "County Roads") over which it will be necessary for California Ridge Wind and its respective agents, contractors, subcontractors, material suppliers, vendors, employees, and designees (collectively "California Ridge Wind's Parties") to, among other things, (i) transport heavy equipment and materials, which may in certain cases be in excess of the design limits of the County Roads; (ii) transport certain locally sourced materials, such as concrete and gravel, and



(iii) make certain modifications and improvements (both temporary and permanent) to the County Roads (including to certain culverts, road shoulders and other related fixtures) to permit such equipment and materials to pass; and

**WHEREAS**, California Ridge Wind:

- (i) has provided to the County Engineer the following materials prepared by Applied Research Associates, Inc. (“ARA”):
  - (a) a draft report dated January 11, 2011 of the Roadway Evaluation for the California Ridge Wind Energy Project in Champaign and Vermilion Counties which includes data as to the existing pavement conditions (the “Existing Pavement Evaluation”) which includes a structural evaluation of County Roads as determined by Falling Weight Deflectometer (“FWD”) testing; and an evaluation of base and subgrade conditions of the County Roads as determined by Dynamic Cone Penetrometer (“DCP”) testing;
  - (b) information as to proposed County Roads to be used for construction of the Project, including the pavement types, expected number of equivalent single axle loads (“ESALs”) and proposed upgrades to be made to the County Roads in advance of Project construction;
  - (c) a map indicating the locations of Turbines, the substations and the construction laydown yard(s);
  - (d) information about the weights and sizes of the Turbines;
  - ~~(e) information as to the number of equipment and material loads, per axle weight of each load and type of equipment that will be used to transport each load and the inter-Project equipment movements;~~
  - (f) other information concerning construction vehicles, equipment and activities relevant to California Ridge’s use of the County Roads;
  - (g) a map of the haul routes and exit routes to be used by construction vehicles setting forth ingress and egress routes to and from the footprint of the Project for all material deliveries;
  - (h) the projected scope of repairs and estimated repair costs for the County Roads following Project construction (the “Projected Scope of Repairs”) and
  - (i) a preliminary site layout plan and construction traffic route map for the Project complying with the State of Illinois Professional

Engineering Act and signed by an civil engineer licensed in the State of Illinois, a copy of which is attached hereto and incorporated herein as Exhibit "A" (the "Project Map"); and

**WHEREAS**, California Ridge Wind has provided to the County Engineer the evaluation reports and written recommendations prepared by Fraunhoffer & Associates with respect to bridges and box culverts which will be used by construction vehicles for the Project.

**WHEREAS**, prior to and during construction of the Project and during the post-construction road repair phase, the Parties may employ or consult with independent civil engineering firms with respect to the evaluation of the County Roads and the scope of road repairs and the Parties agree that whenever the phrase "independent civil engineering firm" is used in this Agreement it shall mean an engineering firm which regularly practices in and has experience in highway construction and design and is acceptable to the County Engineer; and

**WHEREAS**, the County and California Ridge Wind wish to set forth their understanding and agreement as to the road issues relating to the construction of the Project in this Agreement which the Parties intend to satisfy the requirements of the County Zoning Ordinance.

**NOW, THEREFORE**, in consideration of the mutual promises and covenants herein set forth, the Parties, intending to be legally bound, agree as follows:

**Section 1. County Approvals.** The County hereby agrees to permit:

(a) Project site access road entrances to the County Roads; and

~~(b) Underground collection system cable crossings under the County Roads~~  
and the road right-of-ways

and shall, prior to the start of construction of the Project, coordinate with California Ridge Wind as to the locations of the Project site access road entrances and the underground collection system cable crossings.

No County road radii will be widened in connection with the construction of the Project.

**Section 2. California Ridge Wind Undertakings.** California Ridge Wind hereby agrees, and shall cause California Ridge Wind's Parties to agree, to undertake the following in connection with the development of the Project:

(a) Although the final plans for the Project may vary from the preliminary Site Layout Plan shown on Exhibit A, California Ridge Wind represents and warrants that no Turbines will be constructed in areas other than those areas for which the County has granted a Special Use Permit(s) to California Ridge Wind.

(b) California Ridge Wind, at least 15 days prior to the proposed start of Project construction, shall provide to the County Engineer a final transportation impact analysis prepared by an independent civil engineering firm which:

(i) identifies by name and surface type all County Roads that California Ridge Wind and California Ridge Wind's Parties intend to use during the construction of the Project (referred to herein as the "Affected Roads" or "County Roads"). The Project Map attached hereto as Exhibit A sets forth the routes to be used by construction traffic for the Project; and

(ii) includes a schedule of the road bridges and cross road culverts affected by the Project and the recommendations as to actions in advance of Project construction, if any, required with respect to such bridges and culverts and estimates as to the cost to replace such bridges and culverts; and

(iii) sets forth the number of loads, per axle weight of each load and type of equipment that will be used to transport each load and the inter-Project equipment movements.

(the "Transportation Impact Analysis"). Before construction on the Project may proceed, the County Engineer must approve the Transportation Impact Analysis, which approval shall not be unreasonably withheld or delayed. In connection with review and approval of the Transportation Impact Analysis, the County Engineer may retain an engineering firm and California Ridge Wind shall reimburse the County Engineer for all reasonable engineering fees incurred in connection with the review and approval of the Transportation Impact Analysis. Payment shall be made within thirty (30) days of receipt of such engineering bills by California Ridge Wind or request for reimbursement from the County Engineer.

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(c) California Ridge Wind shall obtain a Utility Installation Permit from the County Engineer and shall comply in all respects with the rules and regulations associated with the Utility Installation Permit process. The form Utility Installation Permit is attached hereto and incorporated herein as Exhibit "B."

(d) Permanent markers/stakes meeting the requirements of State and Federal regulations and good utility practice shall be installed at the edge of the road right-of-ways to identify where the collection system cables cross the roads.

(e) At least fifteen (15) days prior to the start of construction on the Project, and with the agreement of the County Engineer, physically mark the locations of the proposed Project site access road entrances and the underground collection system cable crossings.

(f) At least fifteen (15) days prior to the start of construction on the Project, California Ridge Wind shall become a member of Joint Utility Locating Information for Excavation ("JULIE"). In accordance with the Illinois Underground Utility Facilities Damage Prevention Act and the regulations promulgated thereunder, California Ridge Wind shall provide JULIE with the necessary information to update their records and memorialize the locations where the underground cables cross the road right-of-ways. California Ridge Wind shall, upon request, provide proof of its membership in JULIE to the Township Road Commissioner. California Ridge Wind shall preserve and protect all properties of public utility companies, such as lines, conduits, gas or water pipes, sewers and tile lines which run over, through or under any part of the Township Roads used by California Ridge Wind and California Ridge Wind's Parties. It shall be California Ridge Wind's responsibility to contact the various public utility companies and locate their properties before any construction shall start and California Ridge Wind shall assume full responsibility for reimbursing owners for any damage or injury to such properties which may be caused by California Ridge Wind's operations.

(g) California Ridge Wind shall obtain driveway access permits from the County Engineer and comply in all respects with the rules and regulations associated with the driveway access permit process. A form permit and standard entrance detail is attached hereto as Exhibit "C."

(h) At least fifteen (15) days prior to the start of construction on the Project, California Ridge Wind shall identify all heavy lift crawler crane road crossings at locations to be coordinated with, and approved by, the County Engineer. During the actual construction of the Project, previously identified crane crossing locations may be modified, subject to coordination with and approval of the County Engineer.

(i) Horizontal/directional boring shall be used where the collection system cables cross under the roads such that the road surface shall not be cut, and such cables shall be installed in HDPE Grade SDR 17 used in public right-of-way locations in accordance with good utility practice. Boring shall begin and end at least ten feet (10') outside the road right-of-way. All boring in drainage ditches shall be at least four feet (4') below the lowest part of the drainage ditch.

(j) California Ridge Wind represents and warrants that the Project plans have been prepared by a qualified professional engineer and, as a result of the construction of the Project, including the construction of access roads, there will be no increased runoff or change in drainage patterns as a result of California Ridge Wind's use of, repairs to and removal of materials from the County Roads.

(k) At least fifteen inch (15") culvert pipes shall be used where the new Project site roads cross existing drains in the road right-of-ways, the exact size of such culvert pipes to be determined at or prior to the time California Ridge Wind submits an application for any required permit. All culverts shall be new, poly-coated, riveted, corrugated metal culvert pipes. No spiral culverts shall be used.

(l) The size and type of any culverts installed or replaced as a result of construction of the Project or repair to the County Roads shall be mutually determined by the County Engineer and California Ridge Wind at or prior to the time such culvert is installed or replaced. The Parties anticipate that any such replacement culverts shall be no less than fifteen inches (15") and shall be new, poly-coated, riveted, corrugated metal culvert pipes. No spiral culverts shall be used.

(m) California Ridge Wind shall provide the County Engineer with a copy of each overweight and oversize permit issued by the Illinois Department of Transportation ("IDOT") to California Ridge Wind or California Ridge Wind's Parties.

(n) California Ridge Wind shall obtain permits from the County Engineer prior to transporting overweight and/or oversize loads over any bridges or cross road culverts. The permit application shall meet all applicable IDOT standards, including a bridge inspection in accordance with the National Bridge Inspection Standards and a load rating of all load carrying components of any such bridge or cross road culvert. All costs of any such bridge inspection and load rating shall be paid directly by California Ridge Wind.

(o) California Ridge Wind shall, upon request, provide copies to the County Engineer of any delivery ticket bound for or delivered to the Project site so that the County Engineer may monitor the actual weights of construction vehicles which do not require permits for overweight loads. Delivery tickets shall identify destinations by Turbine number.

(p) While the Project is under construction, transport schedules shall be provided regularly (and in any event, no less than weekly) by California Ridge Wind to the County Engineer to indicate when heavy traffic will be in the area of the Project site.

~~(q) Project traffic shall be scheduled in a way to reasonably minimize the adverse impact on the motoring public and local agricultural truck transport. In the event of traffic conflicts, priority shall be given to emergency response vehicles, rural mail delivery, transportation of children to and from school, and the transportation of agricultural commodities and implements of husbandry. California Ridge Wind agrees that it shall coordinate with the County Engineer the scheduling of Project construction traffic in weekly scheduled meetings, which meetings shall include all affected parties (including school bus transporters) and shall be held at the offices of California Ridge Wind. The County Engineer may, but shall not be obligated to, have representatives participate in such meetings.~~

(r) California Ridge Wind shall pay to the County a fee of Four Thousand Five Hundred Dollars (\$4,500.00) for each Turbine constructed in connection with the Project in the County and said fee shall be deemed to provided permission for the overweight, oversize and overwidth vehicles related to the Project to travel upon the County Roads as designated in the Transportation Impact Analysis and for the issuance of driveway access permits and utility installation approvals. The fee shall be made

payable to the County upon execution of this Agreement and said fee shall be deposited into the County's Highway Fund.

(s) Except as otherwise provided for in this Agreement, California Ridge Wind shall insure that its contractors, subcontractors, material suppliers and their respective transport providers transporting oversize and overwidth loads use the County Roads during daylight hours only.

(t) While traveling on gravel roads, delivery trucks shall limit their speed to 35 miles per hour.

(u) If County Roads degrade (by way of example and not limitation, "degrade" means to show signs of bleeding, rolling, breaking or pumping) while construction of the Project is ongoing due to construction activities or the volume of construction traffic related to the Project, California Ridge Wind, at the request of the County Engineer, shall cause necessary remedies to be implemented to ensure safe passage of the motoring public within a reasonable time, and in any event within twenty-four (24) hours; unless immediate hazards exist, in which case California Ridge Wind shall act as expeditiously as possible under the circumstances to make the County Roads safe for the motoring public. If California Ridge Wind fails to act, the County Engineer may take remedial action and may close the road until the road is made safe for the motoring public.

(v) California Ridge Wind shall comply with the time limits established by the County Engineer with respect to any requested closures of County Roads. In any event, no such road closures shall exceed two (2) hours and the exact time of such closures shall be approved by the County Engineer, such approval shall not be unreasonably withheld. California Ridge Wind shall provide reasonable notice to the Champaign County Emergency Services and Disaster Agency, local law enforcement agencies, affected rural mail providers, affected school districts and fire protection and ambulance service providers of road closings prior to closing any roads, portion of roads or intersections. In the event this provision is violated by California Ridge Wind and California Ridge Wind's Parties, the County Engineer may impose a fine of \$500.00 for each fifteen (15) minute increment that the approved road closure period is exceeded.

(w) Representatives of California Ridge Wind shall meet with the school bus operator(s) and the relevant school officials to ensure that County Roads used by school buses are not closed during times students are transported to and from school or that acceptable alternative routes are put in place and to further ensure that suitable arrangements are put into place for the safe and timely transport of the local children to and from school via the normal services for such transport. At least fifteen (15) days prior to California Ridge Wind's use of the County Roads, California Ridge Wind shall deliver written confirmation of such arrangements to the County Engineer.

(x) California Ridge Wind, upon the request of the County Engineer, shall obtain and post traffic signs, including signs advising "No Wind Farm Construction Traffic" at various locations as an aid to traffic management. All such signage or postings shall comply with the Manual on Uniform Traffic Control Devices (the Illinois Supplement and any updates thereto) issued by IDOT.

(y) In the event that California Ridge Wind or California Ridge Wind's Parties move a traffic control device to accommodate its construction traffic, such sign shall be immediately replaced by California Ridge Wind in accordance with the Manual on Uniform Traffic Control Devices (Illinois Supplement and any updates thereto) issued by IDOT at its expense.

(z) Road and intersection closures shall be marked and signed in accordance with the Manual on Uniform Traffic Control Devices (Illinois Supplement and any updates thereto) issued by IDOT and any other applicable requirements set forth in State statute or regulation or County ordinance.

(aa) All construction traffic (other than privately owned vehicles and light duty trucks used for personnel transportation) related to the Project shall use exclusively the routes designated for use by construction traffic on the Project Map attached hereto as Exhibit A and shall not use County Roads that have been designated "No Construction Traffic." In the event this provision is violated by California Ridge Wind and California Ridge Wind's Parties (including empty return trips after material or equipment has been unloaded), the County Engineer may impose a fine of \$500.00 per occurrence on California Ridge Wind. California Ridge Wind shall also be obligated to repair any road damage resulting from improper use of County Roads by California Ridge Wind or California Ridge Wind's Parties.

(bb) In accordance with permits issued by State authorities and as otherwise required by the Illinois Vehicle Code (and regulations promulgated thereunder), oversize/overweight vehicles shall display slow moving vehicle emblems and provide escort vehicles and related signage and lighting, to the end of protecting public safety and property.

(cc) At all times during the construction of the Project and Repair Work performed on County Roads, California Ridge Wind and California Ridge Wind's Parties shall ensure that construction areas and routes are free and clear of mud, dust, dirt, debris, garbage, obstructions or hazards. Upon request of the County Engineer, California Ridge Wind shall clear any mud, dust, dirt, debris, garbage, obstructions or hazards from a County Road, culvert or ditch prior to dusk on the day such a request is made.

(dd) If, during the course of construction of the Project, the County Engineer notifies California Ridge Wind of significant potholes or other conditions caused by the construction traffic or construction activities which make travel on a County Road hazardous, California Ridge Wind shall remediate the hazard prior to dusk on the day it receives notice of the hazardous condition from the County Engineer (or place

illuminated or night condition warning signs pending the remediation of the hazard within twenty-four (24) hours). If California Ridge Wind fails to act, the County Engineer may take remedial action and may close the road until the road is made safe.

(ee) If work during the construction phase of the Project, or the post-construction road repair phase is suspended for an extended period, due to seasonal conditions or other cause, California Ridge Wind, at California Ridge Wind's expense, shall take such measures as laying additional gravel, installing barriers, posting signs and providing interim repairs or protections, as may be reasonably required to render County Roads safe for vehicular traffic during the period such work is suspended.

(ff) Heavy lift crawler cranes shall only cross the County Roads in low traffic periods and these crossings will be coordinated with and approved by the County Engineer. California Ridge Wind shall ensure that utility interruptions, if required for such crossings, are coordinated with and approved by the local utility(ies) and by the affected property owner(s). California Ridge Wind shall advise the Champaign County Emergency Services and Disaster Agency, local law enforcement agencies, and fire protection and ambulance service providers of such crane crossings.

(gg) The County Engineer and/or his designee shall have unfettered access to the County Roads to inspect the roads, culverts and adjacent ditches.

(hh) California Ridge Wind shall reimburse the County for all direct costs reasonably incurred for oversight, management and inspection, including, but not limited to, on-going engineer fees, incurred in connection with any and all the road issues relating to the construction of the Project, coordination of construction traffic, issuance of required permits and repairs to the County Roads and all roadway appurtenances, including costs incurred during the Road Warranty Period. Payments shall be made within thirty (30) days of receipt of such engineering bill or other bills by California Ridge Wind or request for reimbursement from the County.

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(ii) California Ridge Wind shall submit applications to the County as required.

(jj) California Ridge Wind shall hold harmless, indemnify, defend, pay costs of defense (including attorneys' fees), and pay any and all claims or judgments which may hereafter accrue against the County, the County Board, the County Engineer, and/or (notwithstanding that such individuals are not specifically named herein) their agents, servants, employees and attorneys, arising out of any of the use of the County Roads by California Ridge Wind and California Ridge Wind's Parties and their respective successors and/or assigns in connection with the construction of the Project and repair and reconstruction of the County Roads and all roadway appurtenances.

(kk) This Agreement shall be included in the bid packet provided to contractors, subcontractors and material suppliers bidding to perform road preparation work prior to construction of the Turbines and road work following construction of the Turbines. A pre-bid meeting for interested contractors, subcontractors and material



suppliers shall be conducted by California Ridge Wind and the County Engineer, or his designee, shall be permitted to attend the pre-bid meeting.

(ll) With regard to work performed on County Roads in connection with construction of the Project, California Ridge Wind, its contractors and subcontractors shall pay wages in accordance with the Illinois Prevailing Wage Act, 820 ILCS 130/1, *et seq.* Upon request, California Ridge Wind shall provide to the County Engineer documents establishing compliance with the Illinois Prevailing Wage Act.

(mm) All materials used on the County Roads in connection with the construction of the Project shall be state inspected and approved. For all Repair Work provided for in Section 3 of this Agreement, only limestone aggregate (“chips”) shall be used.

(nn) With regard to work performed on seal coat or hot mix County Roads in connection with construction of the Project, California Ridge Wind's Parties shall be pre-qualified by IDOT to perform the work such parties are hired to perform. Upon request, California Ridge Wind shall provide to the County Engineer documents establishing that a contractor or subcontractor has been pre-qualified by IDOT. In the event a contractor loses pre-qualified status with IDOT after being awarded a contract for work, but before starting work, the contractor shall not be permitted to perform work on the County Roads. California Ridge Wind shall make commercially reasonable efforts to use qualified contractors and subcontractors located in Champaign County.

(oo) California Ridge Wind shall provide to the County Engineer any “As-Built” drawings of improvements to the County Roads or road rights-of-way that California Ridge Wind, its engineers, contractors or subcontractors may possess.

(pp) If construction of the Turbines cannot be completed by November 1, then ~~California Ridge Wind shall, at its expense, take all actions necessary to make County Roads used for and/or damaged by California Ridge Wind's construction activities safe for vehicular traffic during the winter months and until such time that construction of the Project and the post construction Repair Work is completed.~~ Such actions may include, but are not limited to, laying additional gravel, installing barriers and posting signs. All such actions undertaken by California Ridge Wind to prepare the roads for winter conditions and the plowing of the roads shall be subject to the supervision and approval of the County Engineer. In the event rapidly changing winter weather conditions (by way of example and not limitation, sudden thaws or heavy rains) make road conditions hazardous for the motoring public, the County Engineer may close the road to construction traffic.

(qq) California Ridge Wind shall provide written notice to the County Engineer identifying the name, address and both regular and emergency contact information of California Ridge Wind's on-site representative for communication purposes regarding this Agreement and the Project. California Ridge Wind's on-site representative may be changed and any such change and change in contact information shall be communicated to the County Engineer in writing.

**Section 3. California Ridge Wind's Obligation to Improve and Repair County Roads.**

(a) California Ridge Wind hereby agrees that upon notice from the County Engineer, it shall, at its expense, improve, repair, or cause to be repaired, any damage to the County Roads caused by the construction of the Project whether such damage is caused by California Ridge Wind or California Ridge Wind's Parties or their respective successors or assigns (the "Repair Work"). The Parties expressly acknowledge that, but for the construction of the Project, the County Roads and roadway appurtenances would not require significant repairs. Accordingly, provided that there is no material change in the Affected Roads caused by the County, the County will not contribute any funds for the Repair Work required when the construction of the Project is complete. California Ridge Wind will bear the burden of proving that it has not caused any disputed portion of road damage. "Damage" shall be interpreted in the broadest sense and shall include, but not be limited to, damage to the road surface, subsurface, culverts, bridges, drainage tiles, drainage facilities, signs and adjacent ditches. All Repair Work shall be performed in a good and workmanlike manner in accordance with the January 2006 Bureau of Local Roads and Streets Manual (and any updates thereto) issued by IDOT and the "Standard Specifications for Road and Bridge Construction" (and any updates thereto) issued by IDOT, and as specified in the applicable paragraphs of this Section 3.

(b) Upon substantial completion of construction of the Turbines which comprise the Project, ~~California Ridge Wind shall provide to the County Engineer its~~ civil engineer's estimates of the engineering, labor and material costs to repair or improve (in accordance with Section 3) the County Roads affected by the construction of the Project (the "Engineering Estimate"), and shall include the costs of the liability insurance premiums as set forth in Section 5 of this Agreement. This Engineering Estimate must be approved by the County Engineer before the Repair Work may be performed. The Engineering Estimate, once approved by the County Engineer, shall be used as the basis for determining the amount of the Letter of Credit during the post-construction road repair phase as provided for in Section 6 of this Agreement. California Ridge Wind's post-construction Repair Work shall begin as soon as practicable upon the County Engineer's approval of California Ridge Wind's Engineering Estimate of the cost and scope of the post-construction Repair Work.

(c) Dirt Roads. California Ridge will not use any County Road which is an unsurfaced, unimproved dirt road.

(d) Gravel Roads. California Ridge will not use any County Road which is a gravel road.

(e) Seal Coat Roads. California Ridge will not use any County Road which is improved with a seal coat surface.

(f) Hot Mix Asphalt. California Ridge shall, at its sole expense and subject to the review and approval of the County Engineer, restore such road by milling down the surface and resurfacing the road with hot mix asphalt pavement for the full width of the road so as to restore the road cross-section which existed prior to construction of the Project.

i. In the event of roadbed damage resulting from subbase failures, such repair work shall include, but not be limited to, stabilization and subsurface drainage work, coring to a depth of fifteen inches (15"), laying a base course of eight inches (8") of compacted CA-2, and laying a surface course comprised of four inches (4") of compacted CA-6, and four inches (4") of hot mix asphalt pavement for the full width of the road, all such work to be performed as directed by the County Engineer.

In addition, the existing four foot (4') wide crushed aggregate shoulders with a minimum depth of three inches (3") shall be restored adjacent to the repaired roads. Disturbed ditches will also be graded and seeded in compliance with all Federal, State and County requirements.

(g) Wheel Rutting. In the event that road damage to a hot mix asphalt road is limited to surface wheel rutting, California Ridge Wind shall repair such wheel rutting damage by milling down the surface to a depth of 2¼", placing a course of ¾" leveling binder, machine method, N50 and placing a course of 1½ inch of hot-mix asphalt surface course, mixture C, N50.

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(h) Tiles. The Parties acknowledge that there are farm drainage tiles located under or parallel to roads to be used by California Ridge Wind for construction of the Project. In the event that these under the road drainage tiles are damaged, California Ridge Wind shall replace said tiles under the entire road right-of-way with Schedule 40 PVC culvert pipe of equal diameter. The County Engineer shall be consulted and advised for each such replacement. With respect to drainage tiles running parallel to the roads which may be damaged, California Ridge Wind and the County Engineer shall use good faith efforts to arrive at a mutually agreeable repair method to be made by California Ridge Wind.

(i) Life Cycle Cost Analysis. A Life-Cycle Cost Analysis ("LCCA") will be performed when Project construction is completed to provide the basis for reimbursing the County for any potential reduction in remaining pavement service life.

The pre-construction pavement structural and surface condition surveys prepared by ARA and referenced in the Recitals will be used to establish a baseline structural condition and a baseline surface condition. Upon completion of a construction, a post-construction survey will be performed using similar methods to the pre-construction survey. Using the pre-construction and post-construction surveys the change in remaining structural or surface condition life associated with Project construction will be calculated as a number of years in reduction of service life. The reduction of service life is the maximum of the reduction of structural life or reduction of surface condition life.

The difference in the life cycle cost because of any reduction in life to County Roads as a result of Project construction is the economic value associated with the reduction in life to County Roads caused by Project construction.

The general framework for the LCCA is the procedures provided in Publication No. FHWA-SA-98-079, "Life-Cycle Cost Analysis in Pavement Design," as published by the US Department of Transportation, Federal Highway Administration (FHWA) and further specified by the parameters set forth below:

- i. Valuation Approach – The LCCA will use a Net Present Value approach to calculating the current value of future costs over the analysis period. The basic formula for discounting discrete future amounts at various points in time back to the base year is provided by the following formula:

$$NPV = \text{Initial Cost} - \sum_{k=1}^N \text{Rehab Cost}_k \left( \frac{1}{(1-i)^{n_k}} \right)$$

where  $i$  = discount rate  
 $n$  = year-of-expenditure

- ii. Analysis Period – The LCCA will use a 45 year analysis period, which exceeds the FHWA minimum of 35 years and the FHWA criteria that at least 1 major rehabilitation occur in the analysis period.
- iii. Discount Rate – Future costs will be estimated in constant dollars and discounted to the present using a real discount rate. FHWA notes that long-term trends for real discount rates have an acceptable range of 3 to 5 percent and are reported by the White House's Office of Management and Budget. Current OMB rate (December 2010) for LCCA is 2.3%. The discount rate for this analysis will be 3%.
- iv. Salvage Value – The LCCA will provide for a salvage value at the end of the analysis to account for the remaining life in the overlay that is placed closest to the end of the analysis period. The salvage value will be the prorated share of the last rehabilitation cost beyond the analysis period.

v. Performance Periods – The performance period for the pavement repairs and rehabilitations will be taken from the most recent pavement management system pavement performance model for Champaign County.

vi. Routine, Reactive Annual Maintenance – These costs will not be included in the analysis. FHWA notes that these cost are hard to obtain, generally very small in comparison to construction and rehabilitation costs, and differentials are usually very small when discounted over a 45-year analysis period.

vii. Infrastructure Costs – The LCCA uses the cost of the primary bid items for pavement construction, a 10% incidental items cost, and percentage based costs items for maintenance of traffic, engineering, design, coordination, and construction inspection. The unit prices for the pavement construction items will be taken from the Champaign County Pavement Management System as a reflection of current bid prices.

viii. User Delay Costs – The LCCA will not incorporate the use of user delay costs.

An example demonstrating the LCCA procedure to be used is as follows: in this example the performance period for a road is 14 years, the pre-construction survey shows 8 years of remaining roadway life, the post-construction survey shows a reduction of remaining life of 3 years. For a 1-mile segment of roadway with 2 total lanes each 12 ft. wide the life cycle costs are:

Pre-construction NPV of roadway ownership = \$297,342.55

Post-construction NPV of roadway ownership = \$337,368.98

Change due to construction =  $\$337,368.98 - \$297,342.55 = \$40,026.43$ .

The underlying data related to the example set forth above is contained in Exhibit D.

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California Ridge Wind shall compensate the County for the loss of road service life as determined by the LCCA within thirty (30) days of the acceptance of the LCCA by the County. Such compensation shall be deposited in the County Highway Fund.

(j) If a portion of a road is damaged as a result of the construction of the Project, the road shall be repaired to the next intersection.

(k) All post-construction repair work shall be completed within six (6) months of the date of the Letter of Credit is adjusted for the post-construction Repair Work. If completion of the post-construction Repair Work cannot be completed within the period designated for road construction repair work by IDOT, then (i) the six (6) month repair period shall be tolled pending the resumption of the Repair Work in accordance with IDOT rules and regulations and (ii) California Ridge Wind shall, at its expense, lay additional gravel, install barriers, post signs and take all actions necessary to make County Roads damaged by California Ridge Wind's construction activities safe for vehicular traffic until such time that construction of the Project and the post construction

Repair Work is completed. All such actions undertaken by California Ridge Wind shall be subject to the supervision and approval of the County Engineer.

(l) California Ridge Wind shall provide written notice to the County Engineer when California Ridge Wind has completed the Repair Work and attached to the written notice shall be proof of payment to contractors, subcontractors and material suppliers and lien waivers executed by all contractors, subcontractors and material suppliers who have performed the Repair Work (the written notice and required attachments are herein referred to as the "Completion Notice").

(m) Upon receipt of the Completion Notice by the County Engineer, the County shall have thirty (30) days to inspect the Repair Work and provide written notice to California Ridge Wind of rejection of the Repair Work in whole or in part (the "Rejection Notice"). The Rejection Notice, if any, shall be delivered by certified mail, return receipt requested to the address for California Ridge Wind provided hereinafter in Section 9(g).

i. If no Rejection Notice is tendered by the County, then the Letter of Credit shall be adjusted to provide security for the Road Warranty Period as provided for in Section 6 of the Agreement.

ii. If a Rejection Notice is tendered by the County, then:

(a) California Ridge Wind shall make repairs as identified in the Rejection Notice. Upon completion of such additional repair work, California Ridge Wind shall serve the County Engineer with a supplemental Completion Notice and the notice procedures set forth herein shall apply; or

~~(b) Within ten (10) days of receipt of the Rejection Notice,~~  
California Ridge Wind shall deliver a written demand to the County Engineer requesting that the County and California Ridge Wind select an independent civil engineering firm to inspect the Repair Work and determine if additional repairs as demanded by the County in a Rejection Notice are reasonably required. The Parties shall select an independent civil engineering firm within twenty-one (21) days of the delivery of California Ridge Wind's written demand to the County Engineer. The independent civil engineering firm shall complete its inspection within thirty (30) days of its engagement by the Parties and issue its written report. The determination of said independent civil engineering firm shall be binding upon the Parties. The cost of the engineering firm for such inspection and report shall be divided evenly between the Parties.

iii. The "Date of Final Acceptance" of all road repairs shall be the later of the following:

(a) The date of the delivery of the Completion Notice to the County Engineer if no Rejection Notice is delivered by the County to California Ridge Wind; or

(b) If a Rejection Notice is delivered by the County to California Ridge Wind, then either:

(1) the date the identified repairs are completed to the reasonable satisfaction of the County; or

(2) the date of the written report by the independent civil engineering firm showing no further repairs are necessary or reasonably required.

(n) If any County Road used by California Ridge Wind shall require any repairs in the reasonable opinion of the County Engineer, as a result of damage caused by California Ridge Wind or California Ridge Wind's Parties or Repair Work is defective and additional repairs are required during the three (3) year period following the Date of Final Acceptance, (the "Road Warranty Period"), California Ridge Wind shall, upon notification by the County of the necessity for the repair, make repairs at its own cost and expense, and shall remain liable for any additional cost or expense incurred. Should California Ridge Wind fail to make the repairs within the reasonable time period specified in the notification, the County may cause the work to be done and the County may draw upon the Letter of Credit as provided for in Section 6 of this Agreement to pay the entire cost or expense of the repair, including, but not limited to, reasonable engineer, attorney and consultant fees and costs. Should the cost or expense exceed the amount set forth in the Road Warranty Period Letter of Credit, California Ridge Wind shall remain liable for any additional cost or expense incurred by the County. The three (3) year Road Warranty Period shall not be construed as a limitation or modification of any applicable statute of limitations.

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**Section 4. County Undertakings.** In consideration for the obligations of California Ridge Wind under this Agreement, the County agrees as follows:

(a) Upon receipt of the Letter of Credit as provided for in Section 6 of this Agreement, to permit California Ridge Wind and California Ridge Wind's Parties to use the County Roads designated in the Transportation Impact Analysis for construction of the Project, including overweight, oversize and overwidth vehicles. All other applicable and necessary permits shall be issued by the County Engineer in a timely manner upon the filing of applications by or on behalf of California Ridge Wind or California Ridge Wind's Parties.

(b) The County will coordinate and cooperate with California Ridge Wind and California Ridge Wind's Parties to minimize the impact of their use of the roads on normal local traffic.

**Section 5. Insurance.** California Ridge Wind shall furnish the County with evidence of liability insurance in the amount of at least Five Million Dollars (\$5,000,000.00) (United States Currency) per occurrence covering the activities of California Ridge Wind contemplated by this Agreement. The insurance shall be written by a company rated by Standard & Poor's rating group as B+ or better or as otherwise determined to be acceptable by the County. A Certificate of Insurance shall be provided to the County Engineer before the commencement of any work by California Ridge Wind, its contactors, subcontractors, material suppliers or their respective transport providers. The insurance policy shall provide for a thirty (30) day "prior notice of changes or termination" provision in favor of the County. Should California Ridge Wind allow such liability insurance to terminate prior to the expiration of the Road Warranty Period, the County shall have recourse against the Letter of Credit for funds sufficient to cause the liability insurance to be reinstated until the expiration of the Road Warranty Period. The County, the County Board and the County Engineer and their respective agents and employees shall be named as the only additional insureds on the policy and California Ridge Wind shall provide a copy of the Additional Insured Endorsement to the County Engineer prior to the use of any County Roads for construction of the Project.

**Section 6. Letter of Credit.**

(a) On or before November 21, 2011, California Ridge Wind shall provide to the County an irrevocable Letter of Credit (the "Letter of Credit") issued by a sound financial institution located in the United States of America substantially in the form attached as Exhibit "E" to this Agreement. The Parties acknowledge that the exact terms of the Letter of Credit may be subject to terms requested by the financial institution issuing the Letter of Credit. The amount of the Letter of Credit shall be One Hundred Fifty Thousand Dollars (\$150,000.00).

(i) In the event that the Fraunhofer & Associates report dated ~~September 2011 and referenced in the Recitals to this Agreement or other~~ report indicates that improvements need to be made to a bridge or box culvert prior to use by construction vehicles or that a bridge or box culvert may sustain damage as a result of construction vehicles, California Ridge Wind shall provide an estimate (prepared by an independent civil engineer who regularly practices and has experience in highway construction and design and is mutually acceptable to the County Engineer and California Ridge Wind) of the cost of any such improvements or post-construction repair costs. This estimate must be approved by the County Engineer. Within five (5) business days of approval of the estimate by the County Engineer, the Letter of Credit shall be increased by the amount of the estimate, plus twenty-five percent (25%).



(b) The Letter of Credit shall provide security to the County for the following phases of the Project:

- (i) the construction of the Project,
- (ii) the post-construction Repair Work, and
- (iii) the Road Warranty Period.

At six (6) month intervals from the date the Letter of Credit is initially provided by California Ridge Wind to the County, and until Date of Final Acceptance of the post-construction Repair Work, California Ridge Wind, subject to approval by the County, will reassess the estimated cost of post-construction Repair Work, and the Letter of Credit shall be adjusted to reflect the periodically revised estimate.

(c) During the post-construction Repair Work phase, the Letter of Credit shall not be less than one hundred twenty-five percent (125%) of the cost of the Repair Work as agreed upon by the Parties in accordance with Section 3 of this Agreement plus the estimated amount of the compensation due the County for the reduction in service life to County Roads as provided for in Section 3(i) of this Agreement. When the County receives compensation as required by Section 3(i), the Letter of Credit then in place shall be adjusted to the amount of (125%) of the cost of the Repair Work as agreed upon by the Parties.

(e) During the Road Warranty Period, the Letter of Credit shall not be less than twenty-five percent (25%) of the actual cost of the post-construction Repair Work as agreed upon by the Parties when the post-construction Repair Work is accepted by the County.

~~(f) A reduction in the Letter of Credit shall not amount to acceptance of by the County of improvements or repairs to County Roads by California Ridge Wind.~~

(g) The County shall not draw on the Letter of Credit until ten (10) calendar days after the delivery of written notice to California Ridge Wind specifying a default hereunder by California Ridge Wind beyond the applicable cure periods set forth in Section 10(b), during which ten (10) days California Ridge Wind may cure such default and, in the event California Ridge Wind so cures, the County shall not draw on the Letter of Credit on account of such default. The insuring or bonding over of any payment claim of a contractor, subcontractor or material supplier by California Ridge Wind with the County shall constitute an acceptable cure of a default based upon California Ridge Wind's failure to pay a contractor, subcontractor or material supplier.

(h) The Letter of Credit may be used by the County, in its reasonable discretion, to cure any uncured defaults of any kind or nature with respect to California Ridge Wind's obligations under this Agreement, including, but not limited to:

(i) provide payment for any of California Ridge Wind's obligations under this Agreement which remain unpaid for thirty (30) days after such obligations have been incurred and documented, which obligations shall include without limitation, modification and repairs of the County Roads during construction of the Project and post-construction Repair Work;

(ii) keeping the liability insurance policy pursuant to Section 5 in force and effect;

(iii) in the event the County is served with a notice pursuant to the Illinois Mechanics' Lien Act from any of California Ridge Wind's contractors, subcontractors, material suppliers, engineers or others (a "Lien Claimant") that California Ridge Wind has not paid for work, payment may be made to such Lien Claimant; in such circumstance, the payment may be made through a title insurer or escrowee after a review of lien waivers and other documents for the purpose of insuring against claims by a Lien Claimant; and further provided that this right in the County shall not be construed as granting to any Lien Claimant any right as a third party beneficiary or otherwise to the proceeds of the Letter of Credit;

(iv) reimbursement for emergency actions by the County to respond to an incident related to construction of the Project or the post-construction Repair Work to protect public health and safety; or

(v) reimbursement for such other actions (erection of traffic control signs, payment for outside consultants and advisors, *etc.*) as are provided for under this Agreement.

(i) Upon the expiration of the Road Warranty Period, California Ridge Wind shall have no further obligation to maintain the Letter of Credit and the Letter of Credit shall be cancelled and returned to California Ridge Wind.

**Section 7. Future Work by California Ridge Wind.** This Agreement is limited to the construction of the Project as described in the recitals to this Agreement and as depicted in Exhibit A. In the event that California Ridge Wind desires use of County Roads for future maintenance work on the Project, for demolition or decommissioning of the Project as a whole or of individual Turbines or for the development of another Project, another road agreement with the County shall be required.

**Section 8. Approval of Special Use Permits by the County.** The obligations of the Parties hereto are subject to and conditioned upon approval of the Special Use Permits for the Project by the County. In the event that the County fails to approve all of the Special Use Permits applied for by California Ridge Wind, this Agreement shall be, except as otherwise provided for herein, null, void and without legal effect.

**Section 9. Miscellaneous.**

(a) Incorporation of Recitals. The Recitals set forth above are hereby incorporated herein and made a part of this Agreement.

(b) Remedies and Enforcement. Each of the Parties hereto, their successors and assigns, covenant and agree that in the event of default of any of the terms, provisions or conditions of this Agreement by any Party, or their successors or assigns, which default is not cured for a period of ten (10) days after receipt of a written notice to the defaulting Party of such default, or if such default reasonably requires more than ten (10) days to cure, such longer period of time as is reasonably necessary to effect the cure provided the defaulting Party commences to cure such default within such ten (10) day cure period and diligently pursues such cure, the Party seeking to enforce said provisions shall thereafter have the right to file a breach of contract claim, an action for a declaratory relief and/or to seek the remedies of specific performance and injunctive relief, as well as other remedies available at law or in equity. Notwithstanding the foregoing, the County may, without notice, take remedial action if immediate hazards exist and California Ridge Wind is unable to or fails to take immediate action to make the County Roads safe for the motoring public and any costs reasonably incurred by the County in such a circumstance shall be reimbursed by California Ridge Wind.

(c) Due Authorization. California Ridge Wind hereby represents and warrants that this Agreement has been duly authorized, executed and delivered on behalf of California Ridge Wind.

(d) Severability. If any provision of this Agreement is held invalid under any applicable law, such invalidity shall not affect any other provision of this Agreement that can be given effect without the invalid provision and, to this end, the provisions hereof are severable.

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(e) Entire Agreement. This Agreement contains the entire understanding of the Parties as to the matters set forth herein, and this Agreement supersedes any prior agreements or understandings by and between the Parties.

(f) Amendments. No waiver of a Party's rights hereunder shall be binding unless it shall be in writing and signed by the Party against whom enforcement is sought. Any amendment or modification to this Agreement shall be in writing and executed by each Party hereto.

(g) Notices. All notices shall be in writing. Unless otherwise provided, a notice shall be deemed to delivered (i) on the date of personal service; (ii) five (5) days after being sent by registered or certified mail, return receipt requested, postage prepaid, or (iii) on the next business day if sent by overnight delivery service (e.g. Federal Express) with all fees prepaid to the Parties hereto at their respective addresses set forth below. Notice may be sent via facsimile to a facsimile number; provided, however, notice sent via facsimile shall be followed by notice delivered by personal service or via

registered or certified mail, return receipt requested, postage prepaid or by overnight delivery.

Notices shall be addressed as follows:

If to California Ridge Wind:  
California Wind Energy LLC  
ATTN: Project Manager  
1 S. Wacker Dr. STE 1900  
Chicago, IL 60606  
Telephone: 312-224-1400  
Facsimile: 312-224-1444

and

Invenergy  
ATTN: General Counsel  
1 S. Wacker Dr. STE 1900  
Chicago, IL 60606  
Telephone: 312-224-1400  
Facsimile: 312-224-1444

If to the County:  
Champaign County Highway Department  
ATTN: County Engineer  
Highway Building  
1605 E. Main St.  
Urbana, IL 61802  
Telephone: (217) 384-3800  
Facsimile: (217) 328-5148

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with a copy to:

Champaign County States' Attorney  
Champaign County Courthouse  
Second Floor  
101 E. Main Street  
Urbana, IL 61801-2737  
Telephone: (217) 384-3733  
Facsimile: (217) 384-3816

and

Sheryl H. Kuzma  
Myers, Berry, O'Connor & Kuzma, Ltd.  
130 East Madison Street  
Ottawa, Illinois 61350  
Telephone: (815) 434-6206  
Facsimile: (815) 434-6203

or to such other party or address as any Party hereto may from time to time designate in a written notice to the other Parties.

(h) Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. Delivery of an executed counterpart of a signature page to this Agreement by telecopier shall be as effective as delivery of a manually signed counterpart to this Agreement.

(i) Commencement of Project. This Agreement shall be void if substantial construction of the Project is not commenced on or before March 1, 2013.

(j) Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Illinois, (the state in which this Agreement is deemed to have been executed and delivered), irrespective of any conflict of laws provisions.

(k) Forum Selection. The Parties agree that any disputes arising out of, related to, or connected with this Agreement shall be litigated, if at all, solely in the Circuit Court for the Sixth Judicial Circuit, Champaign County, Illinois.

(l) Successors and Assigns. This Agreement shall inure to the benefit of and shall be binding upon the Parties hereto, their respective successors, assignees, and legal representatives. This Agreement may not be assigned without the written consent of the other Parties hereto, which consent shall not be unreasonably withheld; provided, however, that California Ridge Wind may collaterally assign this Agreement, without the consent of the County, in connection with any financing or refinancing of the Project. Any such collateral assignment will not relieve California Ridge Wind of its obligations under this Agreement. In the event of such a collateral assignment, California Ridge Wind shall, seven (7) days after such assignment, provide written notice to the County of the name, address, entity type and state of incorporation of the assignee, as well as the name and address of the assignee's registered agent in the State of Illinois.

(m) No Waiver or Relinquishment of Right to Enforce Agreement. Failure of any Party to this Agreement to insist upon the strict and prompt performance of the terms, covenants, agreements and conditions herein contained or any of them, upon any other party imposed, shall not constitute or be construed as a waiver or relinquishment of any Party's right thereafter to enforce any such term, covenant, agreement or condition, but the same shall continue in full force and effect.

(n) Reimbursement of Costs. California Ridge Wind shall reimburse the County for the expenses of any special meetings that may be held related to the adoption or amendment of this Agreement, including but not limited to the cost of publishing notice of such meetings in local newspapers. Reimbursement shall be made within thirty (30) days of receipt of an invoice for such expenses and shall be deposited in the County's General Fund.

(o) Attorney's Fees and Costs. California Ridge Wind agrees to reimburse the County for all reasonable attorneys' fees and costs associated with the negotiation, drafting and execution of this Agreement, the ongoing review of compliance with the Agreement, the review of all notices, Letters of Credit and all documents in connection with this Agreement or any extension, amendment or modification thereof, and all other legal work required by the County in connection therewith. In the event that the County fails to approve all or any of the Special Use Permits for the Project, California Ridge Wind shall remain liable for the reimbursement of said reasonable attorneys' fees and costs incurred by the County. If any action at law or in equity is brought by the County to enforce this Agreement and the County prevails in such litigation, the County shall be entitled to receive from California Ridge Wind reasonable attorneys' fees and costs incurred, in addition to any other relief to which the County may be entitled.

(p) Memorandum of Agreement. A Memorandum of this Agreement, substantially in the form of Exhibit "F" hereto, shall be recorded with the Champaign County Recorder of Deeds by California Ridge Wind at its expense within thirty (30) days after the execution of this Agreement and a copy of the recorded Memorandum shall be delivered to the County Engineer within sixty (60) days after the execution of this Agreement.

(q) Preparation of Agreement. This Agreement shall be deemed to have been prepared by California Ridge Wind and shall be construed against California Ridge Wind as the drafter, preparer and producer of the language herein.

**IN WITNESS WHEREOF**, the Parties hereto have executed this Agreement the day and year first written above.

SIGNATURES ON FOLLOWING PAGE

Champaign County, Illinois

By: \_\_\_\_\_  
C. Pius Weibel  
County Board Chairman

Attest:

By: \_\_\_\_\_  
Gordy Hulten  
County Clerk

California Ridge Wind, LLC

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

County of \_\_\_\_\_ )  
  ) ss  
State of Illinois         )

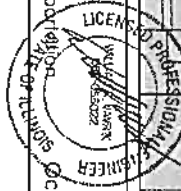
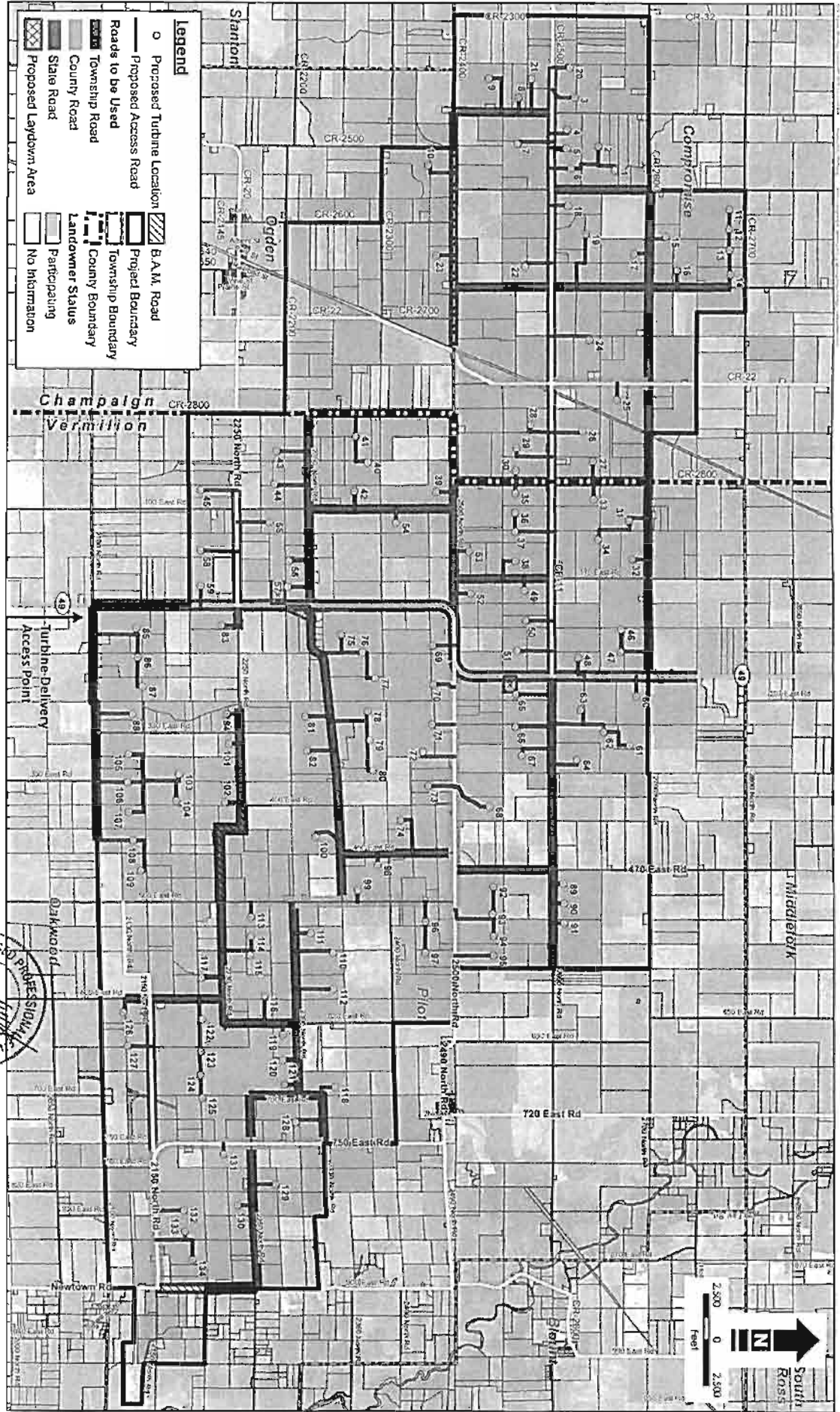
I, the undersigned, a Notary Public, in and for said County, in the State aforesaid, do hereby certify that \_\_\_\_\_, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me and acknowledged that in his capacity as \_\_\_\_\_ of \_\_\_\_\_, an \_\_\_\_\_ corporation, he signed and delivered said instrument on behalf of \_\_\_\_\_, the managing member of California Ridge Wind, LLC.

Given under my hand and notarial seal  
November \_\_, 2011.

\_\_\_\_\_  
Notary Public

**EXHIBIT A**  
**PROJECT MAP**





Rev. 05

**Invenery**  
One South Woodley Drive Suite 100  
Chattanooga, TN 37403  
615.272.2121

**EXHIBIT B**  
**UTILITY PERMIT FORM**

## Utility Permit

Mr. Jeff Blue  
County Engineer  
Champaign County Highway Department  
1605 East Main Street  
Urbana, Illinois 61802

In accordance with Illinois Compiled Statutes 605 ILCS 5/9-113 \_\_\_\_\_  
hereby requests permission to construct, operate and maintain a buried/aerial \_\_\_\_\_  
\_\_\_\_\_ in Champaign County, \_\_\_\_\_ Township, Section \_\_\_\_\_  
along County Highway # \_\_\_\_\_.

Method of construction shall be by \_\_\_\_\_.  
We agree to return the public right of way to its original condition in a timely manner as a  
condition of this permit and also agree that any drainage structure disrupted or destroyed by said  
construction shall be repaired at our expense.

Work shall begin on or about the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, and shall be  
completed on or before the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Application submitted by:

NAME: \_\_\_\_\_

REPRESENTING: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

Approved this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Champaign County Engineer

**Applications shall be accompanied by a drawing showing the approximate location, within  
the right of way, of the utility construction. No open cuts shall be allowed across County  
Highways.**

**EXHIBIT C**

**ENTRANCE PERMIT FORM &  
STANDARD FIELD ENTRANCE DETAIL**

# ENTRANCE CULVERT AND DRIVEWAY PERMIT

Champaign County Highway Department

SHEETS NUMBERED 1-5:

1. Permit Request:  
Complete this form and **return to the County Engineer.**
2. Complete the dimensions and **return with the Permit Request .**
3. Requirements for the construction
4. Completion and Compliance:  
Upon receipt of approval for the permit from the County Engineer, proceed with the installation. **Upon completion, return this form to the County Engineer.**  
  
Following inspection and acceptance, the Certificate of Compliance will be returned to you.
5. Additional compliance information and maintenance responsibility for the completed culvert and driveway.

You may talk to your Township Highway Commissioner for availability of Corrugated Metal Culvert Pipe or contact Clark County Supply.

**ENTRANCE CULVERT AND DRIVEWAY PERMIT REQUEST**

Champaign County Highway Department

Permit Number \_\_\_\_\_

Request to construct an entrance culvert and driveway to the applicants property on the \_\_\_\_\_ side of County Highway \_\_\_\_\_ in Section \_\_\_\_\_ in \_\_\_\_\_ Township.

DATE: \_\_\_\_\_

NAME OF APPLICANT: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

All work shall be done in accordance with the "Rules for the construction of Entrance Culverts for Driveways to County Highways" as adopted by the Champaign County Board of Supervisors on the 12<sup>th</sup> Day of September 1967.

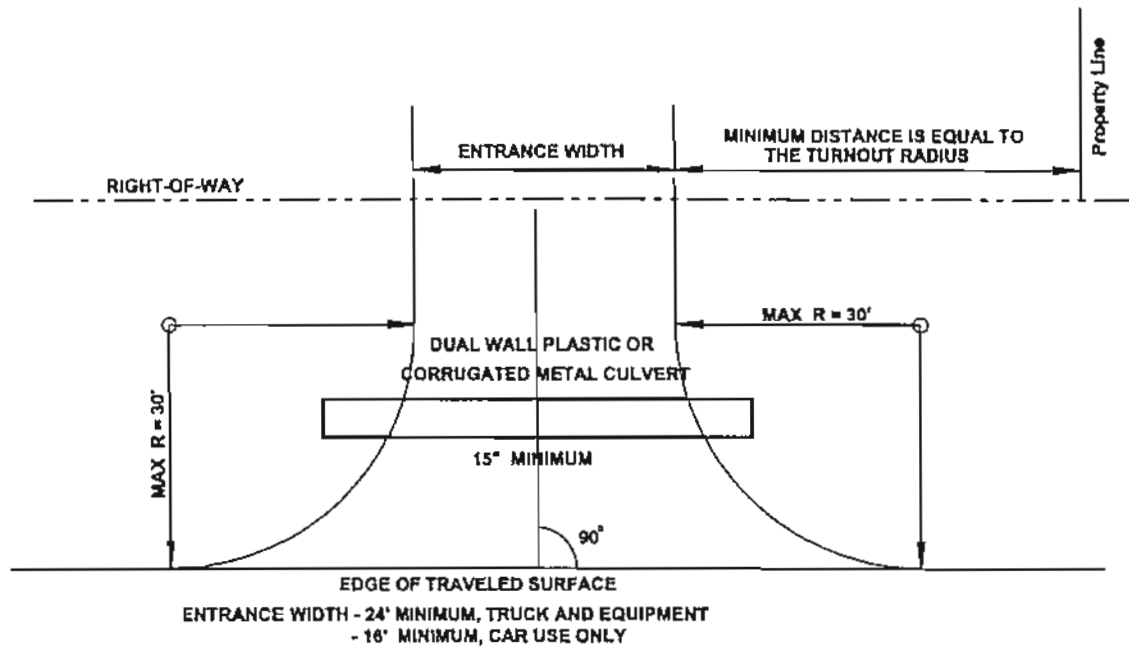
Show all dimensions and details of the proposed construction on the sketch on Sheet 2. Minimum culvert size shall be 15"x 26', corrugated metal pipe.

Request to perform the above-described work is hereby approved this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

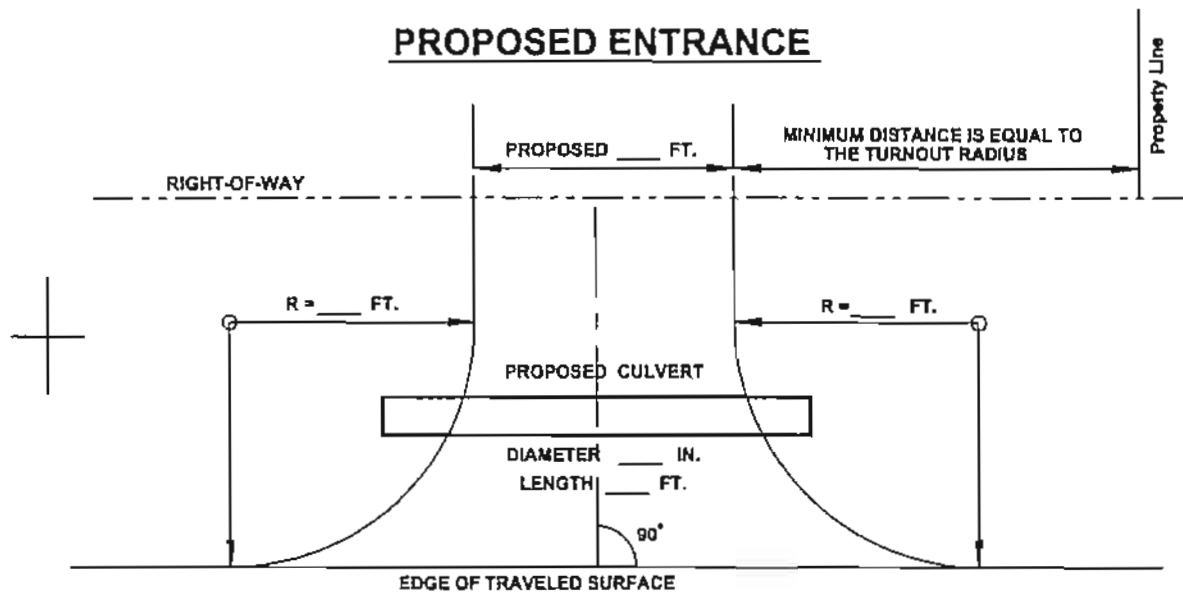
\_\_\_\_\_  
County Engineer  
Champaign County Highway Department

Sheet 1 of 5

## ENTRANCE SPECIFICATIONS



## PROPOSED ENTRANCE



**NOTE: LOCATE THE PROPOSED CENTERLINE OF THE ENTRANCE WITH A STAKE, LATHE, OR PAINT SO THE ACTUAL LOCATION OF THE ENTRANCE CAN BE ASSESSED FOR PERMIT APPROVAL.**

## **REQUIREMENTS FOR THE CONSTRUCTION OF ENTRANCE CULVERTS AND DRIVEWAYS TO COUNTY HIGHWAYS**

1. All construction work shall be done in accordance with these rules and regulations and in accordance with the information submitted on the application and drawings.
2. All entrance driveways shall be designed so that the centerline of that portion lying within the right-of-way limits shall be at right angles to the paved portion of the traveled surface of the road.
3. Entrance culverts shall be constructed of metal culvert pipe or dual-walled plastic culvert pipe laid to the flow line grade of the existing ditch and at no time shall such culvert pipe be less than 15 inches in diameter.
4. All entrances proposed to be used by equipment or large trucks shall have a minimum 24' driving surface. Entrances for cars and light duty vehicles shall have a minimum 16' driving surface.
5. Entrance driveways shall be constructed of hard surface material, not less than an equivalent of crushed stone 6 inches in depth, and shall be laid so that the finished surface of the driveway shall slope away from the traveled surface of the road at a slope equal to the existing shoulder lines at the location of the driveway.
6. No entrance driveway shall be flared with a radius of more than 30 feet, and in all cases the entire flare of the entrance shall fall within the right-of-way lines of the Highway. No part of any entrance driveway including the flares shall encroach on the frontage of any adjacent property.
7. Maximum side slope from top of entrance to the bottom of the ditch shall be 3:1.
8. The entire cost of the authorized work shall be paid for by the applicant who shall assume all the expenses including construction, insurance, etc., and, if required, the expense of removal.
9. No work will be authorized to proceed except at such times when the right-of-way is in the proper condition to permit the said construction.



CHAMPAIGN COUNTY HIGHWAY DEPARTMENT

JEFF BLUE  
COUNTY ENGINEER

1605 East Main Street  
Urbana, Illinois 61802

(217) 384-3800

---

Permit Number \_\_\_\_\_

Permit issued on \_\_\_\_\_ day of \_\_\_\_\_, 2011

**CULVERT AND DRIVEWAY ENTRANCE COMPLETION OF INSTALLATION**

To be signed and returned to the Champaign County Highway Department after the completion of installation.

The installation of the described work of said permit has been completed this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

\_\_\_\_\_  
Applicant Signature

**CERTIFICATE OF COMPLIANCE**

To be completed by the Department

The installation of the described work of said permit has been inspected and accepted

this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

\_\_\_\_\_  
County Engineer  
Champaign County Highway Department

## COMPLETION AND INSPECTION

1. The County Engineer or his duly authorized agent is hereby directed and authorized to inspect the construction work authorized by the permit to see that such work conforms to these regulations. If such work conforms to these regulations, the County Engineer is authorized to accept it for the County and to issue a Certificate of Compliance. If such work does not conform to these regulations, the County Engineer is directed to reject it and the applicant shall immediately proceed to remove all such rejected work from within the limits of the right-of way.
2. After acceptance by the County Engineer and the issuance of his Certificate of Compliance, all such construction and materials within the limits of the right-of-way of the highway shall become the property of the County of Champaign and thereafter the County will assume the responsibility for the maintenance of said work.

**EXHIBIT D**

**DATA IN SUPPORT OF EXAMPLE LCCA CALCULATION**

# PRE-CONSTRUCTION NPV DETERMINATION

## Structurally Adequate Flexible Pavement Life Cycle Cost Analysis California Ridge Wind Farm Development

Analysis period, years	45
Initial year of construction	2003
Discount rate, %	3.0%
Expected Life of Overlay	14
Years Remaining Life at Wind Farm Construction	8
Reduction of Life due to Wind Farm Construction	0

Project Length, ft	5,280
Number of Lanes	2
Lane width, ft	12
Total pavement area, sq.yd	14,080
Total shoulder area, sq.yd	4,693

ITEM	YEAR	QUANTITY	UNIT	PRICE	COST	PRESENT WORTH
Initial Construction Cost	0	0	0	\$ -	\$ -	\$ -
<b>REHABILITATION COSTS</b>						
Mill 2.0 in of existing AC in traffic lanes	8	14,080	SY	\$ 2.00	\$ 28,160.00	\$ 22,229.76
Repair/replace aggregate shoulders, Type B	8	4,693	SY	\$ 2.00	\$ 9,386.67	\$ 7,409.92
Place asphalt tack coat (9 sy per gallon)	8	1,564	GAL	\$ 2.00	\$ 3,128.89	\$ 2,469.97
Place 2.0-In HMA surface	8	782	CY	\$ 125.00	\$ 97,777.78	\$ 77,186.68
Incidental construction materials & activities	8	10	%		\$ 13,845.33	\$ 10,929.63
Maintenance of traffic	8	5	%		\$ 7,614.93	\$ 6,011.30
Total agency cost for engineering, design, & coordination	8	10	%		\$ 15,229.87	\$ 12,022.60
Construction Inspection & coordination	8	10	%		\$ 15,229.87	\$ 12,022.60
Mill 2.0 in of existing AC in traffic lanes	22	14,080	SY	\$ 2.00	\$ 28,160.00	\$ 14,696.49
Repair/replace aggregate shoulders, Type B	22	4,693	SY	\$ 2.00	\$ 9,386.67	\$ 4,898.83
Place asphalt tack coat (9 sy per gallon)	22	1,564	GAL	\$ 2.00	\$ 3,128.89	\$ 1,632.94
Place 2.0-In HMA surface	22	782	CY	\$ 125.00	\$ 97,777.78	\$ 51,029.49
Incidental construction materials & activities	22	10	%		\$ 13,845.33	\$ 7,225.78
Maintenance of traffic	22	5	%		\$ 7,614.93	\$ 3,974.18
Total agency cost for engineering, design, & coordination	22	10	%		\$ 15,229.87	\$ 7,948.35
Construction Inspection & coordination	22	10	%		\$ 15,229.87	\$ 7,948.35
Mill 2.0 in of existing AC in traffic lanes	36	14,080	SY	\$ 2.00	\$ 28,160.00	\$ 9,716.11
Repair/replace aggregate shoulders, Type B	36	4,693	SY	\$ 2.00	\$ 9,386.67	\$ 3,238.70
Place asphalt tack coat (9 sy per gallon)	36	1,564	GAL	\$ 2.00	\$ 3,128.89	\$ 1,079.57
Place 2.0-In HMA surface	36	782	CY	\$ 125.00	\$ 97,777.78	\$ 33,736.50
Incidental construction materials & activities	36	10	%		\$ 13,845.33	\$ 4,777.09
Maintenance of traffic	36	5	%		\$ 7,614.93	\$ 2,627.40
Total agency cost for engineering, design, & coordination	36	10	%		\$ 15,229.87	\$ 5,254.80
Construction Inspection & coordination	36	10	%		\$ 15,229.87	\$ 5,254.80
SALVAGE VALUE	45	36%			\$ (67,990.48)	\$ (17,979.31)

INITIAL CONSTRUCTION COST	\$ -	\$ -
REHABILITATION COST	\$ 503,129.52	\$ 297,342.55
<b>TOTAL LIFE CYCLE COST</b>	<b>\$ 503,129.52</b>	<b>\$ 297,342.55</b>

# POST-CONSTRUCTION NPV DETERMINATION

## Structurally Adequate Flexible Pavement Life Cycle Cost Analysis California Ridge Wind Farm Development

Analysis period, years	45
Initial year of construction	2003
Discount rate, %	3.0%
Expected Life of Overlay	14
Years Remaining Life at Wind Farm Construction	8
Reduction of Life due to Wind Farm Construction	3

Project Length, ft	5,280
Number of Lanes	2
Lane width, ft	12
Total pavement area, sq.yd	14,080
Total shoulder area, sq yd	4,693

ITEM	YEAR	QUANTITY	UNIT	UNIT PRICE	COST	PRESENT WORTH
Initial Construction Cost	0	0	0	\$ -	\$ -	\$ -
<b>REHABILITATION COSTS</b>						
Mill 2.0 in of existing AC in traffic lanes	5	14,080	SY	\$ 2.00	\$ 28,160.00	\$ 24,291.06
Repair/replace aggregate shoulders, Type B	5	4,693	SY	\$ 2.00	\$ 9,386.67	\$ 8,097.02
Place asphalt tack coat (9 sy per gallon)	5	1,564	GAL	\$ 2.00	\$ 3,128.89	\$ 2,699.01
Place 2.0-in HMA surface	5	782	CY	\$ 125.00	\$ 97,777.78	\$ 84,343.97
Incidental construction materials & activities	5	10	%		\$ 13,845.33	\$ 11,943.11
Maintenance of traffic	5	5	%		\$ 7,614.93	\$ 6,568.71
Total agency cost for engineering, design, & coordination	5	10	%		\$ 15,229.87	\$ 13,137.42
Construction inspection & coordination	5	10	%		\$ 15,229.87	\$ 13,137.42
Mill 2.0 in of existing AC in traffic lanes	19	14,080	SY	\$ 2.00	\$ 28,160.00	\$ 16,059.25
Repair/replace aggregate shoulders, Type B	19	4,693	SY	\$ 2.00	\$ 9,386.67	\$ 5,353.08
Place asphalt tack coat (9 sy per gallon)	19	1,564	GAL	\$ 2.00	\$ 3,128.89	\$ 1,784.36
Place 2.0-in HMA surface	19	782	CY	\$ 125.00	\$ 97,777.78	\$ 55,761.30
Incidental construction materials & activities	19	10	%		\$ 13,845.33	\$ 7,895.80
Maintenance of traffic	19	5	%		\$ 7,614.93	\$ 4,342.69
Total agency cost for engineering, design, & coordination	19	10	%		\$ 15,229.87	\$ 8,685.38
Construction inspection & coordination	19	10	%		\$ 15,229.87	\$ 8,685.38
Mill 2.0 in of existing AC in traffic lanes	33	14,080	SY	\$ 2.00	\$ 28,160.00	\$ 10,617.06
Repair/replace aggregate shoulders, Type B	33	4,693	SY	\$ 2.00	\$ 9,386.67	\$ 3,539.02
Place asphalt tack coat (9 sy per gallon)	33	1,564	GAL	\$ 2.00	\$ 3,128.89	\$ 1,179.67
Place 2.0-in HMA surface	33	782	CY	\$ 125.00	\$ 97,777.78	\$ 36,864.79
Incidental construction materials & activities	33	10	%		\$ 13,845.33	\$ 5,220.05
Maintenance of traffic	33	5	%		\$ 7,614.93	\$ 2,871.03
Total agency cost for engineering, design, & coordination	33	10	%		\$ 15,229.87	\$ 5,742.06
Construction inspection & coordination	33	10	%		\$ 15,229.87	\$ 5,742.06
SALVAGE VALUE	45	14%			\$ (27,196.19)	\$ (7,191.72)
<b>INITIAL CONSTRUCTION COST \$ - \$ -</b>						
<b>REHABILITATION COST \$ 543,923.81 \$ 337,368.98</b>						
<b>TOTAL LIFE CYCLE COST \$ 543,923.81 \$ 337,368.98</b>						

**EXHIBIT E**

**LETTER OF CREDIT FORM**

**BENEFICIARY**

Champaign County, Illinois  
c/o Champaign Co. Highway Department  
1605 E. Main Street  
Urbana, IL 61802  
Attn: Jeff Blue  
Telephone: 217-384-3800  
Facsimile: 217-328-5148

**APPLICANT**

Invenergy Wind Finance  
North America LLC  
On behalf of  
California Ridge Wind Energy LLC  
One South Wacker Drive, Suite 1900  
Chicago, IL 60606  
Attn: James Murphy

November \_\_, 2011

Irrevocable Letter of Credit No.

Stated Amount: US\$  
Effective Date: October \_\_, 2011  
Expiration Date: September 30, 2012  
Issuer: Norddeutsche Landesbank Girozentrale  
New York Branch  
1114 Avenue of the Americas  
20th Floor  
New York, New York 10036

Ladies and Gentlemen,

We irrevocably authorize you to draw on us from time to time for the account of Champaign County, Illinois (the "Beneficiary") amounts, which, when aggregated with ~~prior draws, do not exceed the Stated Amount (as shown above).~~ ~~The Stated Amount~~ may be increased or reduced or reinstated from time to time as forth in this Letter of Credit. We shall make funds available to you against presentation of a dated and appropriately completed draw request in substantially the form of Attachment 1 hereto purportedly manually signed by the Beneficiary. This Letter of Credit is effective immediately.

Each draw request and all communications with respect to this Letter of Credit shall (i) be in writing and addressed to Norddeutsche Landesbank Girozentrale, New York Branch, 1114 Avenue of the Americas, 20th Floor, New York, New York 10036, Attention Andrea Johann, Associate Director, (ii) refer to this Letter of Credit, and (iii) be delivered in person or by certified mail or by facsimile (212) 812-6938, or by overnight delivery service. If a draw request is presented in strict compliance with the terms of this Letter of Credit by 11:00 A.M. Eastern Standard Time on any Business Day, payment will be made not later than 3:00 P.M. Eastern Standard Time on the following Business Day and if a draw request is so presented to us after 11:00 A.M. Eastern Standard Time on any Business Day, payment will be made on the second succeeding Business Day not

later than 1:00 P.M. Eastern Standard Time. Payment under this Letter of Credit shall be made in immediately available funds by wire transfer to such account as may be designated by a Beneficiary in the applicable draw request.

As used in this Letter of Credit, "Business Day" means any day other than a Saturday, Sunday, national or state holiday or other day on which commercial banks are authorized or required to close under the laws of the State of New York.

This Letter of Credit shall expire on the Expiration Date stated on the preceding page.

It is a condition of this Letter of Credit that the expiration date shall be automatically extended without amendment for one (1) year from the expiration date hereof and for successive one (1) year periods thereafter unless at least thirty (30) days prior to any such expiration date we send notice to you by certified mail or hand delivered courier, at the address stated above, that we elect not to extend this Letter of Credit for any additional period.

In the event that a draw request fails to comply with the terms of this Letter of Credit, we shall, not later than the next Business Day, notify the Beneficiary in writing, specifying with particularity the reasons therefore. Such notice shall be delivered in person or sent by overnight delivery or sent by facsimile transmission to the Beneficiary and to Sheryl H. Kuzma, Myers, Berry, O'Connor & Kuzma, Ltd., 130 E. Madison Street, Ottawa, Illinois 61350, 815-434-6203 (facsimile). Upon being notified that a draw request was not effected in compliance with this Letter of Credit, the Beneficiary may attempt to correct such non-complying draw request in accordance with the terms of this Letter of Credit.

All issuing bank charges are for the account of the Applicant.

This Letter of Credit sets forth in full the terms of our undertaking and this undertaking shall not in any way be modified, amended, limited or amplified by reference to any other document, instrument or agreement, whether or not referred to herein.

This Letter of Credit contemplates multiple draws. Each draw shall reduce the amount available for subsequent draws under this Letter of Credit. The Stated Amount may be increased or reduced or reinstated by subsequent amendments hereto. No amendment to this Letter of Credit shall be effective without the written concurrence of Norddeutsche Landesbank Girozentrale, the Letter of Credit Issuer, the Applicant, and the Beneficiary.

We hereby agree with you that documents presented under and in conformity with the terms and conditions of this Letter of Credit will be duly honored on presentation if presented on or before the expiration date of this Letter of Credit. If, within three (3) business days of the date any demand is made in conformity with this Letter of Credit is presented, we fail to honor the same, we agree to pay all attorneys' fees, court costs and other expenses incurred by the Beneficiary in enforcing the terms of this Letter of Credit.

This Letter of Credit is governed by the provisions of the Uniforms Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Publication No. 600 ("UCP600") and matters not addressed by UCP600 shall be governed and construed in accordance with the laws of the State of Illinois.

We irrevocably agree with you that any legal action or proceeding with respect to this Letter of Credit shall be brought in the Circuit Court of the Sixth Judicial Circuit, Champaign County, Illinois.

NORDDEUTSCHE LANDESBANK GIROZENTRALE  
NEW YORK BRANCH



DRAW REQUEST

Norddeutsche Landesbank Girozentrale  
New York Branch  
Attn: Andrea Johann  
1114 Avenue of the Americas  
20<sup>th</sup> Floor  
New York, New York 10036

Copy to:  
Joe Condo  
California Ridge Wind Energy LLC  
c/o Invenergy Wind Finance North America LLC  
Attn: General Counsel  
One South Wacker Drive, Suite 1900  
Chicago, Illinois 60606

Ladies and Gentlemen,

The undersigned \_\_\_\_\_  
Champaign County, Illinois (the "Beneficiary" hereunder) hereby requests a draw in the amount of \$ \_\_\_\_\_ ("this Draw") against the Irrevocable Letter of Credit \_\_\_\_\_ dated October \_\_, 2011, (the "Letter of Credit"), issued by Norddeutsche Landesbank Girozentrale, New York Branch in favor of the Beneficiary. Any capitalized term used but not defined herein shall have the meaning given to such term in the Letter of Credit.

In connection with this Draw, the Beneficiary hereby certifies, represents and warrants that:

- A) This Draw is authorized by the Champaign County – California Ridge Wind Roads Agreement dated October \_\_\_\_, 2011 entered into by and between California Ridge Wind Energy LLC and Champaign County, Illinois. (the "Road Agreement").
- B) The Beneficiary has determined that there has been a default under the Road Agreement and that by reason thereof the Beneficiary is entitled to the amount demanded.

C) The Beneficiary has given written notice of such default to California Ridge Wind Energy LLC in accordance with the terms of the Road Agreement and California Ridge Wind Energy LLC has failed to cure the default within ten (10) days after the mailing of the written notice.

D) This Draw request, when aggregated with all prior draws under the Letter of Credit, does not exceed the Stated Amount.

E) You are directed to make payment of this Draw to

\_\_\_\_\_.

IN WITNESS WHEREOF, the undersigned has executed and delivered this request on this \_\_\_\_ day of \_\_\_\_\_, 201\_\_.

Champaign County, Illinois  
as Beneficiary

By \_\_\_\_\_  
Name \_\_\_\_\_  
Title: [title]

[Draw request may be executed by the  
County Board Chairman or the County  
Engineer]

**EXHIBIT F**  
**MEMORANDUM OF AGREEMENT**

**MEMORANDUM  
OF AGREEMENT**

**NOTICE IS HEREBY GIVEN** that an Agreement was entered into by and between Champaign County, Illinois and California Ridge Wind, LLC concerning use of county roads located within \*\*\*\*\* Township and affecting real estate in the following sections of \*\*\*\*\* Township:

Sections:        TO BE INSERTED

The Agreement imposed obligations upon California Ridge Wind LLC related to its use of Champaign County roads for the construction of the California Ridge Wind LLC's Wind Energy Project.

California Ridge Wind LLC

By: \_\_\_\_\_  
<<INSERT NAME & TITLE>>

Date: \_\_\_\_\_, 2011

**THIS DOCUMENT PREPARED BY:**

NAME  
ADDRESS  
CITY, STATE ZIP  
TELEPHONE

**AND RETURN TO:**

Sheryl H. Kuzma  
MYERS, BERRY, O'CONOR & KUZMA, LTD.  
130 East Madison Street  
Ottawa, Illinois 61350  
815-434-6206