I. INTRODUCTION

A. Title

This Ordinance shall amend the Benton County Zoning Ordinance and be known, cited and referred to as the Benton County Wind Energy Siting Ordinance.

B. Purpose

This Ordinance is adopted for the following purposes:

1. To assure that any development and production of wind-generated electricity in Benton County is safe and effective;
2. To facilitate economic opportunities for local residents;
3. To provide a regulatory scheme for the construction and operation of Wind Energy Facilities in the county, subject to reasonable restrictions, this will preserve the public health and safety.

II. DEFINITIONS

A. “Wind Energy Conversion System” (“WECS”) means all necessary devices that together convert wind energy into electricity and deliver that electricity to a utility’s transmission lines, including but not limited to the rotor, nacelle, generator, WECS Tower, electrical components, WECS foundation, transformer, and electrical cabling from the WECS Tower to the Substation(s), switching stations, meteorological towers, communications facilities, and other required facilities and equipment, as related to the WECS project.

B. “Applicant” means the entity or person who submits to the County, pursuant to Section V of this Ordinance, an application for the siting of any WECS or Substation or thereafter operates or owns a WECS.

C. “Financial Assurance” means reasonable assurance from a credit-worthy party, examples of which include a surety bond, trust instrument, cash escrow, or irrevocable letter of credit or combinations thereof.

D. “Operator” means the entity responsible for the day-to-day operation and maintenance of the WECS, including any third party subcontractors.

E. “Owner” means the entity or entities with an equity interest in the WECS(s), including their respective successors and assigns. Owner does not mean (i) the property owner from whom land is leased for locating the WECS (unless the property owner has an equity interest in the WECS); or (ii) any person holding a security interest in the WECS(s) solely to secure an extension of credit, or a person foreclosing on such security interest provided that after foreclosure, such person seeks to sell the WECS(s) within one year of such event.

F. “Professional Engineer” means a qualified individual who is licensed as a professional engineer in any state in the United States.

G. “Primary Structure” means, for each property, the structure that one or more persons occupy the majority of time on that property for either business or personal reasons. Primary Structure includes structures such as residences, commercial buildings, hospitals, and day care facilities. Primary Structure excludes structures such as hunting sheds, storage sheds, pool houses, unattached garages and barns.

H. “Substation” means the apparatus that connects the electrical collection system of the WECS(s) and increases the voltage for connection with the utility’s transmission lines.

I. “Switching Station” shall be an apparatus/structure in the system similar to a
alla substation but not necessarily increasing voltage into the grid.

J. “WECS Project” means the collection of WECSs and Substations as specified in the siting approval application pursuant to Section V of this Ordinance.

K. “WECS Tower” means the support structure to which the nacelle and rotor are attached, free standing or guyed structure that supports a wind turbine generator.

L. “WECS Tower Height” means the distance from the rotor blade at its highest point to the top surface of the WECS foundation.

M. “BOCA” refers to the Building Officials and Code Administrators International.

III. APPLICABILITY

This Ordinance governs the siting of WECSs and Substations that generate electricity to be sold to wholesale or retail markets, except that owners of WECSs with an aggregate generating capacity of 3MW or less who locate the WECS(s) on their own property must obtain a variance to this Ordinance. WECS may be sited and operated in all Benton County townships including Bolivar Township.

IV. PROHIBITION

No entity shall construct or operate a wind energy conversion system (WECS) without having fully complied with the provisions of this Ordinance.

V. APPLICATION REQUIREMENTS

Prior to the construction of a WECS, the Applicant shall obtain approval for the following: (1) an Application for a Conditional Use from the Benton County Board of Zoning Appeals (“BZA”) to permit a WECS in any zone other than R-1, R-2, R-3 or R-4 (Residential) zoned land, as described below and in § 8-10(C) of the Benton County Zoning Code (the “Code”), (2) a Request for Variance for any variances anticipated on the WECS Project, as described below and in § 8-22 of the Code, and (3) an Improvement Location Permit from the Benton County Building Commissioner, as described below and in § 8-18(B) of the Code.

A. The Application for a Conditional Use

1. The application shall be filed with the BZA and include the following items:

   a. A WECS Project summary, including, to the extent available: (1) a general description of the project, including its approximate name plate generating capacity; the potential equipment manufacturer(s), type(s) of WECS(s), number of WECS(s), and name plate generating capacity of each WECS; the maximum height of the WECS Tower(s) and maximum diameter of the WECS(s) rotor(s);
the general location of the project; and (2) a description of the Applicant, Owner, and Operator, including their respective business structures.

b. The name(s), address(es), and phone number(s) of the Applicant(s), Owner and Operator, and all property owner(s) with WECS on their properties, if known.

c. A topographic map of the project site and the surrounding area which shall encompass an area at least a quarter mile radius from the proposed project site with contours of not more than five foot intervals.

d. A site plan at an appropriate scale showing (standard sheet of 36 inches by 24 inches and individual tower site not greater than 1 inch equals 20 feet): the proposed location of the wind energy facility (including planned locations of each WECS Tower, guy lines and anchor bases (if any); WECS access roads; Substations; electrical cabling; and ancillary equipment). In addition, the site plan shall show: Primary Structures within one quarter of one mile of any WECS; property lines, including identification of adjoining properties; setback lines; public roads; location of all above-ground utility lines within a distance of two (2) time the WECS Tower Height of any WECS Tower; recognized historic or heritage sites as noted by the Division of Historic Preservation and Archeology of the Indiana Department of Natural Resources; and any wetlands based upon a delineation prepared in accordance with the applicable U. S. Army Corps of Engineer requirements and guidelines.

e. Location of all existing underground utility lines associated with the WECS site.

2. In determining whether to approve the Application for Conditional Use, the BZA shall determine whether the Application satisfies each of the six (6) criteria set forth in § 8-10(D) of the Code, and make written findings thereof.

3. The Conditional Use granted by the BZA for a WECS Project shall be valid for a period of one (1) year, after which the Conditional Use shall terminate and be of no further force or effect if construction in earnest of the approved WECS has not commenced. The Applicant shall be granted a one (1) year extension to two (2) years from the date of the BZA approval if the Applicant presents its request for an extension to the BZA and provides a report to the BZA which shows the progress made on the WECS Project. Thereafter, an additional extension shall be at the BZA’s discretion.
4. The fee for the Application for a Conditional Use shall be payable at the time of submission of the Application. The fee shall be $20,000.00, of which 50% shall be applied toward fees for Improvement Location Permits. In the event that the Improvement Location Permit fees are less than $10,000.00, the County shall retain the unused Improvement Location Permit fees. The Application fee shall be used to defray the costs associated with the Application for a Conditional Use, including professional fees and expenses.

B. The Application for Variance

1. Contemporaneously with the Application for a Conditional Use, the Applicant shall submit an Application for Variance for any variances sought as part of the WECS Project. A single Application for Variance may be submitted for all variances sought.

2. In determining whether to approve the Application for Variance, the BZA shall determine whether the Application satisfies each of the five (5) criteria set forth in §8-22(A) of the Code, and make written findings thereof.

3. The fee for any variances is included in the Application fee.

C. The Application for Improvement Location Permit

1. The Applicant shall apply to the Building Commissioner for an Improvement Location Permit, as described in §8-22(A) of the Code. In addition to the information required on the Improvement Location Permit Application, the Applicant shall provide the following information to the Building Commissioner prior to the issuance of an Improvement Location Permit:

   a. Location of all above-ground utility lines within a radius equal to two (2) times the height of the proposed WECS.

   b. Location of all underground utility lines associated with the WECS site.

   c. Dimensional representation of the structural components of the tower construction including the base and footings.

   d. Schematic of electrical systems associated with the WECS including all existing and proposed electrical connections.

   e. Manufacturer’s specifications and installation and operation instructions or specific WECS design information.

   f. Certification by a registered professional engineer that the tower design is sufficient to withstand wind load requirements for structure as defined by BOCA.

   g. All turbines shall be new equipment commercially available.
Used, experimental or proto-type equipment still in testing shall be approved by the BZA as per the normal special exception process.

h. Necessary recorded access easements and necessary recorded utility easements, copies of which shall be submitted to the Benton County Building Commissioner.

i. No appurtenances other than those associated with the wind turbine operations shall be connected to any wind tower except with express, written permission by the BZA.

j. A transportation plan showing how vehicles would access the site and describing the impacts of the proposed energy project on the local and regional road system during construction and operation.

k. A revegetation plan for restoring areas temporarily disturbed during construction.

l. A fire protection plan for construction and operation of the facility.

m. Any other item reasonably requested by the BZA.

n. A drainage plan for construction and operation must be developed and approved by the Benton County Drainage Board.

o. An erosion control plan must be developed in consultation with the Benton County Soil and Water Conservation District.

2. Each WECS Tower shall require an Improvement Location Permit. The fee for each improvement Location Permit shall be $2,500.00, which shall be used to defray the costs of professional services, as well as other expenses associated with the issuance of Improvement Location Permits.

VI. DESIGN AND INSTALLATION

A. Design Safety Certification

1. WECSs shall conform to applicable industry standards. Applicant shall submit certificate(s) of design compliance that wind turbine manufacturers have obtained from Underwriters Laboratories, Det Norske Veritas, Germanischer Lloyd Wind Energie, or an equivalent third party.

2. Following the granting of siting approval under this Ordinance, a Professional Engineer shall certify, as part of the building permit application that the foundation and tower design of the WECS is within accepted professional standards, given local soil and climate conditions.

B. Controls and Brakes
All WECS shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over speed protection.

C. Electrical Components

1. All electrical components of the WECS shall conform to applicable local, state, and national codes, and relevant national and international standards.

2. Electrical Collection Cables

   All WECS electrical collection cables between each WECS shall be located underground unless they are located on public or utility rights-of-way or with prior County approval. All transmission lines that are buried should be at a depth consistent with or greater than local utility and telecommunication underground lines standards or as negotiated with the land owner or the land owner’s designate until the same reach the property line or a substation adjacent to the property line.

D. Color

1. Towers and blades shall be painted white or gray or another non-reflective, unobtrusive color.

2. The Applicant for the WECS shall comply with all applicable FAA requirements.

E. Warnings

1. A reasonably visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and Substations.

2. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of not less than 15 feet from the ground.

F. Climb Prevention

All WECS Tower designs must include features to deter climbing or be protected by anti-climbing devices such as:

1. Fences with locking portals at least six feet high; or

2. Anti-climbing devices 15 feet vertically from the base of the WECS
3. Locked WECS Tower doors.

G. Blade Clearance

The minimum distance between the ground and any protruding blade(s) utilized on a WECS shall be fifteen (15) feet, as measured at the lowest point of the arc of the blades. The minimum distance shall be increased as necessary to provide for vehicle clearance in locations where over-sized vehicles might travel.

H. Noise and Vibration

Noise and vibration levels shall be in compliance with all County, State and Federal regulations.

I. Utility Interconnection

The WECS, if interconnected to a utility system, shall meet the requirements for interconnection and operate as set forth in the electrical utility’s then-current service regulations applicable to WECS.

J. Waste Management

All solid waste whether generated from supplies, equipment, parts, packaging, or operation or maintenance of the facility, including old parts and equipment, shall be removed from the site in a timely manner consistent with industry standards. All HAZARDOUS WASTE generated by the operation and maintenance of the facility, including but not limited to lubricating materials, shall be handled in a manner consistent with all local, state and federal rules and regulations.

K. Lighting

1. Except with respect to lighting required by the FAA all lighting shall be shielded so that no glare extends substantially beyond the boundaries of the Wind farm Facilities.

2. Any WECS thereof declared to be unsafe by the Benton County Building Inspector by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedures set forth in the County Ordinances governing the removal of Nuisances.

L. Compliance with Additional Regulations:
Nothing in this Ordinance is intended to preempt other applicable state and federal laws and regulations.

VII. SETBACKS:

A. No WECS shall be constructed in any setback, dedicated public easement or dedicated public right-of-way without prior written authorization from the county.

B. Installation of any WECS may not be nearer than three hundred fifty (350) feet or 1.1 times the height of the WECS tower height, whichever is greatest, to any property lines, dedicated roadway, railroad right-of-way or overhead electrical transmission or distribution lines. Distance shall be measured from the center of the foundation at the base of the tower. New structures built adjacent to wind power facilities shall maintain these same minimum setback requirements. Participating landowners within the area comprising the wind energy conversion system may waive property line setbacks with written approval from all landowners sharing such property line.

C. Except as provided herein the setback distance for turbines with a rated capacity of 1.0 MW or less shall be 1,000 feet or more from any existing or occupied residence and turbines with a greater rated capacity shall be set back 1,000 feet or more from any existing or occupied residence or from the boundary of any to which as of the date of approval of the WECS is in a platted subdivision and shall be setback from a property line 1.1 times the height of the turbine with the blade tip at its highest point. Distance shall be measured at the time of application for building permit from the center of the foundation at the base of the tower. A turbine with a capacity of 1.0 MW or less may be placed as near as 600 feet from an occupied residence with the prior written approval of the owner. The setback distance will be followed except in specific instances allowed by the County Board.

D. The setback distance for the WECS wil be 1500 feet from any platted community under the zoning jurisdiction of a municipality. Distance shall be measured from the center of the foundation at the base of the WECS to the closest Corporate Limit boundary line.

VIII. USE OF ROADS/SERVICES

An Applicant, Owner, or Operator proposing to use any county road(s), for the purpose of transporting WECS or Substation parts and/or equipment for construction, operation, or maintenance of the WECS(s) or Substation(s), shall prior to construction:

A. Identify all such public roads and services;

1. Roads
a. Any proposed routes that will be used for construction and maintenance purposes shall be identified. If the route includes a public road, it must be approved by the Benton County Highway Supervisor. The Supervisor shall conduct a pre-construction baseline survey to determine existing road conditions for assessing potential future damage.

b. Any road damage caused by the construction of the WECS project equipment, the installation of same, or the removal of same, must be repaired to the satisfaction of the Benton County Highway Supervisor. The Supervisor may choose to require either remediation of road repair upon completion of the project or are authorized to collect fees for oversized load permits. Further, a corporate surety bond in an amount to be fixed by a Professional Engineer may be required by the Supervisor to insure the county that future repairs are completed to the satisfaction of the unit of local government. The cost of bonding is to be paid by the applicant.

c. Newly constructed WECS access roads may not impede the flow of water.

2. Dust Control

Reasonable dust control measures will be required by the County during construction of the WECS.

3. Sewer and Water

Any facility shall comply with existing septic and well regulation as required by the Benton County Health Department and the State of Indiana Department of Public Health.

4. Drainage Repair

All damages to waterways, drainage ditches, field tiles, or any other infrastructures caused by the construction or maintenance of the WECS, must be completely repaired to near original condition, and so as not to impede the natural flow of water.

All repairs must be completed within a reasonable amount of time.

IX. OPERATION

A. Maintenance / Inspection
1. The Owner or Operator of the WECS must submit, on an annual basis, a summary of the operation and maintenance reports to the County. In addition to the above annual summary, the Owner or Operator must furnish such operation and maintenance reports as the County reasonably requests.

2. Any physical modification to the WECS that alters the mechanical load, mechanical load path, or major electrical components shall require re-certification. Like-kind replacements shall not require re-certification. Prior to making any physical modification (other than a like-kind replacement), the owner or operator shall confer with the Building Commissioner to determine whether the physical modification requires re-certification.

3. The Benton County Building Commissioner staff, along with licensed 3rd party professionals retained by the County for the specific purpose of conducting inspections of the WECS shall have the right, at any reasonable time and with sufficient prior notice, to accompany the owner or operator, or his agent, on the premises where a WECS has been constructed, to inspect all parts of said WECS installation and to require that repairs or alterations be made. The owner or operator of a WECS may retain a licensed 3rd party professional engineer familiar with WECS systems to prepare and submit to the Benton County Building Commissioner staff a written report which addresses the repairs or alterations requested, and which suggests alternate methods for addressing the concerns or provides evidence that said repairs or alterations are unnecessary, within thirty (30) days after receiving notice from the Benton County Building Commissioner staff that repairs or alterations are requested, or within a longer period of time mutually acceptable to both parties. The Benton County Building Commissioner staff will consider any such written report and determine whether the repairs or alterations should be made as originally requested or as suggested in the written report. In the event of a dispute between the Benton County Building Commissioner staff and the owner or operator, or a 3rd party professional engineer retained by them, as to the repairs or alterations which are required, the decision of the Building Commissioner shall be final.

4. Inspections, at a fee to be determined from time to time by the Benton County Plan Commission and paid by the applicant, may be made by the Benton County Building Commissioner, or by a qualified inspector for equipment of this type selected by the Benton County Building Commissioner, no more than once annually to certify the safety and maintenance of the WECS and accessory structures.
B. Interference

If, after construction of the WECS, the Owner or Operator receives a written complaint related to interference with local broadcast residential television, telecommunication, communication or microwave transmissions, the Owner or Operator shall take reasonable steps to respond to minimize the complaint.

C. Coordination with Local Fire Department

1. The Applicant, Owner or Operator shall submit to the local fire department a copy of the site plan.

2. Upon request by the local fire department, the Owner or Operator shall cooperate with the local fire department to develop the fire department’s emergency response plan.

3. Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.

D. Materials Handling, Storage and Disposal

1. All solid wastes related to the construction, operation and maintenance of the WECS shall be removed from the site promptly and disposed of in accordance with all federal, state and local laws.

2. All hazardous materials or waste related to the construction, operation and maintenance of the WECS shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.

X. LIABILITY INSURANCE

The Owner or Operator of the WECS(s) shall maintain a current general liability policy covering bodily injury and property damage and name Benton County as an additional insured with limits of at least $2 million per occurrence and $5 million in the aggregate with a deductible of no more than $5 thousand.

XI. DECOMMISSIONING PLAN

Prior to receiving siting approval under this Ordinance, the County and the Applicant, Owner, and/or Operator must formulate a Decommissioning Plan to ensure that the WECS Project is properly decommissioned. The Decommissioning Plan shall include:

A. Assurance that the facilities are properly decommissioned upon the end of the project life or facility abandonment. Applicant’s obligations with respect to decommissioning shall include removal of all physical material pertaining to the project improvements to a depth of 48” beneath the soil surface, and restoration of
the area occupied by the project improvements to as near as practicable to the same condition that existed immediately before construction of such improvements. Prior to issuance of a building permit, the Applicant shall provide a contractor cost estimate for demolition and removal of the WECS facility and will provide financial assurance in an amount at least equal to said demolition and removal contractor cost estimate, through the use of a bond, letter of credit or other security acceptable to the County, for the cost of decommissioning each tower to be constructed under that building permit, which security shall be released when such tower is properly decommissioned as determined by the Benton County Building Commissioner. In the event of abandonment by the owner or operator, the Applicant will provide an affidavit to the Benton County Building Commissioner representing that all easements for wind turbines shall contain terms that provide financial assurance, including access to the salvage value of the equipment, for the property owners to ensure that facilities are properly decommissioned within twelve (12) months of expiration or earlier termination of the project.

B. The Applicant’s, Owner’s, or Operator’s failure to materially comply with any of the above provisions shall constitute a default under this Ordinance.

C. Prior to implementation of the existing County procedures for the resolution of such default(s), the appropriate County body shall first provide written notice to the Owner and Operator, setting forth the alleged default(s). Such written notice shall provide the Owner and Operator a reasonable time period, not to exceed 60 days, for good faith negotiations to resolve the alleged default(s).

D. If the County determines in its discretion, that the parties cannot resolve the alleged default(s) within the good faith negotiation period, the existing County ordinance provisions addressing the resolution of such default(s) shall govern.

XII. Requirements of these ordinances may by waived by the Benton County Board of Zoning Appeals upon application and after public hearings.
ORDINANCE NO. 2006-0307-2

An Ordinance Amending Chapter 8, Article 1, Section 8-10 of the Benton County Code Pertaining to Conditional Uses and Special Exceptions

WHEREAS, the Benton County Advisory Plan Commission has recommended amending Chapter 8, Article 1, Section 8-10 of the Benton County Code pertaining to Conditional Uses and Special Exceptions to allow Wind Energy Conversion Systems; and

WHEREAS, the Board of Commissioners of Benton County desires to amend the Benton County Code, Chapter 8, Article 1, Section 8-10 to allow Wind Energy Conversion Systems.

NOW, THEREFORE BE IT ORDAINED by the Board of Commissioners of Benton County, that the Benton County Code, Chapter 8, Article 1, Section 8-10(b) is amended to include:


This Ordinance shall be in full force and effect from and after its adoption by the Benton County Board of Commissioners, and publication as required by law.

ORDAINED this 7th day of March, 2006.

BOARD OF COMMISSIONERS OF BENTON COUNTY

/s/ Mel Budreau, President

/s/ Kevin Leuck

/s/ Jim Hasser

ATTEST:

/s/ Joan Schluttenhofer, Auditor of Benton County
ORDINANCE NO. 2006-0307-3

An Ordinance Amending Chapter 8, Article 1, Section 8-7 of the Benton County Code Pertaining to Noise Regulation

WHEREAS, the Benton County Advisory Plan Commission has recommended amending Chapter 8, Article 1, Section 8-7 of the Benton County Code pertaining to noise standards adopted for Wind Energy Conversion Systems, such that Chapter 8, Article 1, Section 8-7 is amended to refer to the noise regulations for Wind Energy Conversion Systems contained in Chapter 8, Article 1, Section 8-23; and

WHEREAS, the Board of Commissioners of Benton County desires to amend the Benton County Code, Chapter 8, Article 1, Section 8-7 to have a cross-reference within the Section 8-7 that there are separate regulations for Wind Energy Conversion Systems contained in Section 8-23.

NOW, THEREFORE BE IT ORDAINED by the Board of Commissioners of Benton County, that the Benton County Code, Chapter 8, Article 1, Section 8-7(d)(7) is amended to add the following sentence to the end of the existing subsection:

“Notwithstanding the foregoing noise regulations which apply for Enclosed Industrial Uses, noise standards for Wind Energy Conversion Systems, as that term is defined in Section 8-23 of this Code, shall be governed by the noise regulations contained in Section 8-23 of this Code.”

This Ordinance shall be in full force and effect from and after its adoption by the Benton County Board of Commissioners, and publication as required by law.

ORDAINED this 7th day of March, 2006.

BOARD OF COMMISSIONERS OF BENTON COUNTY

/s/ Mel Budreau, President

/s/ Kevin Leuck

/s/ Jim Hasser

ATTEST:

/s/ Joan Schluttenhofer, Auditor of Benton County
ORDINANCE NO. 2006-0307-4

An Ordinance Amending Chapter 8 of the Benton County Code Pertaining to Wind
Energy Conversion Systems in Bolivar Township

WHEREAS, the Benton County Advisory Plan Commission has recommended amending
Chapter 8 of the Benton County Code pertaining to the siting and operation of Wind Energy
Conversion Systems (WECS), to allow WECS to be sited and operated in all Benton County
townships including Bolivar Township; and

WHEREAS, the Board of Commissioners of Benton County desires to amend the Benton
County Code, Chapter 8, to regulate the siting and operation of Wind Energy Conversion
Systems to allow WECS to be sited and operated in all Benton County townships.

NOW, THEREFORE BE IT ORDAINED by the Board of Commissioners of Benton
County, that the Benton County Code, Chapter 8, Article 1, Section 8-23, subsection “III.
Applicability” is hereby amended to provide that WECS may be sited and operated in all Benton
County townships including Bolivar Township.

This Ordinance shall be in full force and effect from and after its adoption by the Benton
County Board of Commissioners, and publication as required by law.

ORDAINED this 7th day of March, 2006.

BOARD OF COMMISSIONERS OF BENTON
COUNTY

/s/ Mel Budreau, President

/s/ Kevin Leuck

/s/ Jim Hasser

ATTEST:

/s/ Joan Schluttenhofer, Auditor of Benton County