

# TURBINE AND TRANSMISSION NEIGHBORS?

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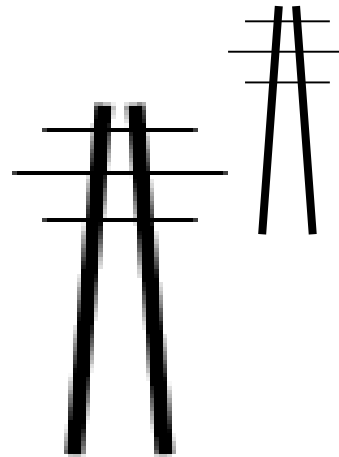
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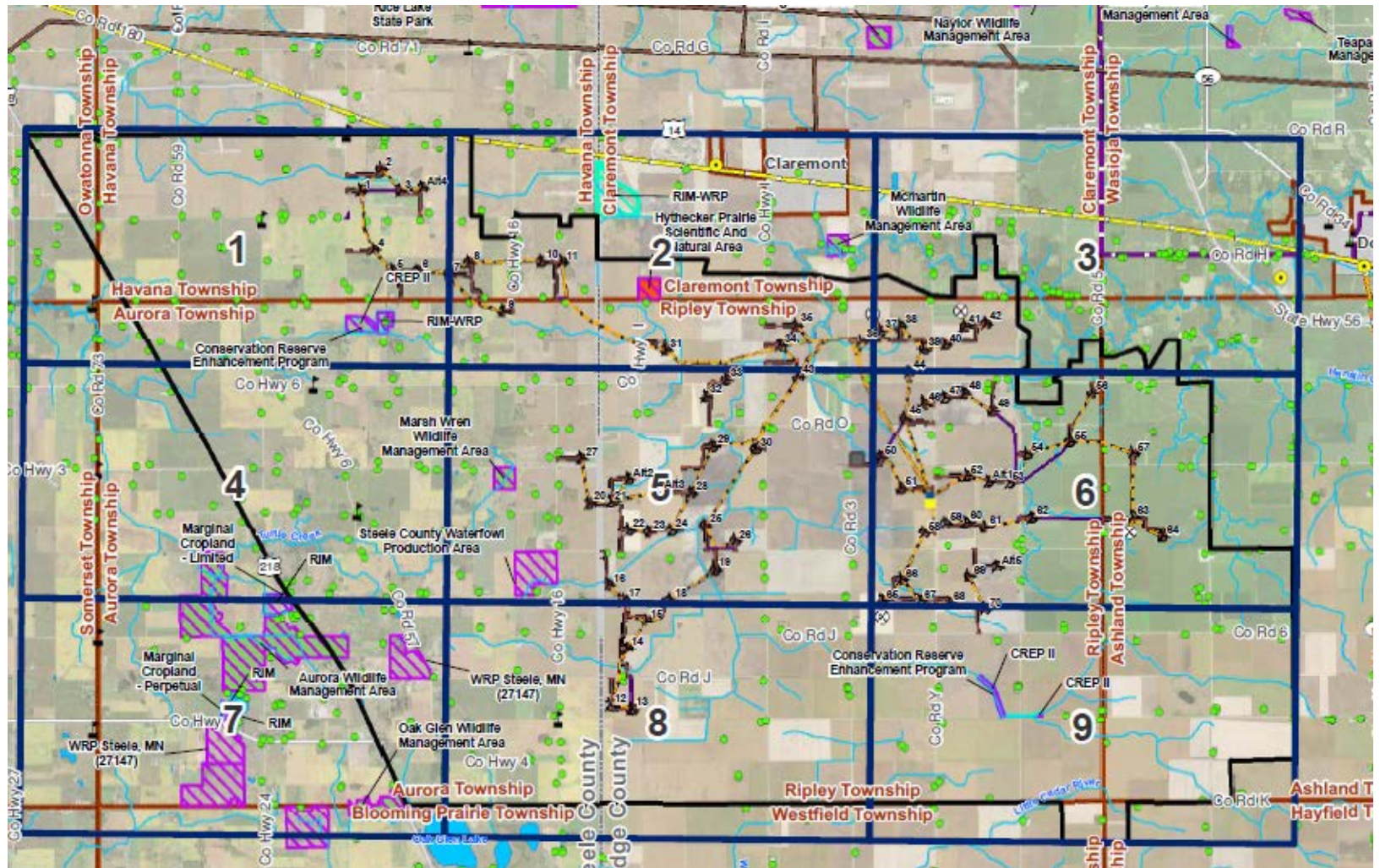
# You have a voice in this!

Project applications have recently been filed at the Public Utilities Commission – **THREE DOCKETS AT ONCE**, and the PUC has requested comments on completeness:

- **Certificate of Need** – Wind project and transmission line  
PUC Docket: IP-6981/CN-17-306
- **Wind Site Permit** – Wind project, collector lines, roads  
PUC Docket: IP-6981/CN-17-307
- **Transmission Line Route Permit** – 23 mile 345 kV line  
PUC Docket: IP-6981/CN-17-308

**THREE DOCKETS IS A LOT TO TRACK AND UNDERSTAND**

# What's proposed? Wind Project



# What's proposed? Wind Project

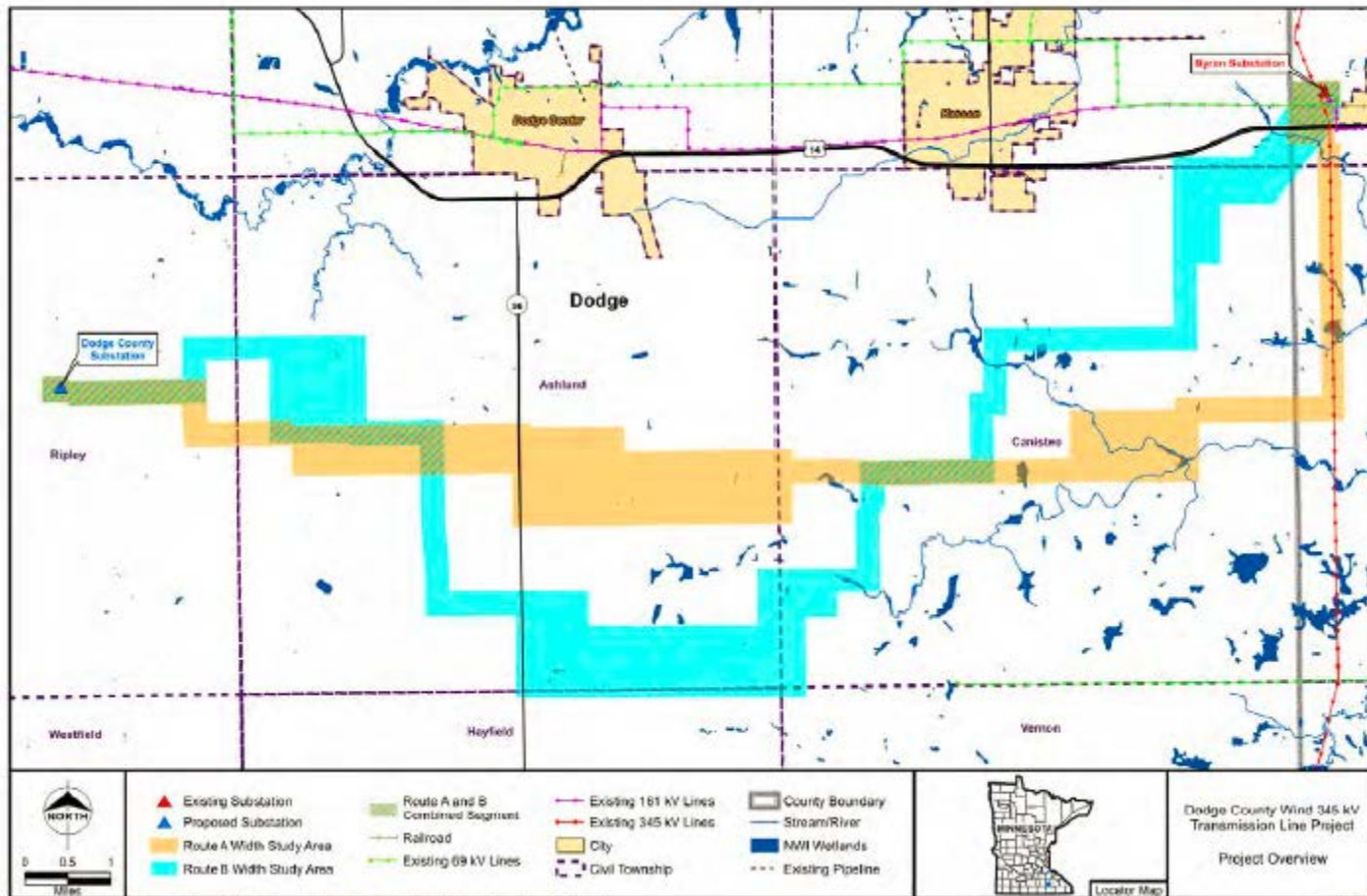
The 170 MW wind project is proposed by Dodge County Wind, a subsidiary of NextEra Energy Resources, LLC.

The project consists of:

- Wind Turbines – 62 2.5 MW & 8 1.715 MW = ~170 MW
- 34.5kV Underground Collector System (distribution in reverse)
- Substation
- Gravel Access Roads to the Turbines
- Operations & Maintenance Building
- Meteorological Tower

# What's proposed? Transmission Project

Figure 1: Project Overview Map



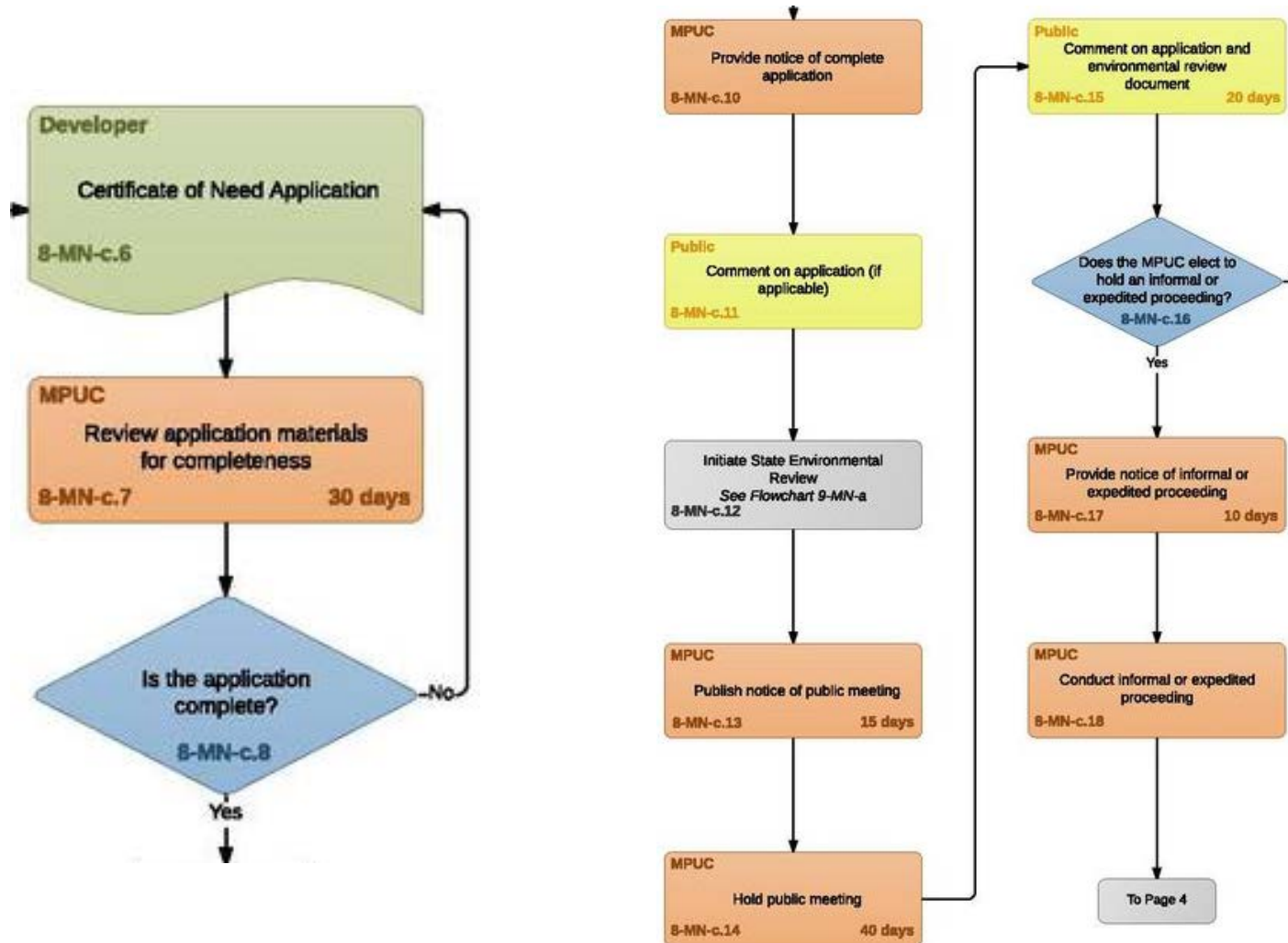
# What's proposed? Transmission Project

Transmission project is 23 mile long 345kV transmission line, from new “Dodge Center” substation to the Byron substation. More detailed maps in Application Appendix.

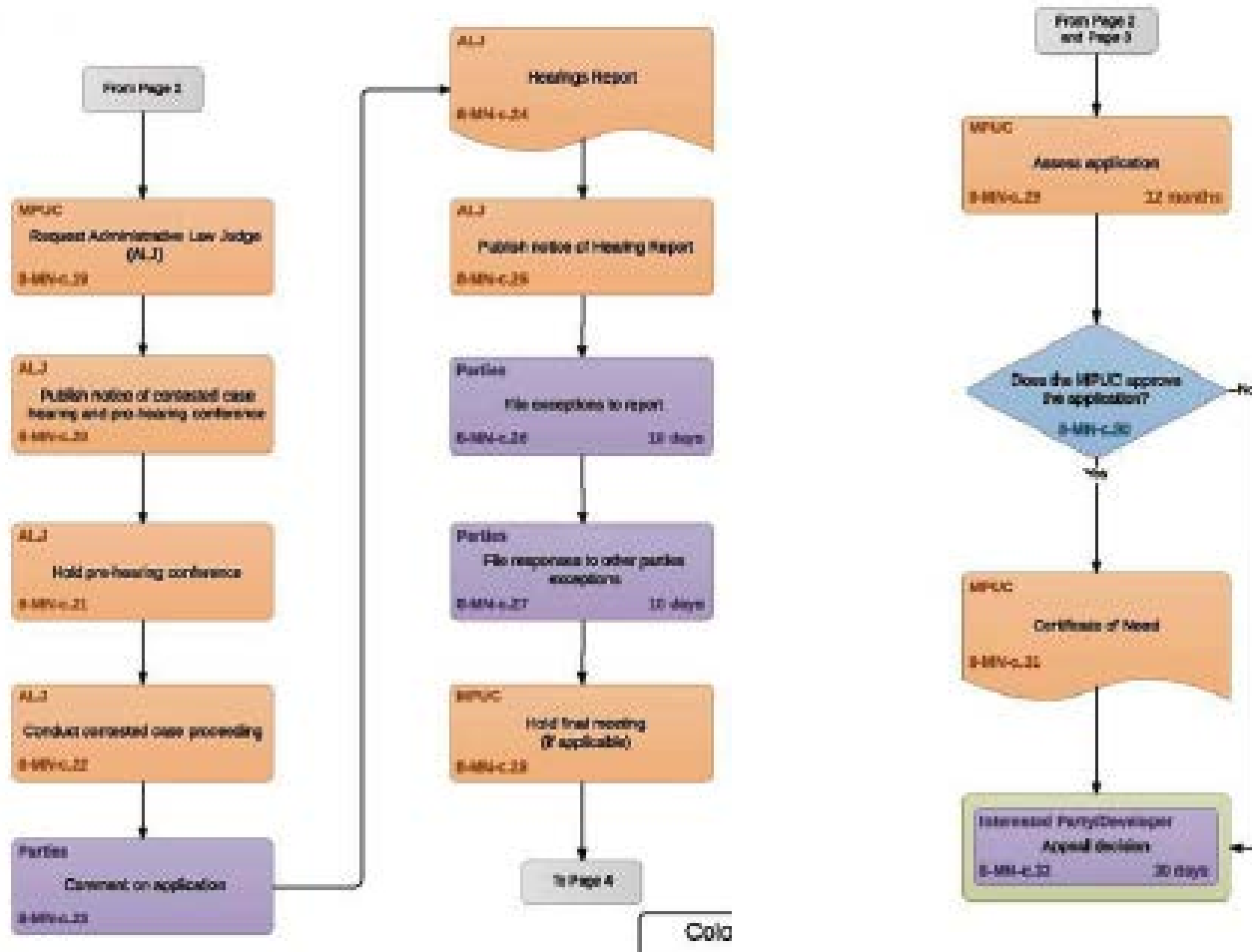
- 345kV is a high voltage and high capacity line – TOO LARGE for a 170 MW wind project.
- Bundled conductors provide for even higher capacity.
- Proposes 345kV radial line – not electrically stable!
- Transmission is designed as part of regional buildout:

*“Additionally, injecting into MISO’s 345 kV transmission system **allows the generation tie line to evolve in the future into part of the regional backbone transmission system**, which will serve to preserve and enhance reliability, improve environmental performance, increase transmission resiliency, and minimize costs.” CoN App, p.11-12*

# Process for Certificate of Need (1)



# Process for Certificate of Need (2)





# Wind & Transmission – Is it needed?

## Issue in Certificate of Need docket – is it needed?

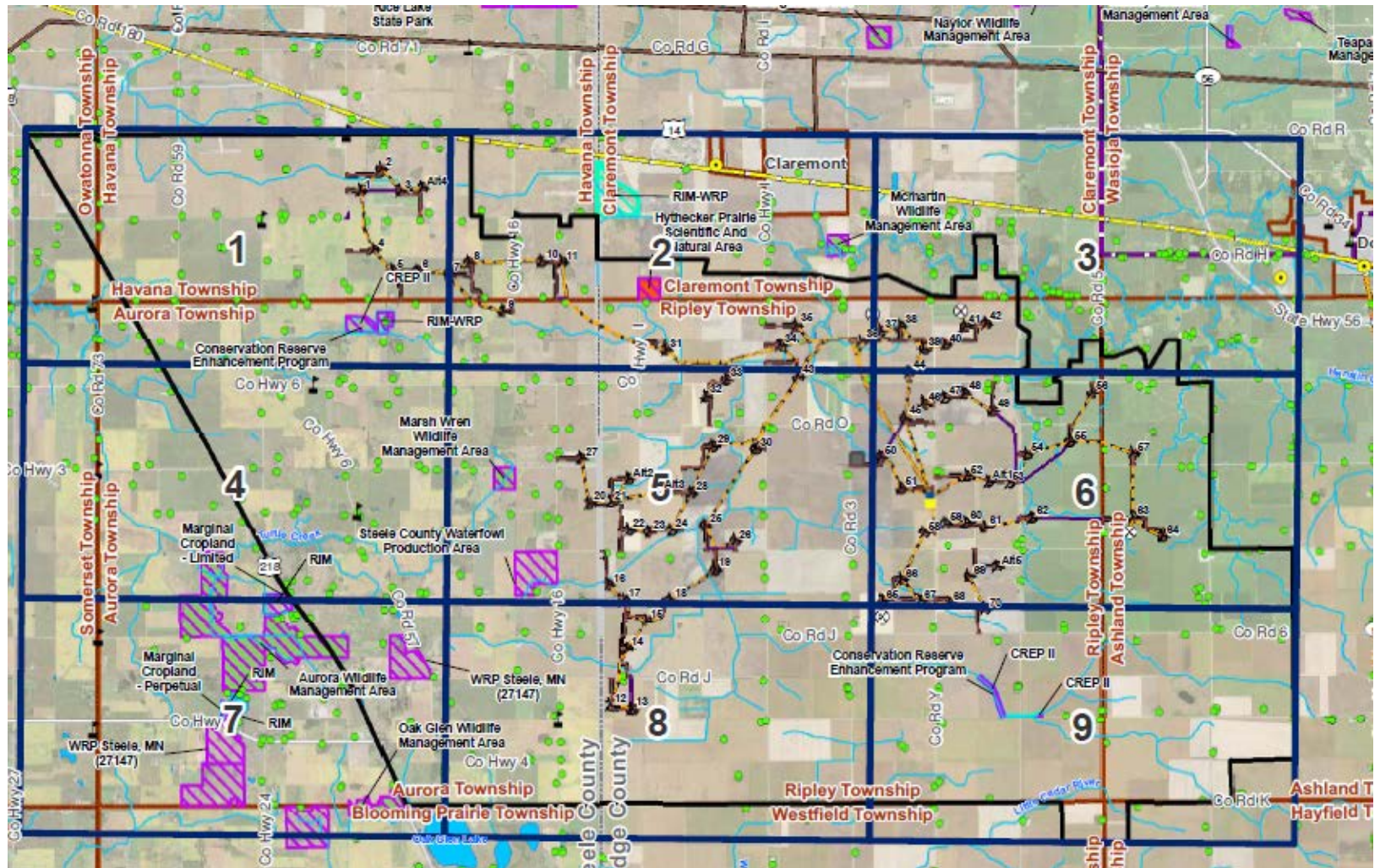
### Wind:

- Project is admittedly more than is needed for MMPA to meet its renewable goals. So why more?
- Could MMPA meet goals through conservation? Solar?

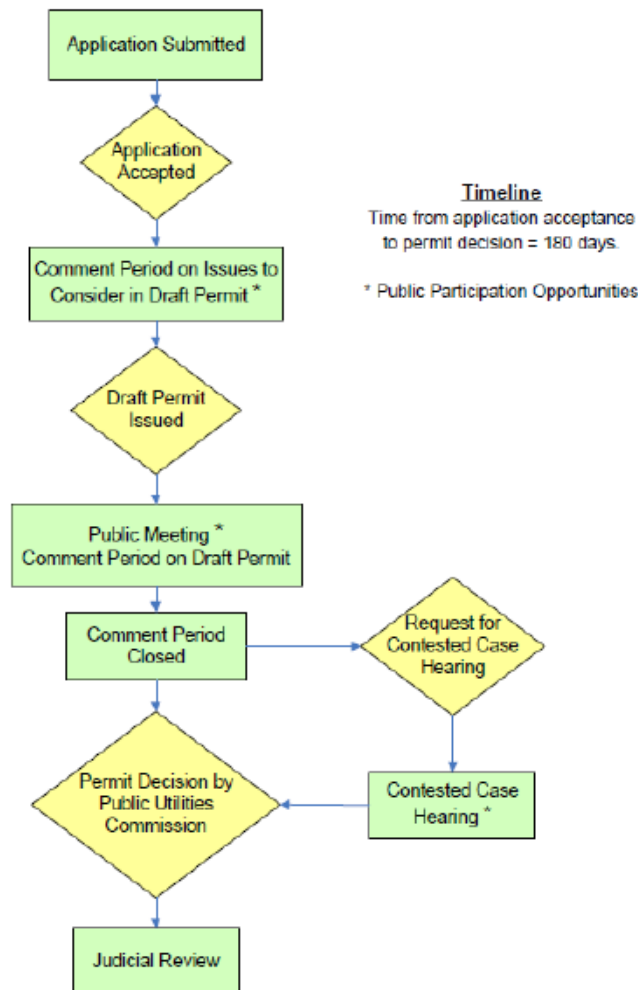
### Transmission:

- A 345 kV line is larger than is needed to interconnect wind project to the grid.
- How is cost allocated? Is cost of oversized xmsn added into Power Purchase Agreement, and MMPA takes a hit?

# Wind Site Permit - IP-6981/CN-17-307



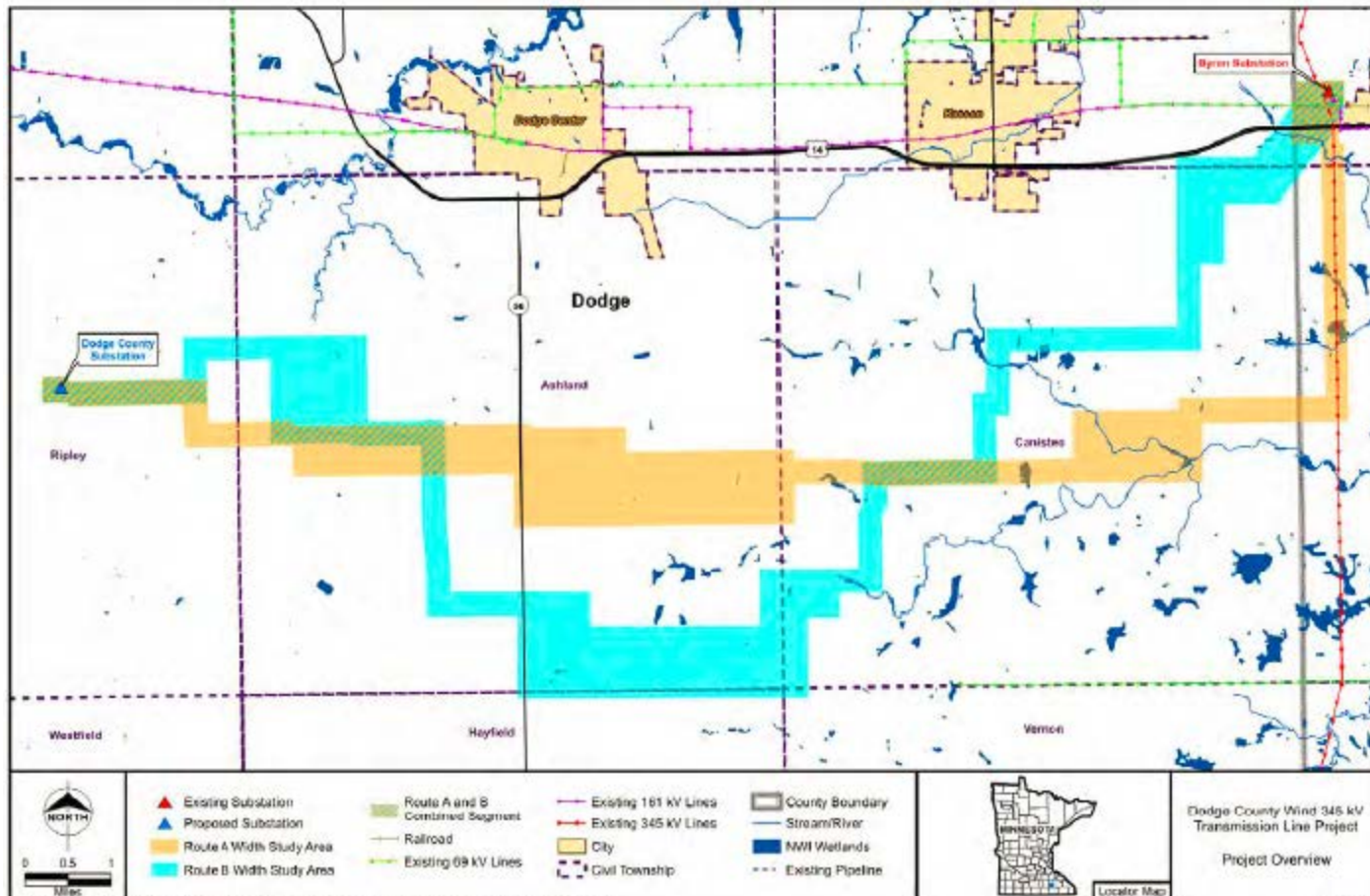
# Wind Site Permit - IP-6981/CN-17-307



Missing public participation opportunities and wrong order:

- Completeness Comments & Request for Contested Case (need to ask at outset, NOW!)
- Need to request TASK FORCE
- Intervention – grant of full party status – seat at table
- Contested case begins earlier than on flow chart.
- If referred to ALJ, then after ALJ's Recommendation, 20 days to file Exceptions
- After Permit Decision, Motion for Reconsideration may be filed by any affected party.
- Goes back to PUC to consider, and can be remanded to ALJ, permit revised, or not taken up.

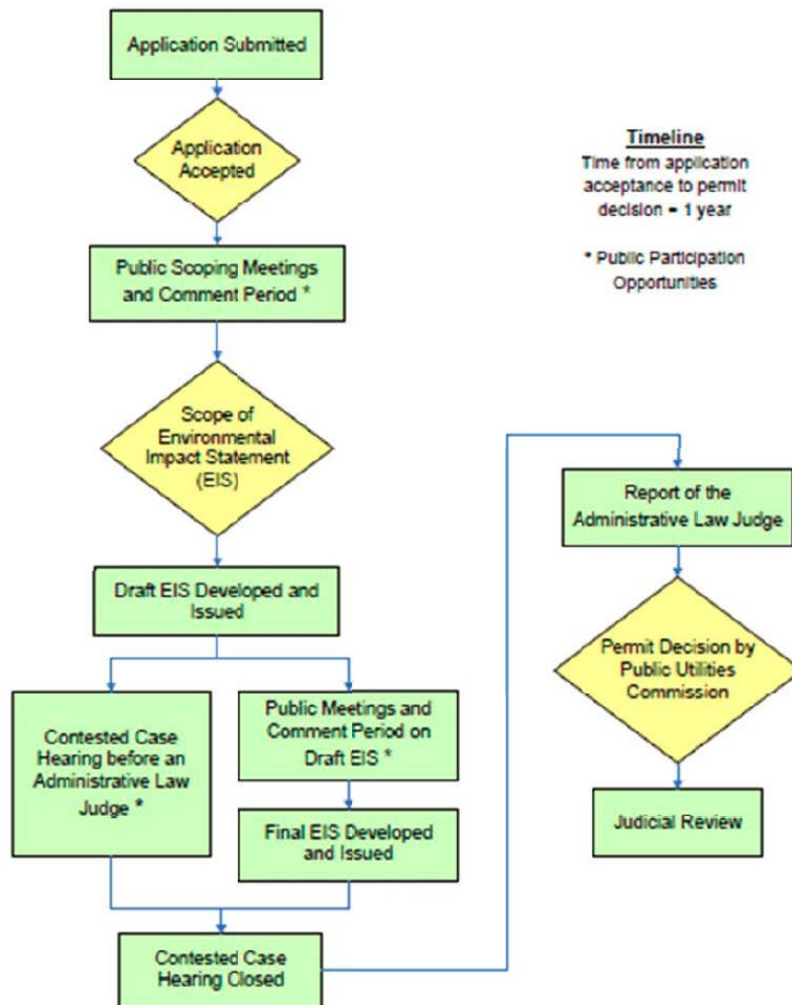
# Xmsn Route Permit - IP-6981/CN-17-308



Source: National Hydrography Dataset, Minnesota DNR, Minnesota Geo GIS, Minnesota DNR, ABB Volcanic Scar, Stone & Mackinnon

Jan 21, 2018

# Xmsn Route Permit - IP-6981/CN-17-308



More missing public participation opportunities and wrong order:

- Completeness Comments (contested case presumed)
- Intervention – grant of full party status – seat at table
- Contested case begins earlier than on flow chart.
- TASK FORCE!!!
- ALJ's Recommendation, 20 days to file Exceptions
- After Permit Decision, Motion for Reconsideration may be filed by any affected party.
- Goes back to PUC to consider.

# Where are we now? The beginning!

**You'll need to look at applications to know what's proposed:**

- **To view PUC dockets for these projects, go to <https://mn.gov/puc/> and then to “Documents” and “eDockets”**
- **Then search for the three dockets – “17” in 1st field, and 306, 307 or 308 in 2<sup>nd</sup> field.**
  - Certificate of Need – 17-306
  - Wind Siting – 17 -307
  - Transmission Route – 17-308

# Comments need to be focused

**PUC has identified areas for Comments. To have an impact, Comments must be focused and specific.**

- Does the Certificate of Need, LWECS site permit and HVTL route permit contain the information required by rules?
- Should CoN and LWECS be referred for contested case (presumed for HVTL)?
- Are there material issues of fact for contested case?
- Should all THREE dockets be processed together?
- If CoN and LWECS and/or HVTL lumped together, should CoN have Environmental Impact Statement, not a “Report.”
- Should Task Force be appointed for HVTL and/or LWECS?

# Comments need to be focused

**Individual thoughtful comments matter. Don't use form cards or letters – they're just brushed aside.**

- When you write comments, be concise, don't ramble.
- If an issue grabs you, do some research and briefly refer to document in your comment – attach a copy (electronic filing makes it easy).
- Credibility matters – Dig down to the primary source, i.e., scientific study, rather than an inflammatory website or article (credible articles will link to the source, and you should attach source to comment).
- Explain your concerns and willingness to participate, i.e., “I want to be part of a Task Force.” (What does a Task Force do?)
- Look to big picture, and ID what's missing in their applications that should be considered and/or contested.
- Only way to consider full impacts of project is with Environmental Impact Statement – provide examples of subjects to examine.



# Wind Projects – issues to consider

Noise: Noise is real -- wind projects do exceed standards  
Minn. R. 7030.0040 governs noise:

Noise Area Classification	Daytime		Nighttime	
	L <sub>50</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>10</sub>
1	60	65	50	55
2	65	70	65	70
3	75	80	75	80

Department of Commerce is the enforcer of PUC permits.

Once a project is up and running, it's pretty tough to "mitigate" noise – can't just pick up a turbine and move it.

- Permit violations must be documented
- PUC's complaint process is flawed and hard to navigate
- First landowner buyouts approved by PUC May 17, closed June 14

# Wind Projects – issues to consider

Shadow flicker is real – siting must take into consideration, BUT there are no formal standards.

- Applications show predictive flicker modeling
- Permits limit shadow flicker – typically to 30 hrs/year
- Landowners must file complaints with project owner.
  - Often people are not aware of Complaint process
- Again, once a project is up and running, it's pretty tough to “mitigate” – can't just pick up a turbine and move it.
- Project owners issue blinds to residents as “mitigation” and Freeborn Wind developer suggested “trip to Florida!”

# Wind Projects – issues to consider

Property values and marketability could be affected by wind and transmission.

- Wind developer expert witnesses base their testimony on studies.
- Homes sold in cited studies are much further away than the distances proposed for project under review.
- Comparable homes used aren't comparable – small sample, very few homes near wind projects are sold.
- If home is on market, **DISCLOSURE OF POTENTIAL PROJECT IS REQUIRED**. What does that do for location, location, location, and curb appeal?

# Issues to consider

Impacts on wildlife and environment:

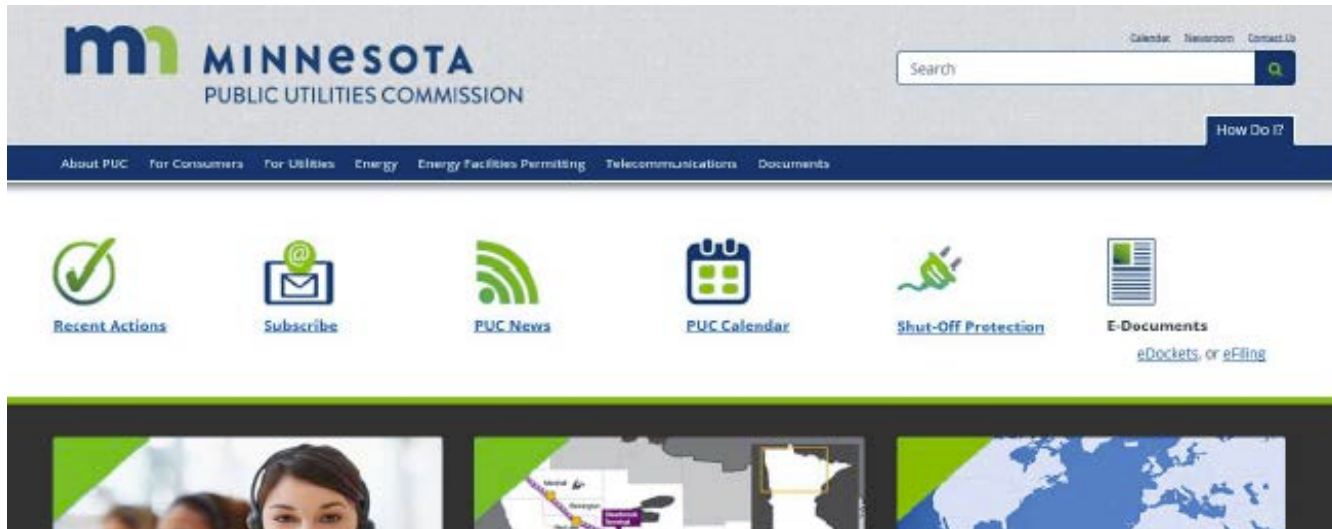
- Protected wildlife at risk – eagles and bats particularly at risk of turbine collision.
- 3 or 4 of the Decorah eagles killed by transmission.
- Wetlands draw wildlife – are wetlands nearby?
- Potential water table impacts – construction and buried concrete foundations.
- Wind and transmission -- viewshed impacts in daytime are visible at great distance.
- Red flashing lights at night across horizon.

# Issues to consider

Impacts on farming and economics of community

- Loss of prime agricultural land should be limited.
- Production loss due to farming around turbines and roads.
- Drain tile damage – protections must be in permit.
- Approaches and landing at nearby airports could be affected.
- Aerial spraying and seeding in wind project isn't possible.
- Roads must be fortified and corners expanded for equipment and turbine delivery – county and township must secure road agreements with protections, including route limitations, hours of use, restoration...
- Does the community consent to project as neighbors?

For more information - [www.mn.gov/puc](http://www.mn.gov/puc)



Click  
eDockets  
here



Scroll down to this:

The image shows a search form for eDockets. It has two buttons at the top: 'Search' and 'Clear'. Below them are two input fields: 'Year' with a dropdown menu showing '-Select-' and 'Number' with a text input field. To the right of these fields is the text 'Docket Lookup Examples: 03-101, 04-020.1'. Below the 'Year' field is another dropdown menu for 'Document Type' with '-Select-' selected.

- **Certificate of Need – 17-306**
- **Wind Site Permit –17-307**
- **Transmission Line Route Permit – 17-308**

For more information - [www.mn.gov/puc](http://www.mn.gov/puc)

This is what a docket looks like – click left column to view:

Document ID	Class	Docket #	Subscription	Docket Type	On Behalf Of	Document Type	Received Date
<a href="#">2018-14441-01</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	PUC	NOTICE OF COMMENT PERIOD--NOTICE OF COMMENT PERIOD ON APPLICATION COMPLETENESS	07/13/2018
<a href="#">2018-14441-02</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	PUC	NOTICE OF COMMENT PERIOD--CERTIFICATE OF SERVICE AND SERVICE LISTS	07/13/2018
<a href="#">2018-14441-03</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--SERVICE LETTER AND CERTIFICATE OF SERVICE	08/29/2018
<a href="#">2018-14441-04</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--DODGE COUNTY WIND APPLICATION FOR LWCCS SITE PERMIT	08/29/2018
<a href="#">2018-14441-05</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX A TO SITE PERMIT	08/29/2018
<a href="#">2018-14441-06</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX B TO SITE PERMIT	08/29/2018
<a href="#">2018-14441-07</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX C TO SITE PERMIT	08/29/2018
<a href="#">2018-14441-08</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX D TO SITE PERMIT	08/29/2018
<a href="#">2018-14441-09</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX E TO SITE PERMIT	08/29/2018
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<a href="#">2018-14441-11</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX G TO SITE PERMIT	08/29/2018
<a href="#">2018-14441-12</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX H TO SITE PERMIT	08/29/2018
<a href="#">2018-14441-13</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX I OF SITE PERMIT 1 OF 4	08/29/2018
<a href="#">2018-14441-14</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX I OF SITE PERMIT 2 OF 4	08/29/2018
<a href="#">2018-14441-15</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX I OF SITE PERMIT 3 OF 4	08/29/2018
<a href="#">2018-14441-16</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX I OF SITE PERMIT 4 OF 4	08/29/2018
<a href="#">2018-14441-17</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--APPENDIX J OF SITE PERMIT	08/29/2018
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<a href="#">2018-14441-19</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--MAP 1 TO SITE PERMIT	08/29/2018
<a href="#">2018-14441-20</a>	PUBLIC	17-307	<input type="checkbox"/>	WS	DODGE COUNTY WIND, LLC	INITIAL FILINGS--MAP 2 TO SITE PERMIT	08/29/2018

For more information – Fire away!

**Q & A!!!**