

TURBINE AND TRANSMISSION NEIGHBORS?

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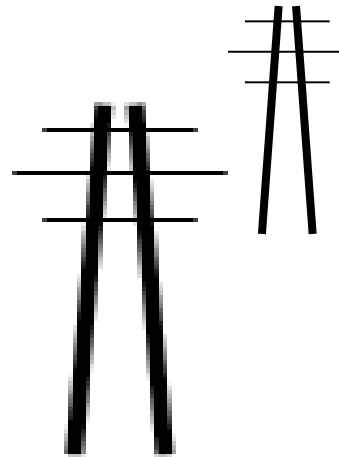
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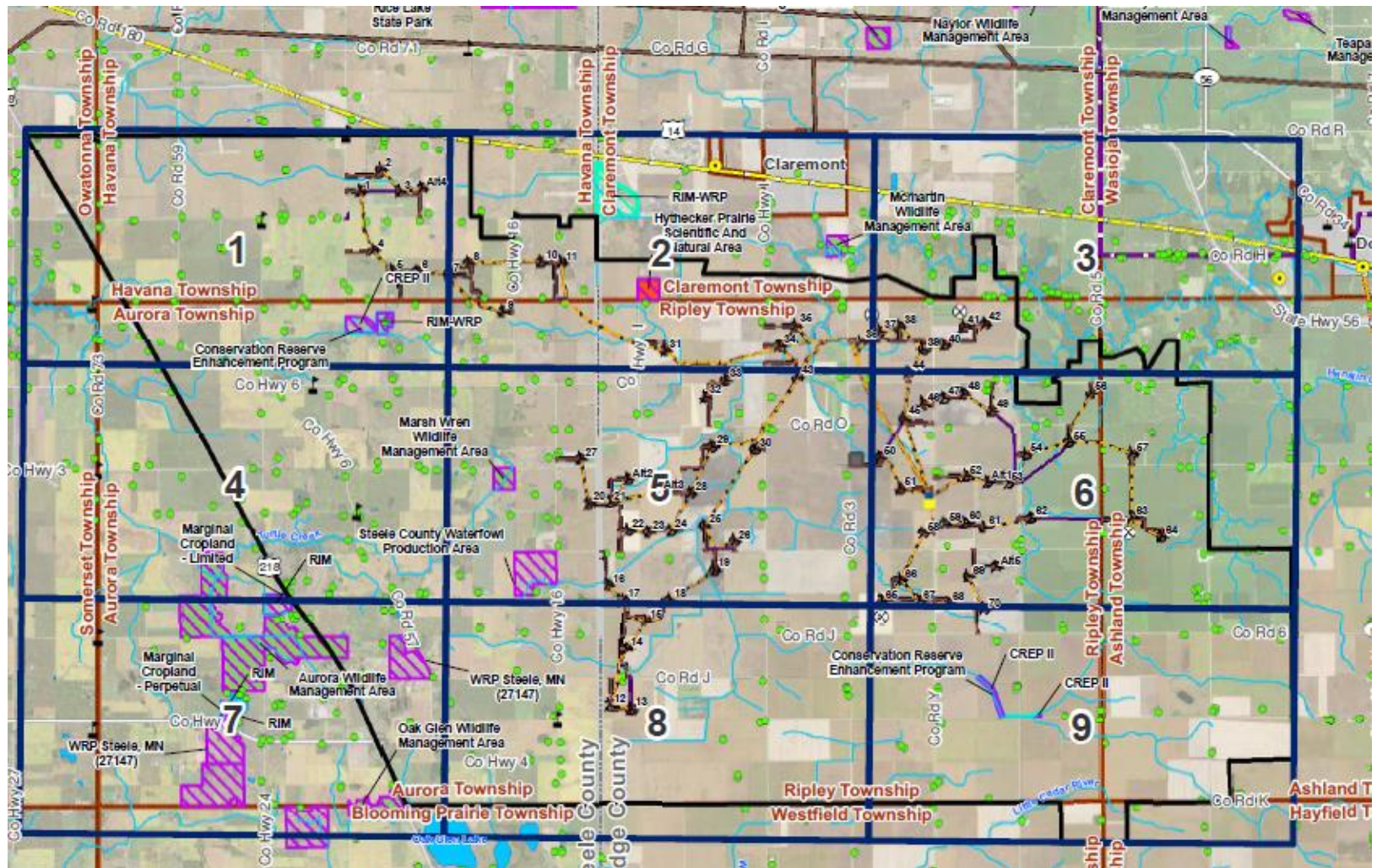
You have a voice in this!

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

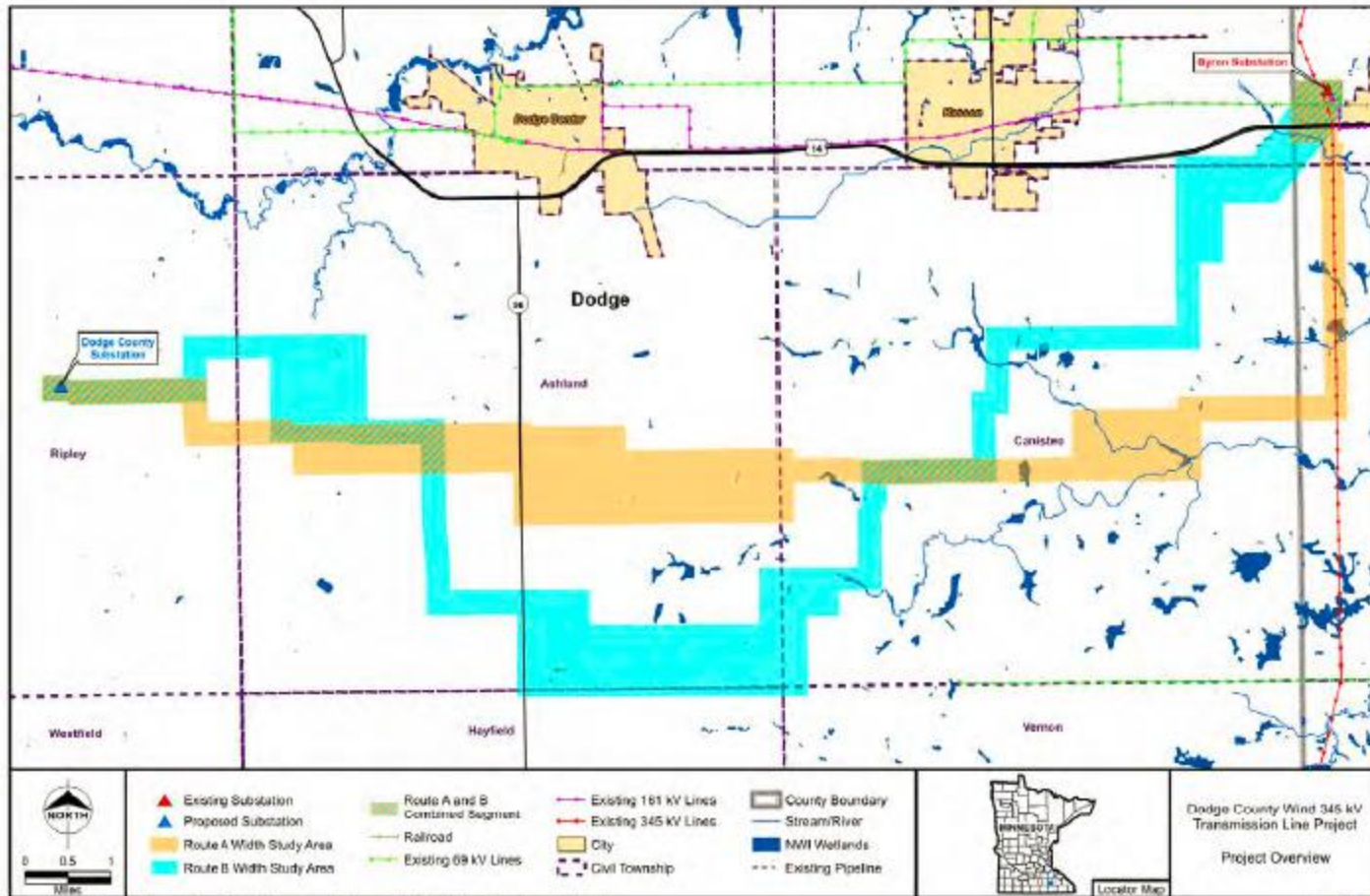
The 170 MW wind project is proposed by Dodge County Wind, a subsidiary of NextEra Energy Resources, LLC.

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



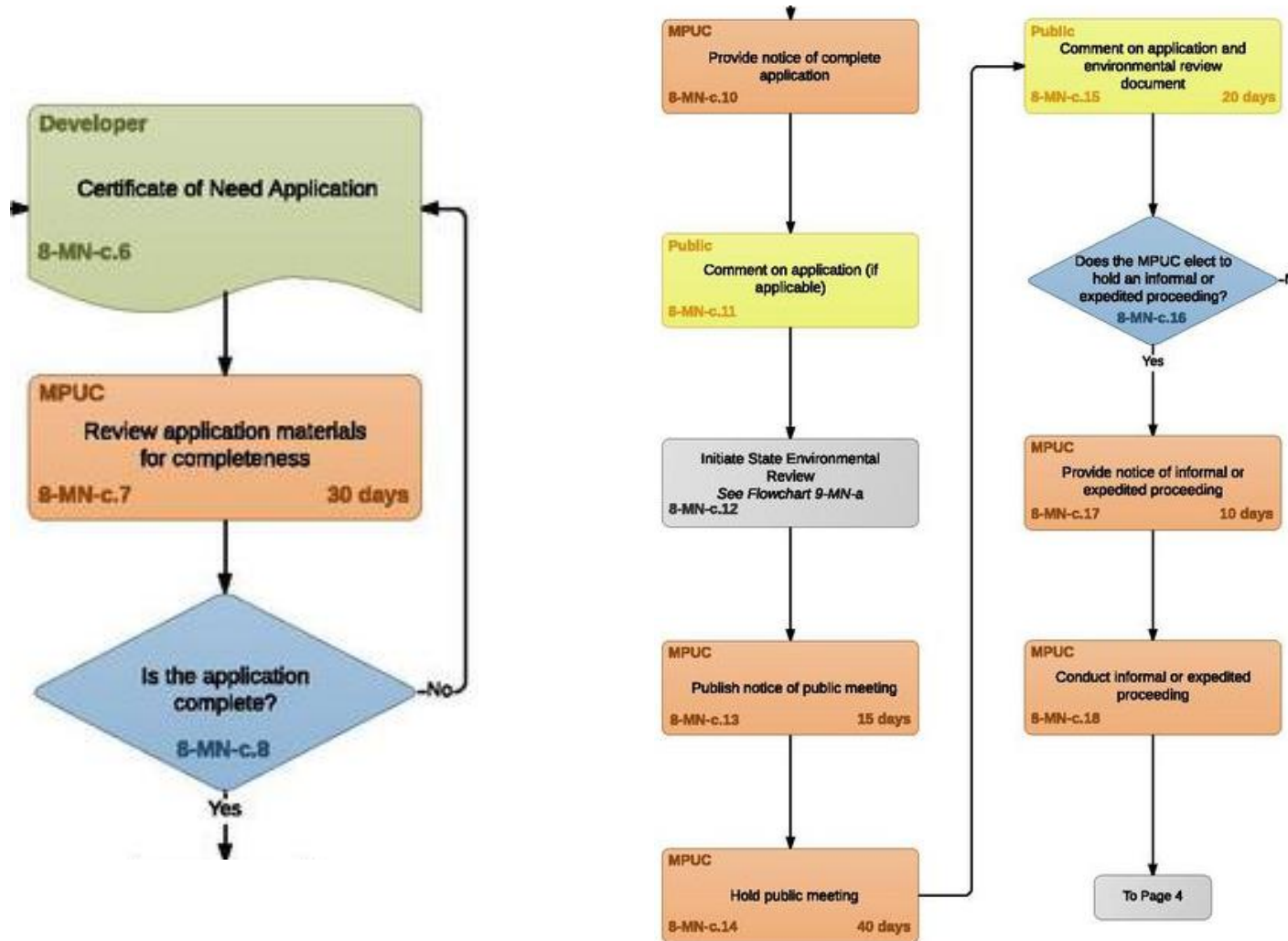
What's proposed? Transmission Project

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

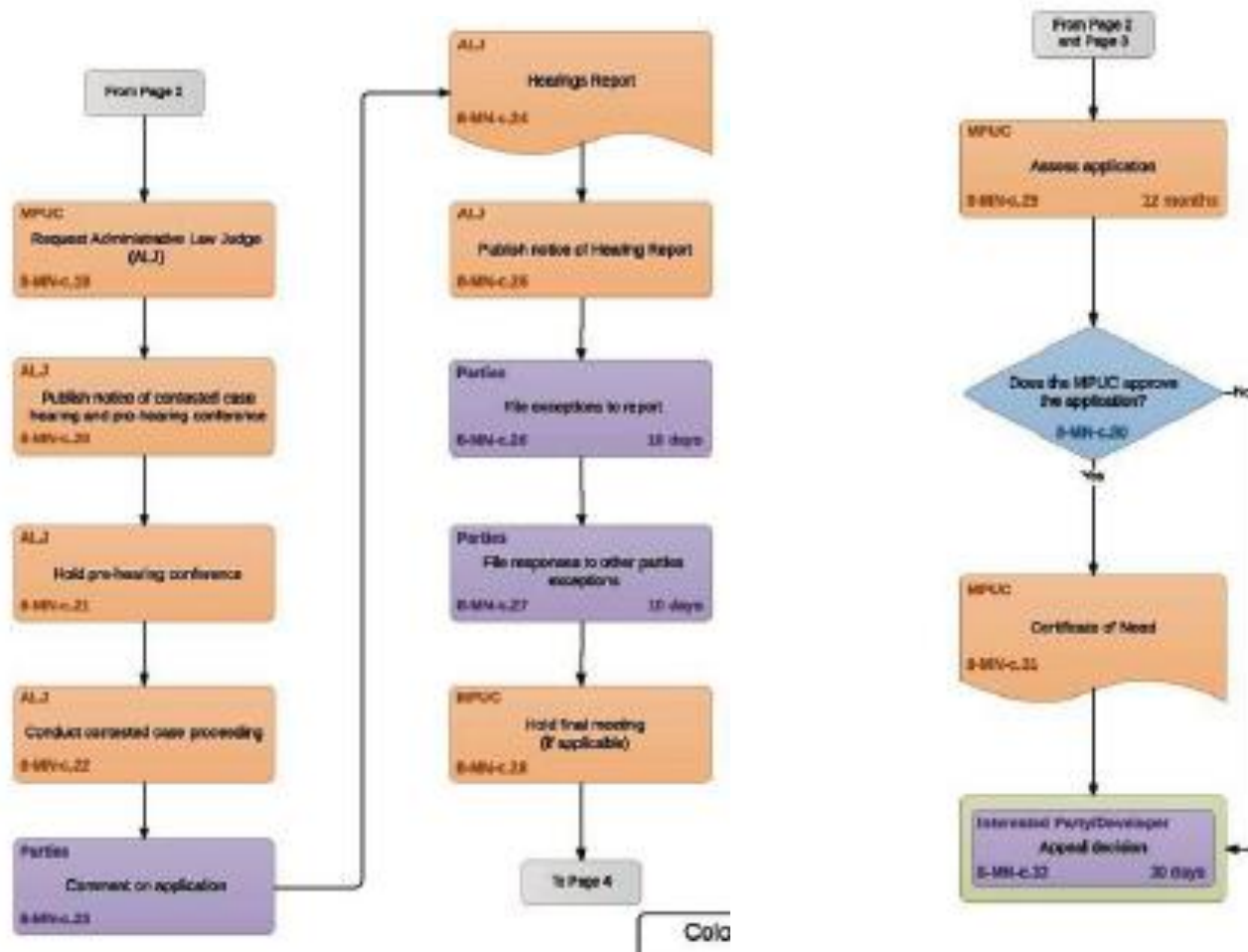
- 345kV is a high voltage and high capacity line – TOO LARGE for a 170 MW wind project.
- Bundled conductors provide for even higher capacity.
- Proposes 345kV radial line – not electrically stable!
- Transmission is designed as part of regional buildout:

*“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?

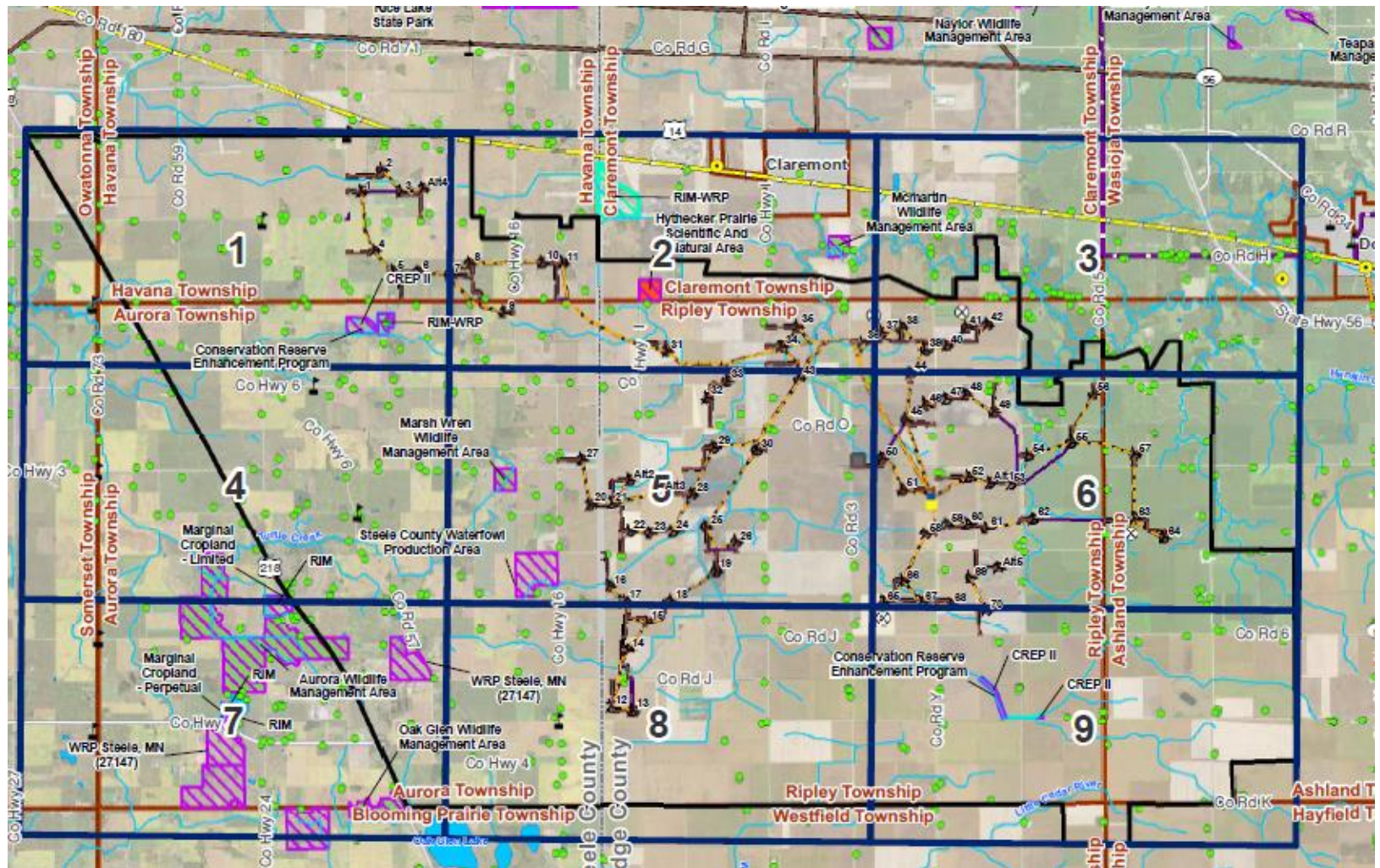
Wind:

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

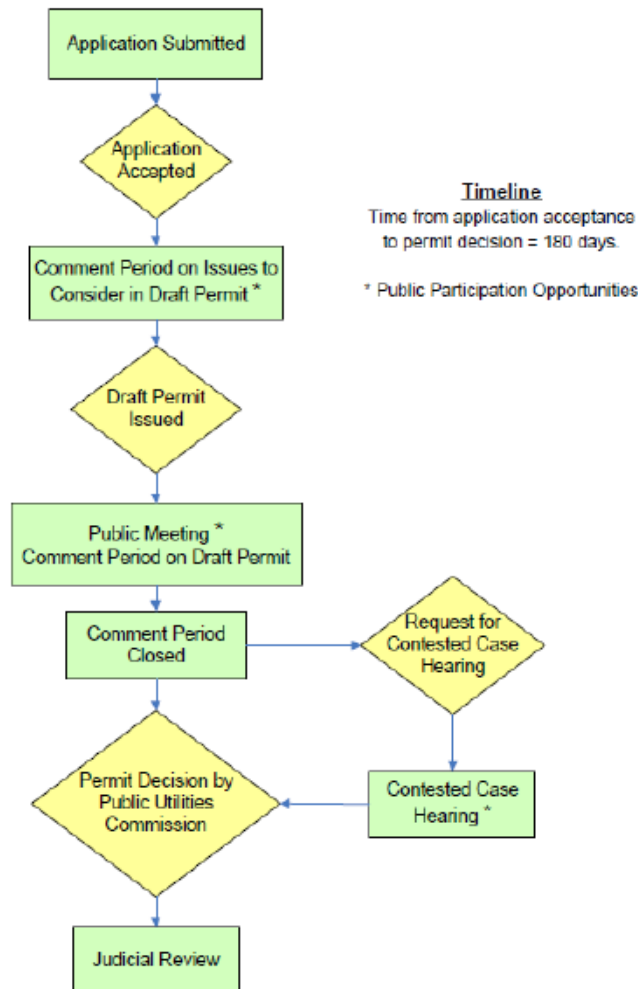
Transmission:

- 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



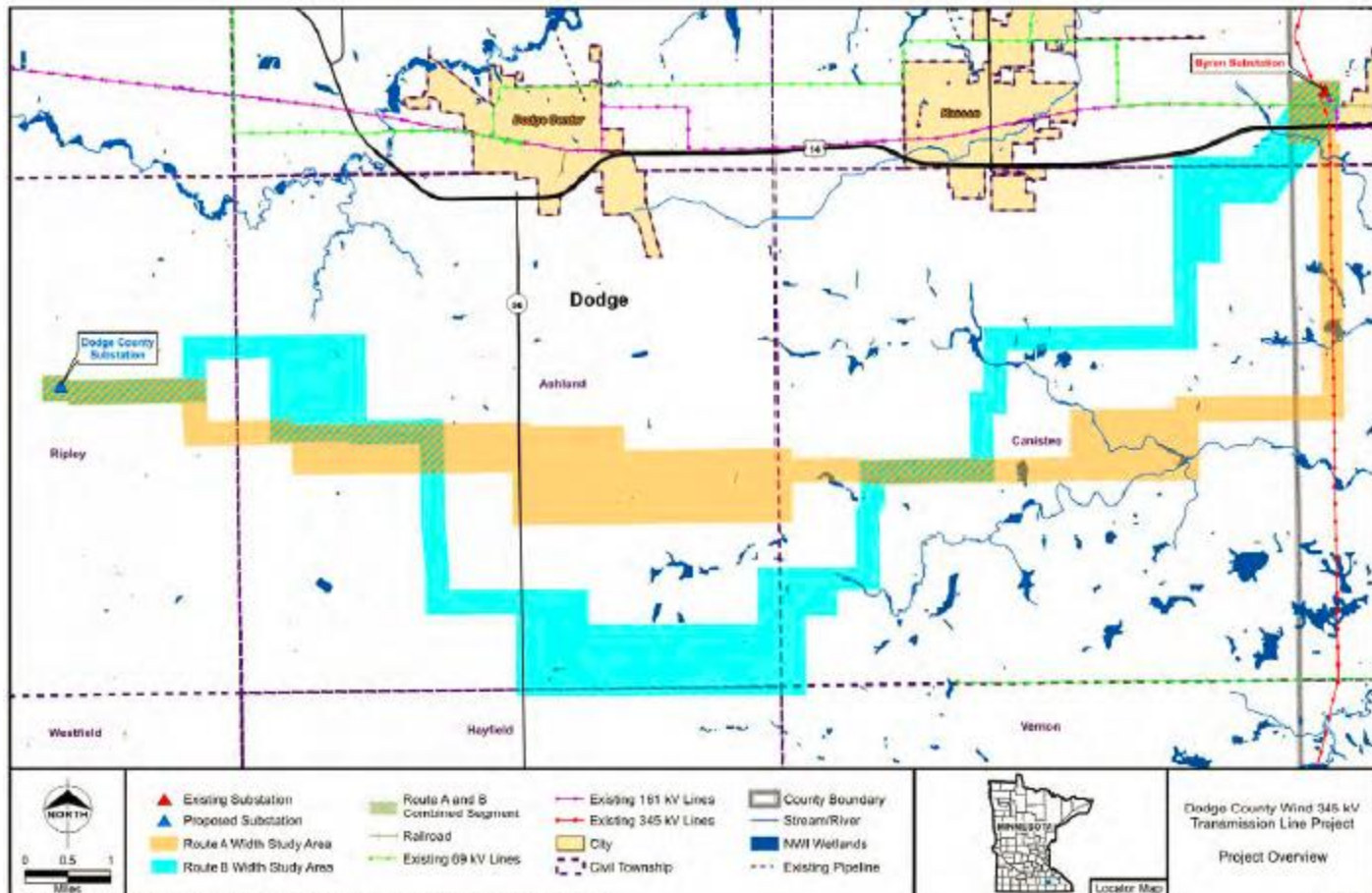
Wind Site Permit - IP-6981/CN-17-307



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.

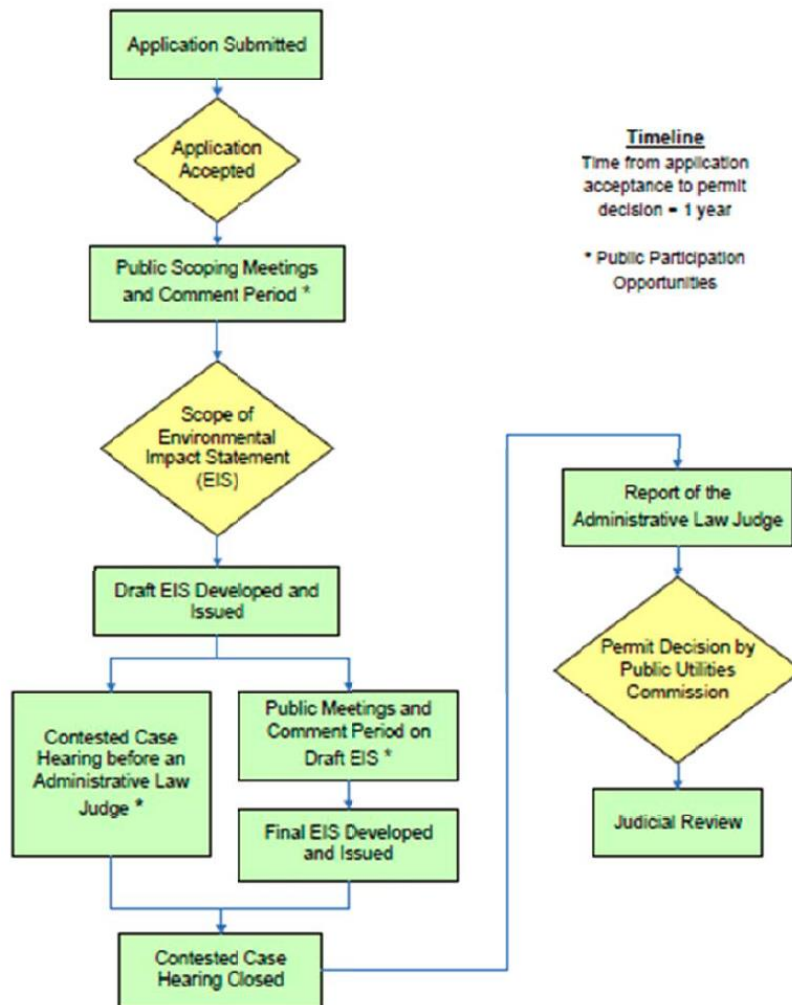
Xmsn Route Permit - IP-6981/CN-17-308



Source: National Hydrography Dataset, Minnesota DNR, Minnesota Geo GIS, Minnesota DPT, ABB Volcanic Scar, Reno & Mackwell

June 21, 2014

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 2nd 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 ₅₀ | L ₁₀ | L ₅₀ | L ₁₀ |
| 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?

Environmental Review – sticky issue

Environmental Impact Statement, Environmental Report, or NO REVIEW AT ALL?

A high voltage transmission line, such as this 345kV line, requires a full blown Environmental Impact Statement (EIS).

Certificate of Need review gets an Environmental Report. That is a lower level review than an EIS, not iterative process.

NO environmental review is required for a wind project – really – it's the law!

PUC asks whether there should be joint process, i.e., meetings, hearings, “and an environmental impact statement in lieu of an environmental report?” **YES – EIS on all aspects of project!!**

For more information - www.mn.gov/puc



Click
eDockets
here
← ← ←

Scroll down to this:

Year Number

Docket Number: - [Docket Lookup](#) Examples: 03-101, 04-020.1

Document Type:

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

For more information - www.mn.gov/puc

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

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| Document ID | Class | Docket # | Subscribe | Docket Type | On Behalf Of | Document Type | Received Date |
|-------------------------------|--------|----------|--------------------------|-------------|------------------------|--|---------------|
| 2018-14434-01 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | PUC | NOTICE OF COMMENT PERIOD--NOTICE OF COMMENT PERIOD ON APPLICATION COMPLETENESS | 07/13/2018 |
| 2018-14434-04 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | PUC | NOTICE OF COMMENT PERIOD--CERTIFICATE OF SERVICE AND SERVICE LISTS | 07/13/2018 |
| 2018-14431-01 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--SERVICE LETTER AND CERTIFICATE OF SERVICE | 08/29/2018 |
| 2018-14431-02 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--DODGE COUNTY WIND APPLICATION FOR LWECB SITE PERMIT | 08/29/2018 |
| 2018-14431-03 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX A TO SITE PERMIT | 08/29/2018 |
| 2018-14431-04 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX B TO SITE PERMIT | 08/29/2018 |
| 2018-14431-05 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX C TO SITE PERMIT | 08/29/2018 |
| 2018-14431-06 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX D TO SITE PERMIT | 08/29/2018 |
| 2018-14431-07 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX E TO SITE PERMIT | 08/29/2018 |
| 2018-14431-08 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX F TO SITE PERMIT | 08/29/2018 |
| 2018-14431-09 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX G TO SITE PERMIT | 08/29/2018 |
| 2018-14431-10 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX H TO SITE PERMIT | 08/29/2018 |
| 2018-14432-01 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX I OF SITE PERMIT 1 OF 4 | 08/29/2018 |
| 2018-14432-02 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX I OF SITE PERMIT 2 OF 4 | 08/29/2018 |
| 2018-14432-03 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--APPENDIX I OF SITE PERMIT 3 OF 4 | 08/29/2018 |
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| 2018-14432-07 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--MAP 1 TO SITE PERMIT | 08/29/2018 |
| 2018-14432-08 | PUBLIC | 17-307 | <input type="checkbox"/> | WS | DODGE COUNTY WIND, LLC | INITIAL FILING--MAP 2 TO SITE PERMIT | 08/29/2018 |

Completeness Comments due SOON

Completeness Comments are due August 10, 2018.

Reply Comments referring to others' are due August 17.

After Comment periods close, PUC staff will review comments, schedule this matter on meeting agenda, and give 10 days notice to service list and public.

Commerce – EERA will file recommendations on questions raised, and PUC staff will publish Staff Briefing Papers indicating their view and recommendation (if any) to Commission. All will be filed in eDockets for your review.

Commission will meet and decide on issues raised, including whether case(s) will be referred to OAH for hearing, for contested case, whether joint or separate, and will ID environmental review format (ER or EIS, and which dockets). Process is engaged, and clock starts ticking.

For more information – Fire away!

Q & A!!!