

**Conditional Use Permit No. 092120**  
**by Plymouth County Board of Adjustment**  
**Plymouth County, Iowa**

**Whereas**, the Plymouth County Zoning Board of Adjustment held a properly noticed public hearing on September 21, 2020, in accordance with the Plymouth County Zoning Ordinance for the purpose of considering an application (the “**Application**”) for the issuance of a Conditional Use Permit (“**CUP**”) submitted by Plymouth Wind Energy LLC (the “**Applicant**”) to permit the proposed Plymouth Wind Energy Center (the “**Project**”) for the construction/operation of up to 73 Wind Energy Devices (on 83 requested sites) in the northeast corner of Plymouth County, located in Fredonia, Meadow, Remsen and Henry townships (the “**Subject Property**”). The Application also requests a height variance to allow a substation required for the project to be a maximum height of 95-feet. All of the subject property is zoned AG Agricultural. The Application and this CUP covers the wind energy conversion system, including the Project substation and transmission switching station, as well as an Operations and Maintenance Building, which are part of the Project.

**And whereas**, the Plymouth County Board of Adjustment voted, with 5 members voting to grant the CUP and 0 members voting against granting the CUP, to approve the Application, and with 0 members voting to grant the height variance and 5 members voting against the height variance.

**The Plymouth County Board of Adjustment hereby issues the CUP for the construction/operation of the Project on the Subject Property, as well as the requested height variance**, as described in the Application and shall comply with applicable federal, state and local regulations. The permit is conditioned upon the Applicant executing a Road Use Agreement and Decommissioning Agreement that is acceptable to the Plymouth County Board of Supervisors prior to commencing any construction. The construction and operation of the Project shall conform in all material respects to the representations made by the Applicant in its Application, and with the terms of the Road Use Agreement entered into between Applicant and the County.

This permit and the restrictions herein shall be binding upon all successors and assigns and shall run with the land. In the event Applicant shall sell or transfer ownership of the Project, all conditions and requirements identified in the Application, all agreements with Plymouth County, this CUP and all conditions of this CUP shall be transferrable to and enforceable upon the new owner of the Project.

Date: September 21, 2020

Permit Issued By:   
Nancy Anderson, Chairperson of the Board of Adjustment

Attested By:   
Alan Lucken, Zoning Administrator



**APPLICATION FOR  
CONDITIONAL USE  
PERMIT**

**FOR THE  
PLYMOUTH WIND  
ENERGY CENTER**

**Invenergy**

**PLYMOUTH COUNTY, IOWA**

**8/19/20**

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## 1.0 INTRODUCTION

### 1.1 OVERVIEW

Plymouth Wind Energy LLC (“PWE”) submits this application (“**Application**”) for a Conditional Use Permit (“**CUP**”) to construct and operate the proposed Plymouth Wind Energy Center (the “**Project**”) in Plymouth County, Iowa. The Project is to be located in the townships of Meadow, Fredonia, Remsen and Henry in Plymouth County, Iowa and will be approximately 200 megawatts (“**MW**”) in size and includes a project substation, an electric switching station, and an operations and maintenance building.

This Application complies with and demonstrates that the Project meets all requirements of Section 6.10 – Wind Energy Conversion Systems (“**WECS**”) – of the Plymouth County, Iowa Zoning Ordinance (“**Ordinance**”), as well as the additional sections of the Ordinance incorporated therein by reference, and that the Project is eligible for the requested CUP.

The Iowa Legislature has provided that it is the policy of the state of Iowa “to encourage the development of alternative energy production facilities” – like wind – “in order to conserve our finite and expensive energy resources and to provide for their most efficient use.” See Iowa Code §§ 476.41-.43, .53, .53A and § 18B.1(3). The Project not only will support state policy, but also it will provide extensive local benefits: up to \$52 million in new property tax revenue to the County over the life of the project; approximately \$65 million in payments to Plymouth County landowners over the life of the Project; and approximately 200 construction-period and 10 new permanent jobs.

Based on PWE’s compliance with all applicable provisions of the Ordinance, and the benefits it will provide Plymouth County and the state of Iowa, PWE respectfully requests the County approve the Application and grant a CUP for the Project as described below.

Figure 1.1



## 1.2 APPLICANT INFORMATION

PWE is an affiliate of Invenergy LLC, a leading developer of renewable and other clean energy generation and cutting-edge energy storage solutions. Invenergy, North America’s largest independent, privately-held renewable energy company, and its affiliated companies have developed approximately 24,000 megawatts of projects that are in operation, construction or contracted, including wind, solar, and natural gas-fueled power generation and energy storage projects. Specifically, Invenergy has developed or is developing nearly 13,000 megawatts of wind projects alone. Invenergy has successfully completed or is in the process of completing more than 12 wind energy projects in Iowa, working in 21 different Iowa counties. PWE and Invenergy LLC and their affiliated entities are collectively referred to as “**Invenergy.**”

Founded in 2001, Invenergy has an excellent track record in the energy industry and a highly experienced management team. The members of Invenergy’s senior management team have an average of approximately 20 years of experience in diverse areas of the energy market, including development, engineering, construction, finance, operations, asset management and energy trading and contracting.

Invenergy is headquartered in Chicago, Illinois and has North American regional offices located in Denver, Colorado and Toronto, Ontario, Canada.

## 1.3 PROJECT STRUCTURE AND CONTACTS

PWE, a special-purpose limited liability company, was created in order to develop, permit, finance,

construct, own and operate the Project. Contact information for each company (collectively, “Applicant”) is as follows:

**Invenergy LLC**  
One South Wacker Drive  
Suite 1800  
Chicago, IL 60606  
Phone: (312) 224-1400  
Fax: (312) 224-1444

**Plymouth Wind Energy LLC**  
One South Wacker Drive  
Suite 1800  
Chicago, IL 60606  
Phone: (312) 224-1400  
Fax: (312) 224-1444

The Project contacts are:

**Matthew Bertler**  
Senior Analyst, Renewable Development  
Invenergy LLC  
One South Wacker Drive  
Suite 1800  
Chicago, IL 60606  
Phone: (312) 429-2551  
mbertler@invenergy.com

**Gabe Klooster**  
Manager, Renewable Development  
Invenergy LLC  
One South Wacker Drive  
Suite 1800  
Chicago, IL 60606  
Phone: (312) 638-8478  
gklooster@invenergy.com

While these are the relevant entities at this time, it is common in the industry for wind projects to be sold in whole or in part or otherwise transferred at various stages of project development. Applicant requests that the application and resulting permits and any rights thereunder be expressly made transferrable.

## 2.0 PROJECT DESCRIPTION

### 2.1 PROJECT SUMMARY

The Project, as currently proposed, will consist of 73 turbines. This Application seeks approval for 83 total sites, in order to provide 10 alternate sites that could be used due to unexpected technical constraints. PWE will provide a revised set of drawings to depict the final turbine locations (“as-builts”) upon completion of construction. The Project is anticipated to utilize 65 GE 2.8-127 turbines as well as 8 GE 2.3-116 or similar model turbines (PWE reserves the right to substitute turbines with similar attributes), with a total nameplate generating capacity of approximately 200 MW of power. Associated facilities include graveled roads to access each turbine, above ground ancillary electrical structures and below ground electrical cabling to collect and transmit the power generated from each turbine (known as “gathering lines”) to a Project substation. Each gathering line will serve turbines with less than 25 MW in aggregate nameplate capacity. The Project may also include permanent, non-guyed, meteorological (“MET”) towers each with a height anticipated at approximately 300 feet. Finally, the Project will include an operations and maintenance (“O&M”) building. PWE anticipates that the Project could begin construction in the fourth quarter of 2020 and commercial operation of all or part of the project as early as the fourth quarter of 2021 pending completion of permitting, agency approvals, and other development and construction activities.

## 2.2 PROJECT LOCATION

The Project is located in the northeastern portion of Plymouth County and will encompass an area within the unincorporated areas of Meadow, Fredonia, Remsen and Henry townships (Table 2.2). Approximately 24,000 acres of land are currently under contract with landowners to host Project facilities. The Project area was selected based on a number of factors, including, but not limited to, the wind resource, land use, proximity to existing transmission infrastructure, the public interest and the natural environment.

**Table 2.2**

COUNTY	TOTAL AREA	POLITICAL TOWNSHIP	SECTION(S)
Plymouth County	Total Approx. 54,000 Acres	Fredonia	Section 1
		Meadow	All sections 1 – 36
		Remsen	All sections 1 - 36
		Henry	Sections 1 - 12

## 3.0 PLYMOUTH COUNTY ORDINANCE REQUIREMENTS

### 3.1 COMPLIANCE WITH ORDINANCE SECTION 6.10

Section 6.10 of the Ordinance provides the Permit Requirements for Wind Energy Conversion Systems (“WECS”). PWE addresses below its compliance with each requirement.

#### *Section 6.10(B)(1) - Setbacks*

PWE has worked extensively with local landowners, government officials and other affected parties to develop an initial Site Plan that optimizes wind resources while minimizing impacts on land resources and potentially sensitive areas. The County setback requirements, in addition to the topography of the site, wind resource assessment and the selected turbine technology, dictate turbine spacing.

In compliance with the Ordinance, the location of each turbine will comply with the following minimum turbine setback requirements:

- Human Occupied Dwellings                      Greater of 1,200 feet or 2 times the total turbine height
- Livestock or Animal Shelters                      Greater of 500 feet or 1 time the total turbine height
- Public Right-of-Ways                                  115% of the total turbine height
- Overhead Utility Easements                      115% of the total turbine height
- Neighboring Property Lines and Easements Granted by Neighboring Properties                      115% of total turbine height (unless appropriate encroachment easements are in place under Section 6.10(B)(1)(d) of the Ordinance)

In accordance with Section 6.10(B)(1)(f) of the Ordinance, all setback distances in the Site Plan are measured from the center of the support structure for the WECS turbine to the closest point of the structure, right-of-way or utility easement or encroachment easement. PWE communicated with all overhead utility owners within the Project Area and confirmed the understanding that overhead utility distribution lines are run within the County right-of-way. The utility easements for overhead high-voltage transmission lines are delineated on the Site Plan. In accordance with Section 6.10(B)(1)(g) of the Ordinance, total turbine height is measured from the base of the support structure to the tip of the turbine rotor at its highest position.

The Site Plan attached hereto demonstrates that each turbine conforms to the applicable County setback requirements set forth in the Ordinance. To the extent adjustments need to be made prior to operations, the final locations of the WECS turbines will be confirmed with the submission to the County of as-builts following construction.

***Section 6.10(B)(2) – Other Standards***

Section 6.10(B)(2) provides additional standards applicable to WECS. PWE's compliance with each of the subsections of Section 6.10(B)(2) is addressed below:

- (a) Color and Finish. Each turbine will be in its factory finish, colored non-reflective white.
- (b) Signage. No turbine will be used for display of advertising except for reasonable identification of the manufacturer or the owner/developer of the Project (as defined by the Ordinance) or safety warning signage. No signage will appear on the support tower.
- (c) Mitigation. Invenergy agrees that it shall be responsible for satisfactory mitigation of any damages to drainage systems, roadways or adjacent properties caused by construction or operation of the WECS, and agrees that it shall be responsible for the resolution of substantiated electrical interference issues caused by operation of the WECS. Invenergy is working with the county on separate road use and decommissioning agreements that will be executed prior to start of construction.
- (d) Lighting. All lighting on the WECS structures and turbine will comply with the requirements of the Federal Aviation Administration.

***Section 6.10(B)(3) – Application Requirements***

Section 6.10(B)(3) of the Ordinance sets forth specific requirements related to making application for a CUP for a commercial WECS. PWE's compliance with the requirements of Section 6.10(B)(3) is addressed below:

- (a) Pre-Application Informational Conference. In accordance with Section 6.10(B)(3)(a) of the Ordinance, PWE held a Pre-Application Informational Conference ("Conference") on July 1, 2020. As required by Ordinance Section 6.10(B)(3)(a)(1), the Conference was held not less than 30, nor more than 90 days from the date of this Application. Due to the outbreak of the COVID-

19 virus, written permission was obtained from the County to hold the Conference via video conference, for the convenience and safety of all interested parties.

As required by Ordinance Section 6.10(B)(3)(a)(3), notice of the Conference was published in the official county newspaper at least once each of the two weeks prior to the date of the conference. The notice was not less than 1/8 of a page in the newspaper, and included the name of a contact person for the owner developer, a map and description of the proposed project, the time, date and location of the Conference, and a clear concise description of the proposed project. A copy of the notice published in the newspaper and a copy of the PowerPoint presentation presented at the Conference is attached hereto in **Appendix A**.

- (b) Agency Notification. Section 6.10(B)(3)(b) of the Ordinance requires the owner/developer of the proposed project to provide notice of the project to a list of interested agencies not less than 120 days prior to the projected date of the public hearing on the conditional use permit application by the Board of Adjustment. PWE provided such notice to the required agencies listed in Section 6.10(B)(3)(b) of the Ordinance and provided documentation of that notice to the Zoning Administrator at the time of providing the notifications to the agencies. Attached hereto in **Appendix B** are copies of the agency notifications, along with return correspondence from the agencies, where a response was received.
- (c) Public Notice. Section 6.10(B)(3)(c) of the Ordinance requires that notice of the time, date and location of the public hearing on the conditional use shall be given by certified mail not later than 15 days prior to the hearing to all owners of property located within one mile of the property for which the conditional use is requested. Once the Board of Adjustment determines the date, time and location for the hearing on this Application, PWE will provide the required notice by certified mail and provide proof of such notice to the Board of Adjustment. A list and corresponding map of all property owners owning property (owner name and PIN number listed) located within one mile of the Project site is included in **Appendix C**. A spreadsheet with corresponding mailing addresses to those owners and the PINs is included in **Appendix C** as well.
- (d) Simulation. Section 6.10(B)(3)(d) requires the owner/developer to provide photographic simulations of the proposed project illustrating the location and scale of the WECS facilities as seen from abutting public rights-of-way and from human occupied dwelling. Enclosed with this Application in digital format are exemplary simulations meeting this requirement for the present Project. See **Appendix D**. The reference points from which these photos were taken are shown on a corresponding map in **Appendix D**. Four (4) photos in each cardinal direction were taken at the reference points and this is labeled on each photo.

### 3.2 COMPLIANCE WITH ORDINANCE SECTION 9.06(B)

Section 6.10(B)(3) incorporates by reference the requirements of Section 9.06(B) of the Ordinance. PWE's compliance with those requirements is addressed below.

***Section 9.06(B)(1) – Vicinity Map***

Enclosed in **Appendix E** is a vicinity map showing the Project boundaries and participating properties, and ownership of each property within 500' of the Project boundary. The use of this ground is predominantly agricultural.

***Section 9.06(B)(2) – Site Plan***

Enclosed in **Appendix F** is a Site Plan for the entire project, and individual site maps for each wind turbine (collectively the "Site Plan") showing the proposed site layout. The Site Plan is drawn to scale (although individual elements may be larger to allow easier review) and includes property lines, wind turbines, connection points with the electrical grid and operation and maintenance structures. Section 9.06(B)(2) of the Ordinance lists specific items to be included in a Site Plan, some of which are applicable to a WECS Project and some of which are not. PWE addresses those specific items below:

- (a) Lot Line and lot size. The Site Plan includes maps showing the property lines and sizes of the participating properties and non-participating properties within the Project area.
- (b) Locations and sizes of all structures. The Site Plan indicates locations and sizes of all WECS structures. Exact locations will be determined based on geotechnical analysis, but will be within 500 feet of the locations shown on the Site Plan.
- (c) Construction limits line. Exact cut and fill lines are not yet determined. All construction, including cut and fill, will be within the project boundary shown on the Site Plan. Specific cut and fill information can be provided at the time of construction if requested by the County.
- (d) Location and grade of all driveways and roadways. Information on location and grades for access roads will not be known until closer to construction, at which time they will be determined in consultation with individual landowners. Location and grade information can be provided to the County at the time of construction.
- (e) Distances between structures, lot lines, and right-of-way. The Site Plan indicates all setbacks from structures, property lines, and rights-of-way.
- (f) Intended use and occupancy of each structure. The wind turbines and MET towers are for use in the generation of wind energy and are not occupied structures.
- (g) Topographic/grade information. PWE does not expect any driveways/roadways to exceed 10% grade. Topographic and grade information for each turbine is not available at this time. After a permit is granted, geotechnical analysis will occur to finalize the exact placement of turbines. Topographic and grade information can be provided at the time of construction.

*Section 9.06(B)(3) – Survey*

Section 9.06(B)(3) indicates that the Zoning Commission or the Board of Adjustment may require that a site survey by a licensed land surveyor be submitted. A site survey has not yet been requested of PWE, but PWE can provide site surveys for each wind turbine site upon request prior to the commencement of operations.

*Section 9.06(B)(4) – Liquid and Solid Waste*

The structures involved in the Project do not generate liquid or solid waste, and therefore this section of the Ordinance is not applicable to the Project.

*Section 9.06(B)(5) – Compliance with State and Federal Laws*

PWE agrees that the construction and operation of the Project will be performed in compliance with all applicable state and federal laws and regulations.

#### 4.0 ADDITIONAL INFORMATION

Although not specifically required by the Ordinance, PWE is describing and submitting the following additional information and documentation to assist the Board in its evaluation of this Application:

Land Rights Documentation. A spreadsheet of participating landowners and copies of the memoranda of easements reflecting PWE's rights in the participating properties are attached as **Appendix G**.

Turbine Specifications. The Project is anticipated to utilize a combination of GE model 2.8-127 and GE model 2.3-116 wind turbines. The manufacturer's information for the proposed turbine models can be found in **Appendix H**.

Decommissioning Agreement. A Decommissioning Agreement is currently being negotiated with the County and will be finalized prior to the BoA Hearing for this Conditional Use Application.

Road Use Agreement. A Road Use Agreement is currently being negotiated with the County and will be finalized prior to the BoA Hearing for this Conditional Use Application.

#### 5.0 HEIGHT VARIANCE FOR SUBSTATIONS

Section 6.10 provides regulations for WECS. Part of the system is the project substation and its switching connection to the interconnected transmission grid. Section 6.10 provides a specific height regulation for wind turbines, but not for other elements of the complete system. Section 6.10(B) provides that WECS may be established within various listed districts, including A-1 (Primary Agriculture). Section 6.10(D) provides that a variance may be granted for WECS if a strict application of the regulations would result in extraordinary hardship. In this case, the limitation in Section 6.10 of the additional height solely to the wind turbines, and the incorporation of the regulations in the A-1 district would preclude

the project substation and electric switching station. The maximum height for an “Other Conditional Use” would be 65 feet. The maximum height required for the substation and switching station will be 95 feet. Here, because the inability to develop the substation and switching station would render the WECS inoperable, the variance is needed to both address a hardship and to effectuate the purpose of the WECS Ordinance.

## 6.0 APPLICATION FEE

With this application PWE provides a check that includes payment of \$350 as required by the Ordinance.

## 7.0 CONCLUSION

By this Application and the attached appendices, PWE has demonstrated compliance with all permit requirements in the Ordinance, and all requirements to construct and operate Commercial Wind Energy Conversion Systems in Plymouth County. A certified check for the required fee is presented with this Application. All requirements for PWE to obtain a CUP have been met, and significant efforts beyond those required in the Ordinance have been made as the layout was designed to minimize Project impacts on agricultural operations, environmental resources, and other sensitive features. Granting a CUP for the Project will bring investment, jobs, tax revenues and revenues for landowners in Plymouth County, while supporting the express policy of the state of Iowa to promote additional wind energy development.

Accordingly, PWE respectfully requests the County timely grant the requested CUP as described in this Application and in the form of the Proposed Permit attached as **Appendix I**.