

Invenergy

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August 26, 2016

VIA ELECTRONIC MAIL TO:

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**RE: Palo Alto County Wind Energy Conversion Systems Ordinance – August 11, 2016 Draft
Final Report Recommendation to Supervisors**

Dear Palo Alto County Board of Supervisors:

As you are aware, Invenergy LLC (“Invenergy”) is presently working on the development of the proposed 340 MW Palo Alto Wind Energy Project, which is to be located entirely within Palo Alto County, Iowa. The viability of this project depends upon the adoption of a wind ordinance that does not in fact make it impossible, or overly burdensome and costly, to build the project. As such, Invenergy, in conjunction with MidAmerican Energy Company (“MidAmerican”), has reviewed the Palo Alto County Wind Energy Conversion Systems Ordinance August 11, 2016, Draft Final Report Recommendation to Supervisors and



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urges your consideration of the following concerns and recommendations as they relate to finalizing the terms of the Wind Energy Conversion System Ordinance, as nearly all of these revisions are necessary in order to establish a wind ordinance that will actually allow a wind project to be developed:

1. **Introduction.** Due to the complexity of the issue, Invenergy and MidAmerican recommend that the Palo Alto County Board of Supervisors (“BOS”) conduct a second and third reading of the proposed Wind Energy Conversion Systems Ordinance in order to ensure that the landowners, other community stakeholders, and the wind energy developers have ample opportunity to attend such meetings, comment on the proposed Wind Energy Conversion Systems Ordinance and the BOS may implement revisions as deemed prudent before it is finalized.
2. **Section 3.m – Definition of “Wind Energy Device Accessory Building or Structure”.** Invenergy and MidAmerican recommend the inclusion of language clarifying that this definition (and therefore Section 5.o which sets forth the setback for Wind Energy Accessory Buildings or Structures) does not include operations and maintenance buildings that are constructed for the project. Instead, the placement of such operations and maintenance buildings would be regulated by the standard Palo Alto Zoning Ordinance as it relates to lot requirements for standard commercial buildings. Specifically, Invenergy and MidAmerican recommend that Section 3.m be replaced with the following, with the changes denoted in bold and underlined font:

“Wind Energy Device Accessory Building or Structure” – Means any permanent building or structure located within the same defined boundaries of a permitted Wind Energy Conversion System or on the same lot, parcel, or tract of land of a single Wind Energy Device; and is clearly considered customarily and incidental and subordinate to the principal Wind Energy Device(s). Any Wind Energy Device Accessory Building or Structure may contribute to the successful operation, convenience and necessity of the principal Wind Energy Device(s). Examples of Wind Energy Device Accessory Buildings or Structures may include, but not be limited to, electrical substations, switching stations or any other permanent structures used in a capacity similar to electrical substations and associated with Wind Energy Conversion Systems. This definition shall not include any above ground or buried transmission lines, wires, or other electrical equipment in addition to any above ground junction boxes, step-up transformers, **operations and maintenance buildings** or any temporary or non-permanent buildings or structures used during the construction of a Wind Energy Device or Wind Energy Conversion System. For the avoidance of doubt, junction boxes are small pieces of electrical equipment that are typically no larger than approximately 3’ tall above the surface and approximately 4’ in width and 3’ in depth. Step-up

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transformers are pieces of electrical equipment approximately 6' tall above the surface and approximately 6' in width and 6' in depth and are usually located in close proximity to the base of the Wind Energy Device.

3. **Section 4.c. – Untitled.** Invenergy and MidAmerican recommend that Section 4.c be incorporated into Section 4.a so that it is clear that the notice requirements set forth in Section 4.c apply to the Owner/Developer's notice requirements prior to hosting the pre-application meeting. Without altering the language, we recommend that Section 4.c be deleted and Section 4.a be revised to read as follows, with the added language denoted in bold and underlined font:

Pre-Application Meeting. Whenever a Wind Energy Conversion System is proposed in the jurisdiction of Palo Alto County, the Owner/Developer is required to hold a public informational meeting on the proposed development within 90 days prior to submitting an application for a conditional use permit. Public notice of the meeting shall be published in a newspaper of general circulation within the vicinity of the proposed project site as well as published within the official publication(s) of Palo Alto County no less than four (4) and no more than 20 days prior to the meeting. The public notice shall include at a minimum the name of the proposed project, a contact person for the project, the location of the project, the time and place of the meeting, and a description of the project activities. **The Owner/Developer shall also give notice by ordinary U.S. mail to all property owners within 5,280 feet (one mile) from the Wind Energy Devices. Written notice of that pre-application meeting shall be postmarked not less than four (4), nor more than twenty (20) days prior to the pre-application meeting.** The Owner/Developer is responsible for meeting all of these requirements and shall provide documentation to Palo Alto County that these public notice requirements have been satisfied prior to submitting an application for a conditional use permit.

4. **Section 4.e – Site Plan.** Invenergy and MidAmerican recommend that the last bullet describing the documents that the site plan must include be revised to clarify that drain tile documents provided will only be those that are publicly available for public drain open drainage ditches and public subsurface drainage tiles. We recommend this revision to the language because it would be impossible for Invenergy (or any other wind developer working in the County) to map out all of the private and otherwise undocumented drain tiles inside of our project area. As such, we recommend that such last bullet be revised to read as follows, with the changes denoted in bold and underlined font:

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- **Publicly available** documentation of **public** surface open drainage ditches and **public** subsurface drainage tiles
5. **Section 4.f – Public Hearing.** Invenergy and MidAmerican recommend the inclusion of language clarifying within how many days after the public hearing the Palo Alto County Planning & Zoning Commission will deliver their written recommendation and report to the Palo Alto County Board of Supervisors. It was our understanding that at the public hearing hosted by the Planning & Zoning Commission on August 11, 2016, the Planning & Zoning Commission decided that they would provide said written recommendation and report to the Palo Alto County Board of Supervisors within seven (7) days of the public hearing. Accordingly, we recommend that Section 4.f be replaced with the following, with the changes denoted in bold and underlined font:

Public Hearing. Within 60 days of receiving a conditional use permit application for a Wind Energy Conversion System, the Palo Alto County Planning and Zoning Commission shall schedule a public hearing regarding the conditional use permit. Notice shall be given to the public no less than four (4) and no more than 20 days prior to the public hearing by publication in the official newspaper(s) of Palo Alto County as well as publication in a newspaper within the general vicinity of the proposed project site. Prior to the public hearing, notice shall also be given by ordinary mail to all property owners located within 5,280 feet (one mile) of each proposed Wind Energy Device for which the conditional use permit is requested. Prior to the conclusion of the public hearing, the Palo Alto County Planning and Zoning Commission shall make a recommendation regarding the conditional use permit application to the County Board of Supervisors. Such recommendation shall be made in writing and shall include a written report indicating the reasons for its recommendation. **Said written recommendation and report shall be delivered to the County Board of Supervisors no more than seven (7) days after the public hearing.** The Zoning Administrator shall notify the applicant of the recommendations of the Planning and Zoning Commission and shall include a copy of the Planning and Zoning Commission’s report indicating the reasons for its recommendation.

6. **Section 4.g – Review and Approval or Rejection of the Application for a Conditional Use Permit by the County Board of Supervisors.** Invenergy and MidAmerican are not stating a legal opinion, but do recommend that the County Attorney and BOS review Section 335.10 “Board of Adjustment – Review and Remand” regarding the procedures legally required to issue conditional or special use permits for those counties that exercise zoning jurisdiction. Section 335.10 is copied



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below for your convenience. As you will see, in pertinent part, this Section requires that the Board of Adjustment consider special exceptions to the terms of a zoning ordinance. Accordingly, Invenergy and MidAmerican urge the County to consider whether under the Wind Energy Conversion System Ordinance the conditional use permit should be granted by the Board of Adjustment rather than the Board of Supervisors.

335.10 BOARD OF ADJUSTMENT -- REVIEW AND REMAND.

The board of supervisors shall provide for the appointment of a board of adjustment, and in the regulations and restrictions adopted pursuant to the authority of this chapter shall provide that the said board of adjustment may, in appropriate cases, and subject to appropriate conditions and safeguards, make special exceptions to the terms of the ordinances or regulations in harmony with its general purpose and intent and in accordance with the general or specific rules therein contained, and provide that any property owner aggrieved by the action of the board of supervisors in the adoption of such regulations and restrictions may petition the said board of adjustment direct to modify regulations and restrictions as applied to such property owners.

The board of supervisors may provide for its review of variances granted by the board of adjustment before their effective date. The board of supervisors may remand a decision to grant a variance to the board of adjustment for further study. If remanded, the effective date of the variance is delayed for thirty days from the date of the remand.

- 7. Section 5.b – Setbacks from Permanent Residential Dwellings.** Invenergy and MidAmerican urge the BOS to reconsider the currently proposed 2,640’ setback from Permanent Residential Dwellings, as a setback at or near 2,640’ would make developing a Wind Energy Conversion System in the County practically impossible. As we have explained, counties across Iowa vary from having no zoning, and therefore no required setback from Permanent Residence Dwellings, to having a maximum of a 1,320’ setback from Permanent Residential Dwellings. Furthermore, important to note is the fact that the 1,320’ setback from Permanent Residential Dwellings is required in Polk County, which is the most highly populated county in the State of Iowa. While we continue to recommend that the BOS implement a setback from Permanent Residential Dwellings that is in line with what other counties in Iowa have implemented – that is, generally between 1,000’-1,320’ – we believe we would still be able to move forward with the project so long as the setback from Permanent Residential Dwellings remains at or under 1,500’ with the opportunity to obtain a waiver from landowners and site wind turbines closer than 1,500’ to participating or waived residences. Please understand that a setback requirement greater than 1,500’ would make it virtually impossible for Invenergy to move forward with the proposed project and may very well deter other wind development within the County. We understand the BOS is aware of the positive financial impact WECS would bring to the County and the lost opportunity for the County if WECS were not developed.

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8. **Section 5.c – Setbacks from Property Lines.** Invenergy and MidAmerican urge the BOS to reconsider the currently proposed 1,000' setback from non-participating property lines, as this proposed setback is significantly higher than the property line setbacks imposed by no less than 15 other counties in Iowa (where the standard is typically 1.1 x Tip Height) and, as with the setback from Residential Dwellings, impede the ability to develop the project. This is especially important given that the Wind Energy Conversion System Ordinance, as currently proposed, already states that no Wind Energy Device may overhang any adjoining property without securing an agreement from said adjoining property owner. As such, Invenergy and MidAmerican urge the BOS to implement a 1.2 x Tip Height setback from non-participating property lines and recommend that Section 5.c be replaced with the following:

Setbacks from Property Lines. Wind Energy Devices shall be set back a distance equal to one hundred twenty percent (120%) of its total height from any existing property line unless a waiver in the form of written permission is granted by the affected property owner. The measurement for the set back from property lines shall be between the center of the base of the Wind Energy Device and the closest point along the adjacent property line.

9. **Section 5.e – Setbacks from Cemeteries.** Invenergy and MidAmerican recommend that the BOS reconsider the currently proposed 2,640' setback from cemeteries. In the 15 county ordinances that we have recently reviewed, only one county (Webster) required a setback from cemeteries at all, and the setback required in that county is 0.5 x Rotor Diameter. Given the turbine model that we are considering for our project, this would translate to approximately 246'. Accordingly, Invenergy and MidAmerican recommend that the BOS consider implementing a setback from cemeteries that does not exceed 1,000'.
10. **Section 5.o – Wind Energy Accessory Buildings or Structures.** Invenergy and MidAmerican urge the BOS to reconsider the currently proposed 2,640' setback for Wind Energy Accessory Buildings or Structures from Permanent Residential Dwellings. As was explained, siting a project substation is already a difficult task, as the substation must be located on land immediately adjacent to the 345kV MidAmerican transmission line that is being constructed in the County, on level terrain and outside of floodplains, among many other factors. Furthermore, even if the perfect site is found, the landowner who owns that land must be willing to sell that acreage to Invenergy. If we were required to comply with a 2,640' setback from Permanent Residential Dwellings on top of these already stringent requirements, we very well may not be able to site our project substation, which is a necessary component of the project. On a separate note, substations are located near homes all across the state, one being located in the Emmetsburg city limits and near a number of residences. While the substation does produce minimal light and sound, the proposed 2,640' setback from Permanent Residential Dwellings is excessive, unnecessary and unduly cumbersome. As such, Invenergy and MidAmerican recommend that the BOS implement no more than a 1,000' setback for Wind Energy Accessory Buildings or Structures from Permanent Residential Dwellings



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and 100’ from public roads, public right-of-ways, railroad right-of-ways, or other public utility facilities.

11. **Section 5.p – Shadow Flicker.** Invenergy and MidAmerican urge the BOS to remove Section 5.p, which prohibits the occurrence of any shadow flicker on an “existing residential structure” because such requirement effectively prohibits the construction of any Wind Energy Conversion Systems, as shadow flicker is an unavoidable consequence of having an operational Wind Energy Conversion System in the County. This is also inconsistent with both other ordinances and with industry standards around the world. In lieu of this provision, Invenergy and MidAmerican urge the BOS to consider one of the following options:

Option #1: The counties in the State of Iowa in which the ordinance addresses shadow flicker caused by the operations of WECS requires the developer minimize impacts from any shadow flicker on Permanent Residential Dwellings located within the project area. Invenergy and MidAmerican urge the BOS to implement a similar standard here. To do so, Invenergy and MidAmerican recommend that the BOS revise Section 5.b as follows, with the changes denoted in bold and underlined font:

Setbacks from Permanent Residential Dwellings. Wind Energy Devices shall be set back a distance of 1,500 feet from any Permanent Residential Dwellings unless a waiver in the form of written permission is granted by the affected property owner. The measurement between the dwelling and Wind Energy Device is to be taken from the nearest point of the Permanent Residential Dwelling to the center of the Wind Energy Device structure’s base.

A greater setback may be required to minimize shadow flicker, nuisance noise, and other possible documented effects to humans living in these dwellings, all of which shall be addressed as part of the application made by the Owner/Developer for a conditional use permit.

At no time shall any part of the Wind Energy Device or Meteorological Tower overhang any adjoining property without securing appropriate agreements from the affected adjoining property owners.

Option #2: If the BOS is unwilling to consider Option #1 above, then Invenergy and MidAmerican recommend that the BOS implement a set hourly standard for the allowable amount of shadow flicker that may occur on any given Permanent Residential Dwelling



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within the project area as caused by the Wind Energy Conversion System, with a waiver from the affected landowner being required in the event that the shadow flicker on that particular Permanent Residential Dwelling be expected to exceed such hourly limit. To do so, Invenergy and MidAmerican recommend that Section 5.p be replaced with the following:

Shadow Flicker. The Owner/Developer shall use shadow flicker computer modeling to estimate the amount of shadow flicker anticipated to be caused by the WECS and shall design the WECS so that computer modeling indicates that no non-participating Permanent Residential Dwelling will experience more than 30 hours per year of shadow flicker under planned operating conditions. If an owner of a non-participating Permanent Residential Dwelling experiences more than 50 hours of shadow flicker per year under WECS normal operating conditions, then the Owner/Developer shall be obligated to mitigate such shadow flicker to comply with the terms of this ordinance.

12. **Section 6.a.iii – Drainage System.** As currently proposed, Section 6.a.iii requires the Owner/Developer of a Wind Energy Conversion System to maintain a two (2) foot separation distance in all directions between the underground collection cables installed for the project and existing drainage tile and drainage structures, regardless of whether such drainage tile and structures are public or private. Invenergy and MidAmerican urge the BOS to revise this Section 6.a.iii so that the two (2) foot separation requirement only applies to public drainage tiles and structures. This change is necessary because it would be impossible for an Owner/Developer to locate all private drainage tile and structures prior to designing and commencing construction of an underground collection cable system, and therefore would considerably drive up project costs to a point where the construction of a Wind Energy Conversion System would be uneconomical and therefore unfeasible. Accordingly, Invenergy and MidAmerican recommend that Section 6.a.iii be revised to read as follows, with changes denoted in bold and underlined font:

All underground electrical collection cable systems shall be installed so as to maintain a two (2) foot separation distance in all directions, i.e.: horizontal and vertical and diagonal from existing **public** drainage tile and **public** drainage structures.



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Conclusion:

While the majority of the currently proposed Wind Energy Conversion System Ordinance, as recommended per the Planning & Zoning Commission’s August 11, 2016 report, is workable, there are some key provisions that must be changed if the County desires to attract and encourage the development of Wind Energy Conversion Systems in the County and with it bringing increased property tax revenues, jobs, clean energy and extra income for those participating in a project to the County’s residents. As stated in Section 1 of the currently proposed Wind Energy Conversion System Ordinance:

“The purpose of this ordinance is to provide for the regulation of Owners/Developers engaged in the construction, erection, placement, location, operation, and maintenance of WECS in Palo Alto County; and to preserve and protect public health and safety without significantly increasing the cost or decreasing the efficiency of these systems and associated structures.”

Without the incorporation of the changes recommended above for the specific Sections referenced immediately below, Invenergy will not be able to continue to progress the development of the proposed 340 MW Palo Alto Wind Energy Project in Palo Alto County:

- Section 4.e
- Section 5.b
- Section 5.c
- Section 5.o
- Section 5.p
- Section 6.a.iii

While Invenergy and MidAmerican strongly urge the BOS to consider the changes recommended to the other Sections of the currently proposed Wind Energy Conversion System Ordinance, such changes are not critical to the development of a Wind Energy Conversion System in Palo Alto County. Nonetheless, for your convenience and consideration, attached you will find a recommended Wind Energy Conversion System Ordinance that incorporates all of the above-mentioned suggested changes except for those mentioned in Paragraph 1 (regarding the Introduction) and Paragraph 6 (regarding the granting of conditional use permits by the Board of Adjustment).

We thank you for your time, consideration, and efforts put forth to develop a Wind Energy Conversion System Ordinance that is workable for both the residents of Palo Alto County and the wind energy developers who desire to bring wind energy and its financial benefits to the County.

If you have any questions or would like to discuss our recommendations further, please do not hesitate to contact us at the phone numbers or email addresses listed below.

MidAmerican is also signing this letter to show its general support of the comments and recommendations that Invenergy is providing in this letter.

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Best Regards,



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