

Minnesota Public Utilities Commission

Staff Briefing Papers

Meeting Date: October 30, 2014.....Agenda Item *1

Company: Black Oak Wind, LLC and Getty Wind Company, LLC

Docket No. IP-6853/WS-10-1240

In the Matter of the Application of Black Oak Wind, LLC for a Site Permit for a 42 Megawatt Large Wind Energy Conversion System in Stearns County, Minnesota

IP-6866/WS-11-831

In the Matter of the Application of Getty Wind Company, LLC for a Site Permit for a 40 Megawatt Large Wind Energy Conversion System in Stearns County, Minnesota

Issues: Should the Commission amend the Black Oak and Getty Site Permits to specify a different type of wind turbine model, a different total number of turbines, and a different preliminary turbine layout?

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Relevant Documents

- Black Oak Site Permit..... January 28, 2013
- Getty Site Permit..... January 28, 2013
- Black Oak/Getty Petition for Permit Modification September 19, 2014
- Department of Natural Resources Comments on Petition September 29, 2014
- Department of Commerce EERA Comments on Petition September 30, 2014
- Public Comments on Petition Multiple Dates

Attached Documents

- Attachment 1 – Proposed Permit Language Modifications to Black Oak Wind Permit
- Attachment 2 – Proposed Permit Language Modifications to Getty Wind Permit

The attached materials are work papers of the Commission staff. They are intended for use by the Minnesota Public Utilities Commission and are based upon information already in the record unless noted otherwise.

I. STATEMENT OF THE ISSUES

Should the Commission amend the Black Oak and Getty Site Permits to specify a different type of wind turbine model, a different total number of turbines, and a different preliminary turbine layout?

II. STATUTES AND RULES

Under Minn. Stat. § 216F.04(d), and Minn. R. 7854.1300, subp. 2, the Commission has authority to modify or amend a site permit for a wind project any time for good cause.

In addition, Section 11.2 of the site permits provide that the Commission may modify or amend the site permit if there is good cause to do so.

III. PETITION FOR MODIFICATION OR AMENDMENT OF THE SITE PERMITS

On September 19, 2014, Black Oak Wind, LLC and Getty Wind Company, LLC (Permittee) filed a Petition for Modification or Amendment to Site Permits for the 42 megawatt (MW) Black Oak Wind Farm and the 40 MW Getty Wind Farm in Stearns County, Minnesota.

The Permittee explained that due to certain changes during the course of developing the projects, such as turbine technology and turbine availability, it has identified different turbine models from those currently specified in the site permits. The existing site permits included multiple wind turbine options to afford the Permittee some flexibility in turbine choice, however, in this case did not provide enough flexibility for the new turbine choice. The Permittee has identified Vestas V110 2.0 MW turbines as the optimal wind turbine generator for performance and cost of the projects. The Permittee has requested permit language modifications that address adjustments to the project design, namely a different type of wind turbine model, a different total number of turbines, and a different preliminary turbine layout.

The Permittee has requested language modifications to the respective site permits as follows:

Section 1 – Project Description – Black Oak Wind Farm Site Permit (10-1240)

The up to 42 MW nameplate capacity LWECs authorized to be constructed in this Permit (Black Oak Wind Farm) will be developed and constructed by the Permittee. The Project will consist of up to ~~28 1.5 Megawatt (MW) wind turbine generators, up to 22 1.8 MW wind turbine generators, or up to 13 3.0 MW~~ 21 Vestas V110 2.0 MW wind turbine generators mounted on towers with a height of ~~262 to 328 feet (80 to 100 meters)~~ 262 feet (80 meters) having a combined nominal nameplate capacity of up to 42 MW. The rotor diameter is ~~285 to 367 feet (87 to 112 meters)~~ 361 feet (110 meters). Associated facilities will include wind turbine access roads, communications cables, electrical collector and feeder lines, an operations and maintenance facility, and up to two meteorological towers. Depending upon the turbine model selected, transformers will either be pad mounted or within the nacelle. Turbines are interconnected by communication and underground electrical power collection facilities within the wind farm that will deliver wind-generated power to the Project substation. Power will ultimately be delivered from the Project substation to the grid at the Black Oak Switching Station owned by Xcel Energy. The Permittee will seek local permitting for the operation and maintenance facility and the transmission line delivering the power from the Project Substation to Xcel Energy's Black Oak Substation.

Section 1 – Project Description – Getty Wind Farm Site Permit (11-831)

The up to 40 MW nameplate capacity LWECs Project authorized to be constructed in this permit will be developed and constructed by the Permittee. The Project will consist of up to ~~23 Goldwind 87 1500 1.5 MW wind turbine generators (turbines), up to 21 Repower MM100 1.8 MW turbines, or up to 13 Vestas V112 3.0 MW turbines~~ 20 Vestas V110 2.0 MW turbine generators mounted on towers with a height of 262 feet (80 meters). The Permittee may modify the turbine selection with the Minnesota Public Utilities Commission's (Commission) approval. The rotor diameter is ~~285 to 367 feet (87 to 112 meters)~~ 361 feet (110 meters). Associated facilities include wind turbine access roads, communications cables, electrical collection system, a Project substation with Supervisory Control and Data Acquisition (SCADA) equipment, and two permanent meteorological towers. Turbines are interconnected by communication and overhead and underground 34.5 kV electrical power collection facilities within the wind farm that will deliver wind-generated power to the Project substation. The Permittee will seek local permitting for an Operations and Maintenance (O&M) building, and a 69 kV transmission line connecting the Project Substation with Xcel Energy's Black Oak Switching Station.

The Permittee maintained that the proposed change in the wind turbine generator and turbine layout will not “substantively change the Commission’s findings in its original approval of the site permits or whether the Projects are compatible with environmental preservation, sustainable development, and the efficient use of resources.” The Permittee provided the following with regard to the requested changes:

- The revised turbine layout is located entirely within the project boundaries previously studied for potential human and environmental impacts as part of the permitting process.
- The revised turbine layout will comply with all setback requirements and site layout restrictions identified in the site permits and will not result in any impacts not already considered by the Commission.
- It will not be necessary to submit revised preconstruction compliance filings beyond changes requested by Department of Commerce Energy Environmental Review and Analysis (EERA) as part of its review. Pre-construction surveys, reporting, and administrative compliance obligations set forth in the site permits have already been substantially completed using the Vestas V110 as a model.

IV. SUMMARY OF COMMENTS ON PETITION

Initial comments on Black Oak/Getty’s Petition were accepted between September 23-30, 2014. The Commission received comments from EERA, Department of Natural Resources (DNR), and a number of comments from private citizens.

A. Department of Commerce Energy Environmental Review and Analysis

On September 30, 2014, EERA filed comments on the Black Oak/Getty Petition. EERA’s analysis focused on whether the modifications requested by the Permittee would change the Commission’s determination that the project is compatible with the standards set out in statute and rule.

Based on its review, EERA staff indicated that the use of the Vestas V100 2.0 MW turbines would remain compatible with environmental preservation, sustainable development, and the efficient use of resources; that all turbines are within the permitted project boundaries and meet all setback requirements and site layout restrictions identified in the site permits. EERA recommended that the Commission approve the proposed permit amendments requested by the

Permittee and suggested additional permit language modifications to sections 1, 2.2, 4.9, and 11.5 (See **Attachments 1 and 2**).¹

B. Department of Natural Resources

On September 29, 2014, the DNR filed comments on Black Oak/Getty Petition. The DNR indicated that it had reviewed the revised turbine layout maps for both projects with respect to previous layouts, flight path analyses, species identification, proximity of turbines to conservation lands, acoustic bat data, and use of previously disturbed land uses and continues to rank the estimated risk of bird and bat collision as moderate.

Based on its review, the DNR recommended three turbines that should be relocated if possible:

- Turbine No. 9 of the Black Oak Wind Farm is adjacent to a public water wetland.
- Turbine No. 40 of the Black Oak Wind Farm is located in a documented area of heavier flight path use and is near Hoboken Creek and a possible seasonal wetland.
- Turbine No. 37 of the Getty Wind Farm is in closer proximity to documented flight paths between a Waterfowl Production Area and a public water.

C. Public Comments

The Commission received comments on the Black Oak/Getty Petition from 16 different citizens.² The comments largely indicated either opposition or preference for the projects. The comments received did not specifically address the requested change in turbines, rather the comments discussed the merits of the projects (e.g., compliance documents related to avian protection, proximity to homes, noticing requirements, C-BED status, contracts) that have already been evaluated and addressed as part of the site permitting process which has been completed.

V. STAFF DISCUSSION

Staff has reviewed the documents and comments relevant to Black Oak and Getty's Petition. Staff agrees with the recommendation of EERA that the Commission should approve the proposed permit amendments requested by the Permittee, including the additional permit modifications as proposed by EERA.

¹ Additional language modification relate to consistency in tower height specifications between sections; ownership notification requirements; and updated site layout maps.

² K. Dold, K. Gilmore, A. Jennissen, B. Jennissen (signed by 78 other citizens), D. Jennissen, J. Jennissen, L. Klish, J. Lahr, K. Lahr, J. Marthaler, M. McNamara, C. Reitsma, N. Snavely, M. Staloch, J. Westerman, D. Wiener

Staff notes that the Permittee is not proposing any changes to the site permits beyond the number of turbines, the turbine type, and the final turbine layout. Although the proposed turbine layout has been revised, all the turbines are located within the permitted project boundaries and the project boundaries remains the same. The project's compatibility with the environmental and natural resource features was considered during the permitting process. The site permits include conditions to protect the environment, enhance sustainable development, and promote the efficient use of resources.

Concerning DNR's recommendation regarding the proposed location of three turbines, staff believes the DNR's concerns can properly be addressed during the pre-construction compliance filing review period. Section 5.1 of the permits provides:

"In the event that previously unidentified environmental conditions are discovered during construction that by law or pursuant to conditions outlined in this permit would preclude the use of that site as a turbine site, the Permittee shall have the right to move or relocate a turbine. The Permittee shall notify the Commission of any turbines that are to be relocated before the turbine is constructed on the new site and demonstrate compliance with the setbacks and site layout restrictions required by the permit."

The pre-construction compliance filing review period is intended to inform the micro-siting process with the most up-to-date information available on wildlife and natural resources, and provide further guidance on additional steps that can be taken to avoid, minimize, or mitigate potential impacts to the environment and natural resources, as well as, demonstrate compliance with the setbacks and site layout restrictions required by the site permit.

COMMISSION DECISION ALTERNATIVES

1. Grant the amendments as requested by Black Oak and Getty in its Petition.
2. Grant the amendments as requested by Black Oak and Getty in its Petition incorporating EERA's permit language modifications and revised maps provided in Attachments 1 and 2 of these briefing papers.
3. Deny the amendments as requested by Black Oak and Getty in its Petition.
4. Take some other action deemed appropriate.

Staff Recommendation: 2.

ATTACHMENT 1

Proposed Permit Language Modifications to **Black Oak Wind Permit (10-1240)**

SECTION 1 – PROJECT DESCRIPTION

The up to 42 MW nameplate capacity LWECS authorized to be constructed in this Permit (Black Oak Wind Farm) will be developed and constructed by the Permittee. The Project will consist of up to ~~28 1.5 Megawatt (MW) wind turbine generators, up to 22 1.8 MW wind turbine generators, or up to 13 3.0 MW~~ 21 Vestas V110 2.0 MW wind turbine generators mounted on towers with a height of ~~262 to 328 feet (80 to 100 meters)~~ towers 262 feet (80 meters) having a combined nominal nameplate capacity of up to 42 MW. The rotor diameter is ~~285 to 367 feet (87 to 112 meters)~~ 361 feet (110 meters). Associated facilities will include wind turbine access roads, communications cables, electrical collector and feeder lines, an operations and maintenance facility, and up to two meteorological towers. Depending upon the turbine model selected, transformers will either be pad mounted or within the nacelle. Turbines are interconnected by communication and underground electrical power collection facilities within the wind farm that will deliver wind-generated power to the Project substation. Power will ultimately be delivered from the Project substation to the grid at the Black Oak Switching Station owned by Xcel Energy. The Permittee will seek local permitting for the operation and maintenance facility and the transmission line delivering the power from the Project Substation to Xcel Energy's Black Oak Substation.

SECTION 2.2 – TURBINE LAYOUT

Three preliminary wind turbine and associated facility layouts are shown on the maps at Attachments 1a, 1b, and 1c attached to this permit. ~~Each~~ The preliminary layout represents the approximate location of wind turbines and associated facilities within the Project boundary and identifies a layout that minimizes the overall potential human and environmental impacts of the Project, which were evaluated in the permitting process. The final layout depicting the location of each wind turbine and associated facility shall be located within the Project boundary. The Project boundary serves to provide the Permittee with the flexibility to make minor adjustments to the preliminary layout to accommodate landowner requests, unforeseen conditions encountered during the detailed engineering and design process, and federal and state agency requirements. Any modification of the location of a wind turbine and associated facility depicted in the preliminary layout shall be done in such a manner as to have comparable overall human and environmental impacts and shall be specifically identified in the site plan pursuant to Section 5.1. The Permittee shall submit the final site layout in the site plan pursuant to Section 5.1.

ATTACHMENT 1

Proposed Permit Language Modifications to **Black Oak Wind Permit (10-1240)**

SECTION 4.9 – WIND TURBINE TOWERS

Structures for wind turbines shall be self-supporting tubular towers. The towers may be up to ~~100 meters (328 feet)~~ 262 feet (80 meters) above grade measured at the hub.

SECTION 11.5 – TRANSFER OF PERMIT

The Permittee may not transfer this Permit without the approval of the Commission. If the Permittee desires to transfer this Permit, the holder shall advise the Commission in writing of such desire. The Permittee shall provide the Commission with such information about the transfer as the Commission requires to reach a decision. The Commission may impose additional conditions on any new Permittee as part of the approval of the transfer.

Within 20 days after the date of the notice provided in Section 8.4, the Permittee shall file a notice describing its ownership structure, identifying, as applicable:

- a. The owner(s) of the financial and governance interests of the Permittee;
- b. The owner(s) of the majority financial and governance interests of the Permittee's owners; and
- c. The Permittee's ultimate parent entity (meaning the entity which is not controlled by any other entity).

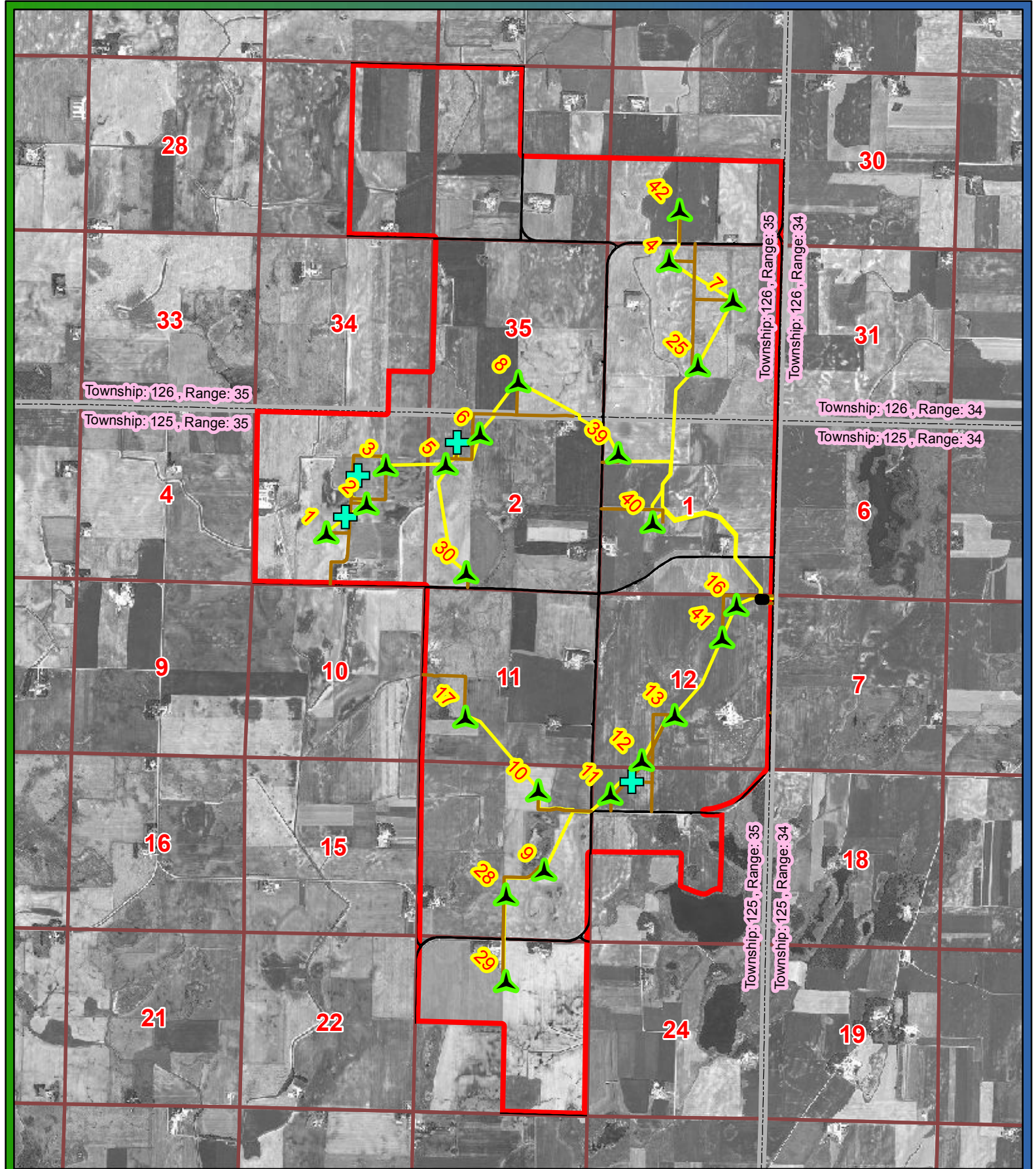
The Permittee shall notify the Commission of:








- a. A change in owner(s) of the majority* financial or governance interests in the Permittee;
- b. A change in owner(s) of the majority* interest financial or governance interests of the Permittee's owners; or
- c. A sale which changes the parent entity of the Permittee.

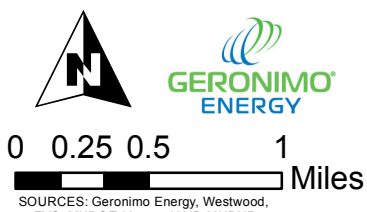
* When there are only co-equal 50/50 percent interests, any change shall be considered a change in majority interest.

The Permittee shall notify the Commission of:

- a. The sale of a parent entity or a majority interest in the Permittee;
- b. The sale of a majority interest of the Permittee's owners or majority interest of the owners; or
- c. A sale which changes the entity with ultimate control over the Permittee.



-  Turbine
-  Met Tower
-  Project Substation
-  Access Road
-  Electric Collection System
-  Public Roads
-  Black Oak Project Boundary



Black Oak Wind Project Layout

BLACK OAK WIND FARM

Stearns County, MN

ATTACHMENT 2

Proposed Permit Language Modifications to **Getty Wind Permit (11-831)**

SECTION 1 – PROJECT DESCRIPTION

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SECTION 2.2 – TURBINE LAYOUT

~~A preliminary~~ Preliminary wind turbine and associated facility layouts ~~is~~ are shown on the map at ~~Attachments 1a-e attached to this permit~~. The preliminary layouts represents the approximate location of wind turbines ~~of the types and sizes under consideration~~ and associated facilities within the Project boundary and identify a layouts that minimizes the overall potential human and environmental impacts of the Project, which were evaluated in the permitting process. The final layout depicting the location of each wind turbine and associated facility shall be located within the Project boundary. The Project boundary serves to provide the Permittee with the flexibility to make minor adjustments to the preliminary layout to accommodate landowner requests, unforeseen conditions encountered during the detailed engineering and design process, and federal and state agency requirements. Any modification of the location of a wind turbine and associated facility to a preliminary layout shall be done in such a manner to have comparable overall human and environmental impacts and shall be specifically identified in the site plan pursuant to Section 5.1. The Permittee shall submit the final site layout in the site plan pursuant to Section 5.1.

ATTACHMENT 2

Proposed Permit Language Modifications to **Getty Wind Permit (11-831)**

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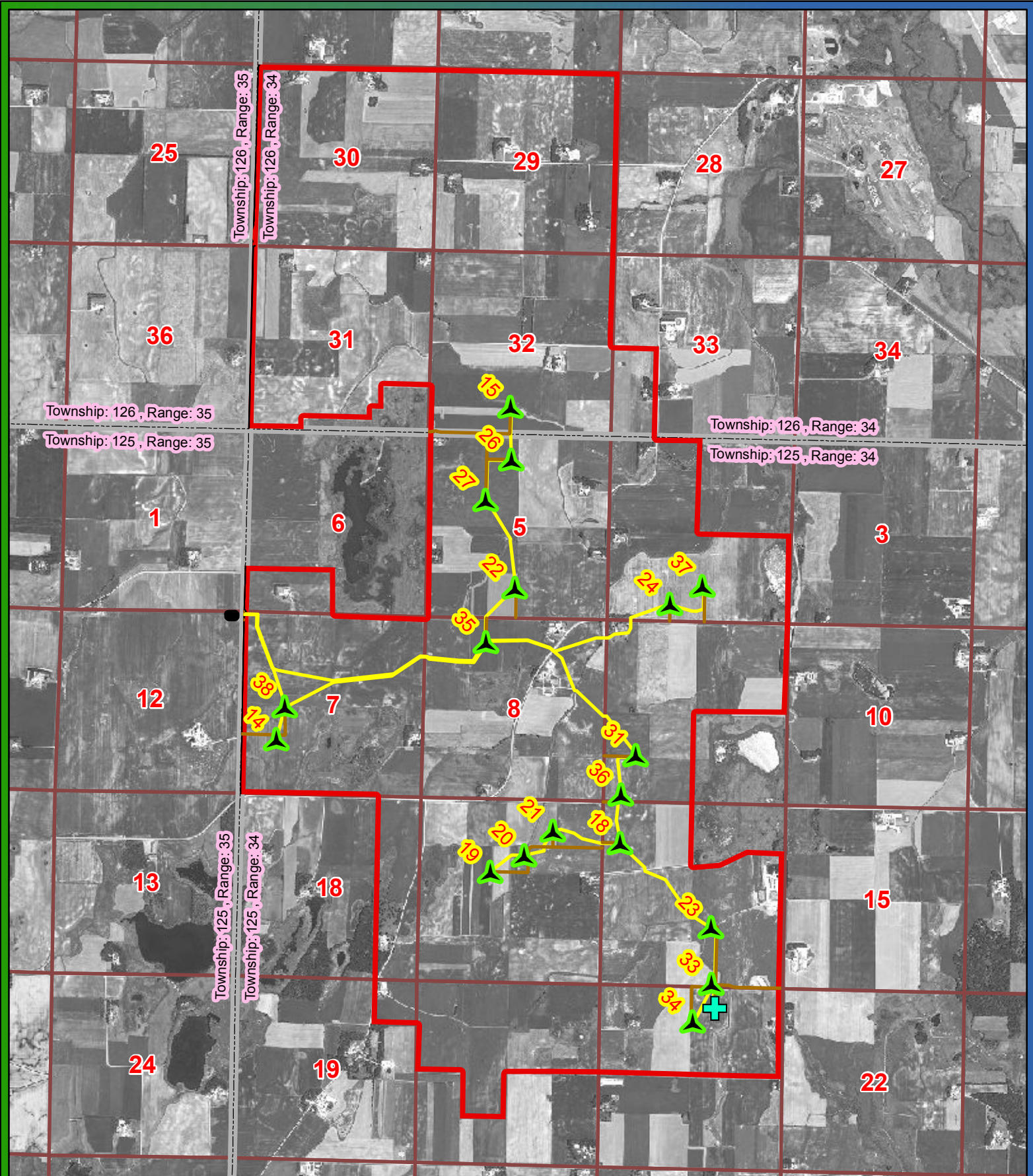
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The Permittee shall notify the Commission of:

- a. The sale of a parent entity or a majority interest in the Permittee;
- b. The sale of a majority interest of the Permittee's owners or majority interest of the owners; or
- c. A sale which changes the entity with ultimate control over the Permittee.



-  Turbine
-  Met Tower
-  Project Substation
-  Access Road
-  Electric Collection System
-  Public Roads
-  Getty Project Boundary



0 0.25 0.5 1 Miles

SOURCES: Geronimo Energy, Westwood, EVS, MNDOT, Ventyx, NAIP, MNDNR



Getty Wind Project Layout

