

PUBLIC MEETING

MONTICELLO NUCLEAR GENERATING PLANT UPRATE PROJECT

**Public Informational &
Environmental Document Scoping
Meeting**

Minnesota Department of Commerce

Thursday, May 29 2008

River City Extreme

3875 School Boulevard

Monticello, MN



TONIGHT'S AGENDA

- **Introduction**
 - **Sign-in sheet, comment sheet, materials.**
 - **OES staff, PUC staff, Xcel Energy Representatives.**
- **Xcel Energy Presentation**
- **OES Presentation: CON & PPS Process**
 - **OES and the PUC**
 - **CON Docket E002/CN-08-185**
 - **Siting Docket E002/GS-07-1567**
- **YOUR COMMENTS!**

XCEL ENERGY PRESENTATION

PETITION TO THE
MINNESOTA PUBLIC UTILITIES COMMISSION
FOR A CERTIFICATE OF NEED FOR THE
MONTICELLO NUCLEAR GENERATING PLANT
FOR EXTENDED POWER UPRATE

DOCKET No. E002/CN-08-___

FEBRUARY 14, 2008



APPLICATION TO THE
MINNESOTA PUBLIC UTILITIES
COMMISSION

FOR A
GENERATING PLANT SITE PERMIT

MONTICELLO NUCLEAR GENERATING PLANT
EXTENDED POWER UPRATE PROJECT

DOCKET NO. E002/GS-07-1567

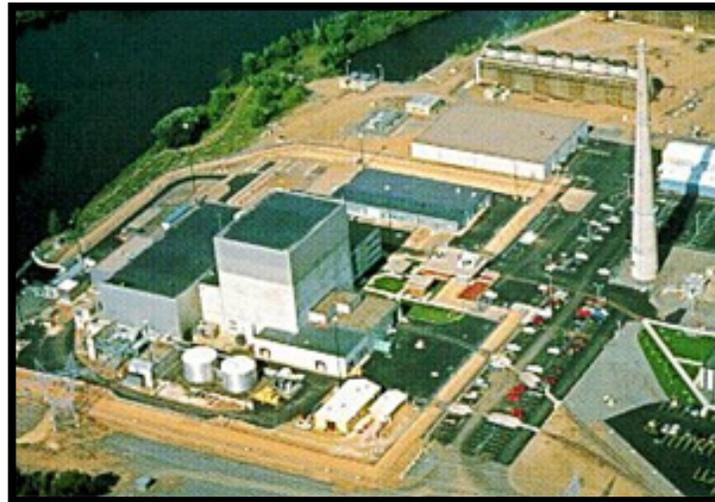
MAY 2, 2008

PREPARED BY XCEL ENERGY AND NUCLEAR MANAGEMENT COMPANY LLC.



Monticello Nuclear Generating Plant

Monticello, MN



**Extended Power Uprate
Certificate of Need and Site Permit
Applications Public Meeting
May 29, 2008**

Xcel Energy Presenters

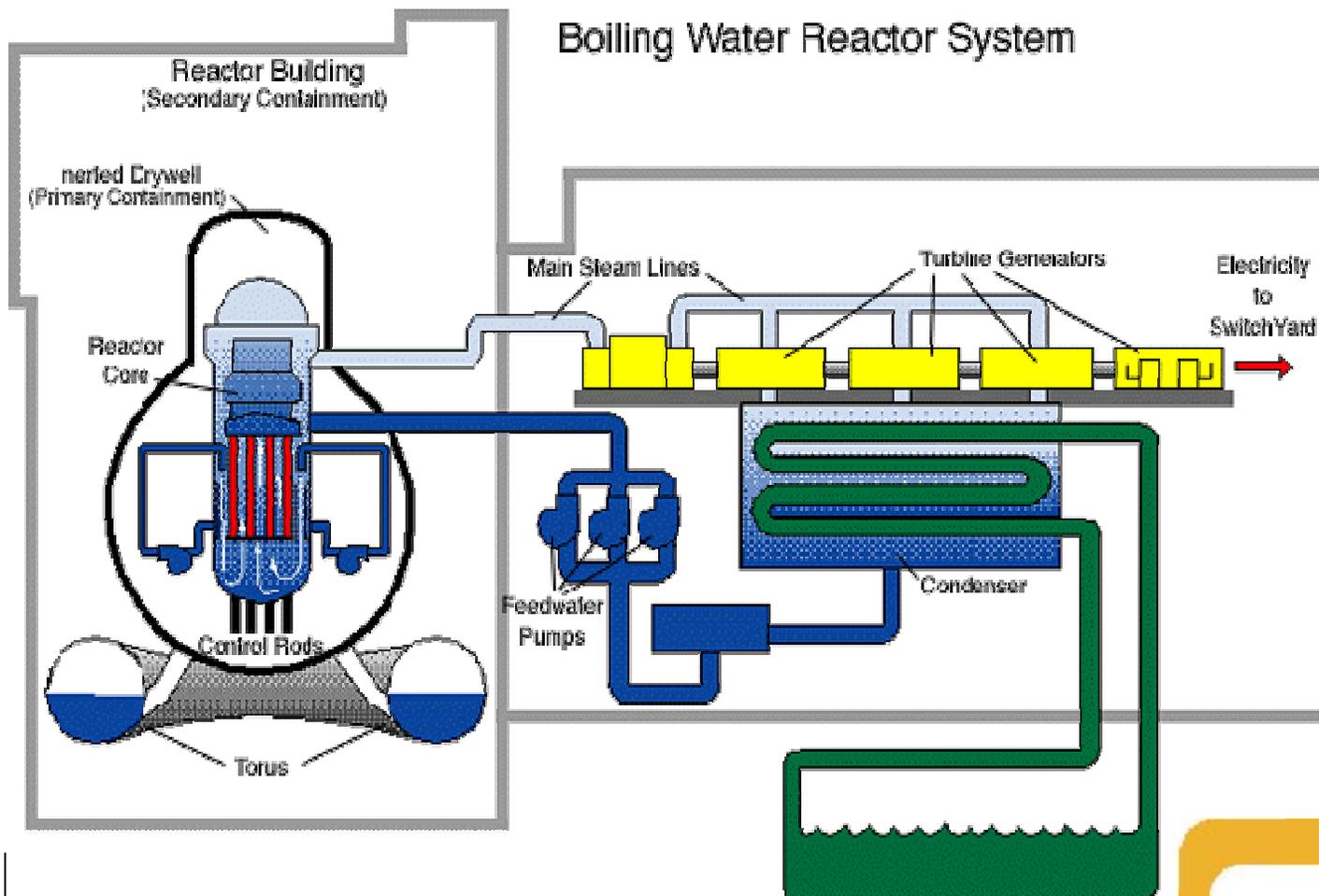
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Manager, Regulatory Administration
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- Terry A. Pickens
Manager, Nuclear Regulatory Policy
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Monticello Nuclear Plant

- 600 MW Boiling Water Reactor – operational since 1971
- NRC issued Order granting relicensing on Nov. 8, 2006 (2030)
- PUC issued Order allowing on-site dry storage on Oct. 23, 2006



How does a BWR produce energy?

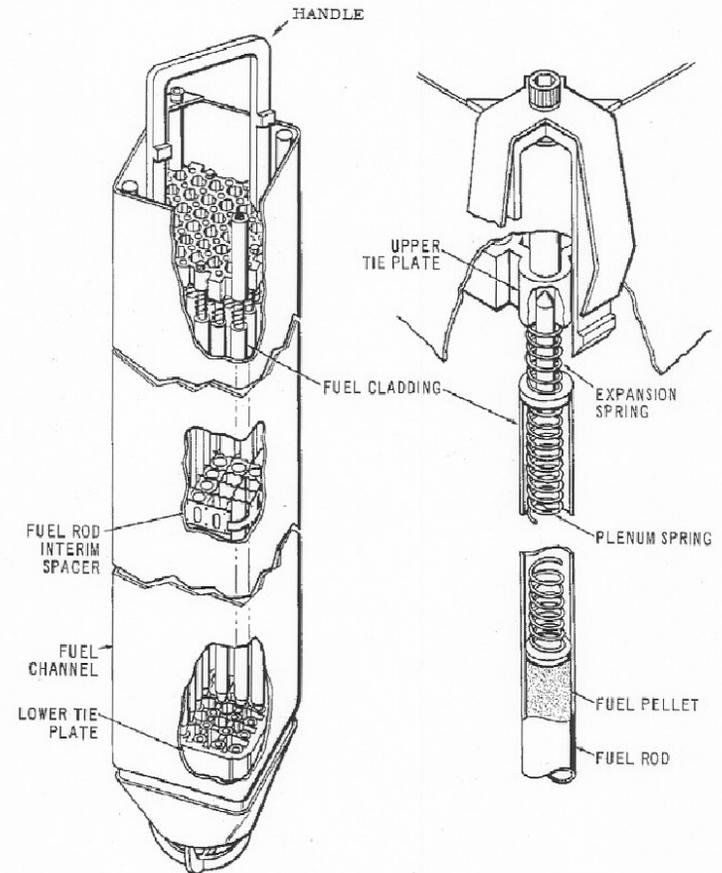


Our Proposal

- Increase electrical output by 71 Megawatts (MW)
 - Nominal capacity from 585 MW to 656 MW
- Extended power uprate (13% power increase)
- Scheduled over two refueling outages (2009 and 2011)
- Will require no modifications to reactor
- No changes to fuel, fuel design, or operating pressure are required
- Will require significant modifications to balance-of-plant systems

Power Uprate Nuts and Bolts

- The power uprate will be achieved by:
 - 1) Increasing the amount of steam produced in the reactor
 - 2) Improving the balance-of-plant equipment that converts the steam into electricity



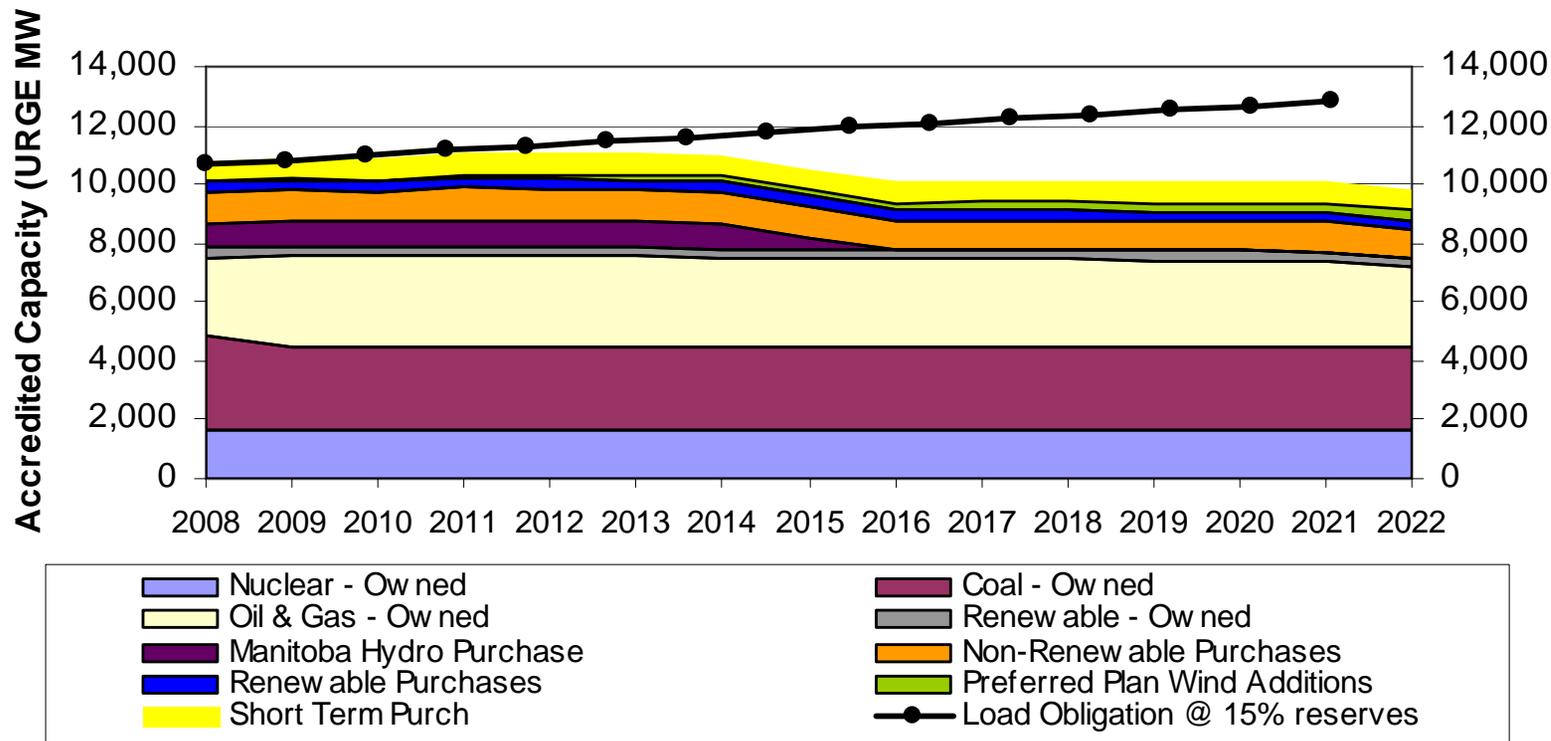
Power Uprate Nuts and Bolts

- Balance-of-plant changes include replacement or modification of:
 - High and low pressure turbines
 - Condensate demineralizers
 - Condensate pumps and motors
 - Feedwater pumps and motors
 - Steam dryer (potential replacement)

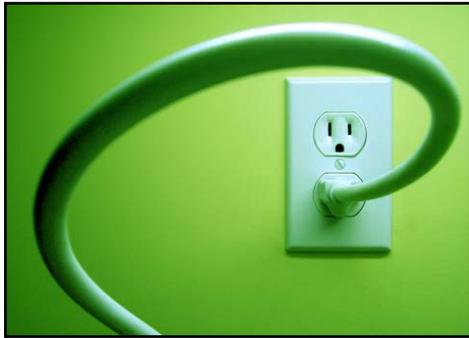
Why propose this project?

- Nuclear power makes up 28% of Xcel Energy's supply in the Upper Midwest
 - Monticello: 600 MW BWR (10% energy, 5% demand)
 - Prairie Island 1,100 MW PWR (18% energy, 10% demand)
- Operate 24 hours per day 7 days per week
- Highly reliable
 - Monticello maintains an average capacity factor of 94.2%
- Nuclear power does not emit green-house gases

Xcel Energy Resources



Meeting Our Customers' Growing Energy Needs



- Electric energy and capacity needs are growing at over 1% per year
- To serve our customers, we project we will require an additional 126 MW of capacity by 2010 and 2,800 MW by 2022
- Next Generation Energy Act (2007)
 - 25% of retail sales from wind by 2020
 - 2X current efforts (1.1% of retail sales)
 - 15% by 2015, 30% by 2025, and 80% by 2050

Benefits of Power Uprate

- Significant cost benefit to customers
- Significant environmental benefits
 - Carbon neutral (decrease)
 - Existing site
- Hedge to future risks
 - Fuel cost commodity
 - Environmental regulations
- Local tax benefits, economic development benefits

Monticello Power Uprate Benefit Analysis Results

	<u>PVRR</u> <u>(Millions)</u>	<u>Increase in CO₂</u> <u>(Tons)</u>
Natural Gas Combustion Turbine	\$169	6,376,480
Coal PPA	\$273	12,247,950
Biomass	\$514	25,090,410

Project Impacts

- Minimal impact on the environment – power uprate will be operated within limits of all existing air and water permits
 - Water consumption for cooling will increase slightly
 - Temperature of water discharged will increase slightly (4.5°F maximum in winter)
 - Solid waste will increase by 3 cubic meters per year
 - On-site and off-site radiation dose will increase slightly

Summary

- The Monticello plant plays an integral role in the reliability and strength of our overall system
- Increasing power generation capabilities will assist us in meeting our goals for cost-effective, environmentally-friendly energy for our customers
- We look forward to working with you throughout the approval process and beyond

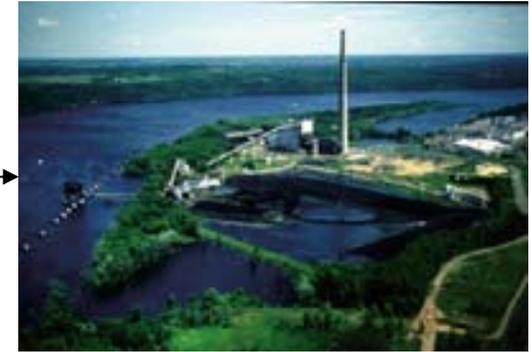


Thank you!

PUBLIC UTILITIES COMMISSION ENERGY FACILITY PLANNING



Large Wind Energy Conversion Systems



Large Electric Power Generating Plants



High Voltage Transmission Lines



Pipelines

**MINNESOTA
CERTIFICATE OF NEED
PUC Docket No. E002/CN-08-185**

Minnesota Statutes

Certificate of Need for large energy facility

- No large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need (CON) by the Commission pursuant to sections 216C.05 to 216C.30.
- Since the MNGP Uprate project will increase the generating capacity of the plant by more than 50 MW a CON is required.

Minnesota Statutes

Certificate of Need for large energy facility

- No proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures and unless the applicant has otherwise justified its need.
- On February 14, 2008, Xcel Energy submitted a CON application supporting its position that the MNGP Uprate is the most cost-effective option available.

Milestones

2-14-2008

4-18-2008

5-29-2008

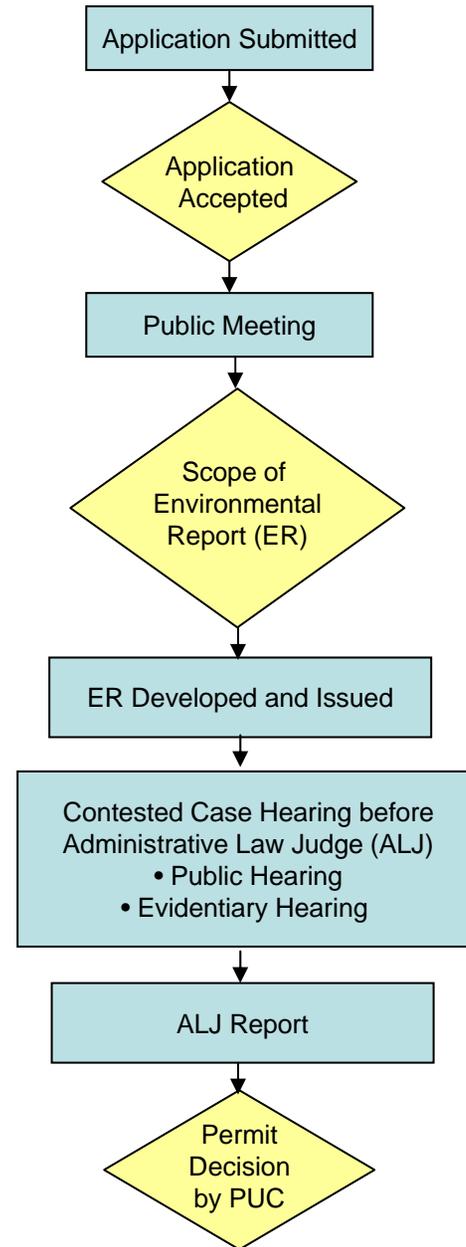
6-13-2008

7-31-2008

8-xx-2008 PH

10-6-08 EH

Certificate of Need Process



CON: Environmental Review

- The Office of Energy security (OES) prepares an Environmental Report (ER) on proposed large electric power generating plants that come before the PUC for a determination of need (Minn. Rules 7849.7100).
- The ER must contain information on the human and environmental impacts of the proposed project associated with the size, type, and timing of the project, system configurations, and voltage.
- The environmental report must also contain information on alternatives to the proposed project and address mitigating measures for anticipated adverse impacts.

CON: Public Hearing

- Minnesota Statutes § 216B.243, Subd. 4 require a public hearing be held for the CON to obtain public comments on the necessity of the project. The public hearing shall be held at a location and hour reasonably calculated to be convenient for the public.
- An objective of the public hearing shall be to obtain public opinion on the necessity of granting a certificate of need.

CON: Public Hearing

- In its April 18, 2008, order, the Commission referred the Certificate of Need docket (PUC Docket No. E002/CN-08-185) to the Office of Administrative Hearings to conduct a contested case hearing. The ALJ will issue a report containing findings, conclusions, and a recommendation on whether the Commission should issue a certificate of need for the proposed project.

MINNESOTA

SITING & ROUTING

PUC Docket No. E002/GS-07-1567

Power Plant Siting Act

- The proposed uprate of the electrical generating capacity of the MNGP from 585 MW electric to 656 MW electric falls within the definition of a Large Electric Power Generating Plant (LEPGP) in the Power Plant Siting (PPS) Act and, thus, requires a Site Permit from the Commission prior to construction (Minn. Stat. § 216E).

PPS: PERMITTING PROCESS

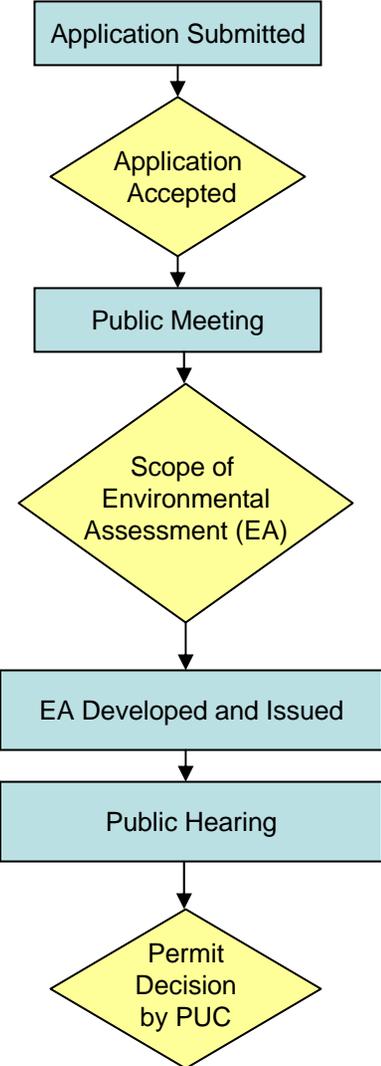
- Two processes available for permitting LEPGPs depending on the type and size of the proposed project.
- **Full Review Process** - may take up to one year.
- **Alternative Review Process** - may take up to six months.
- Both require environmental review and public participation.

PPS: Alternative Review Process

- On May 2, 2008, Xcel Energy submitted an application for a LEPPG Site Permit pursuant to Minn. Rule 7849.
- The proposed MNGP power uprate qualifies for the alternative environmental review process (Minn. Rule 7849.5500) and Xcel Energy has applied for a site permit following the alternative review process.

Alternative Site Permitting Process

Milestones



5-2-2008

5-12-2008

5-29-2008

6-13-2008

7-31-2008

8-xx-2008 PH

No EH

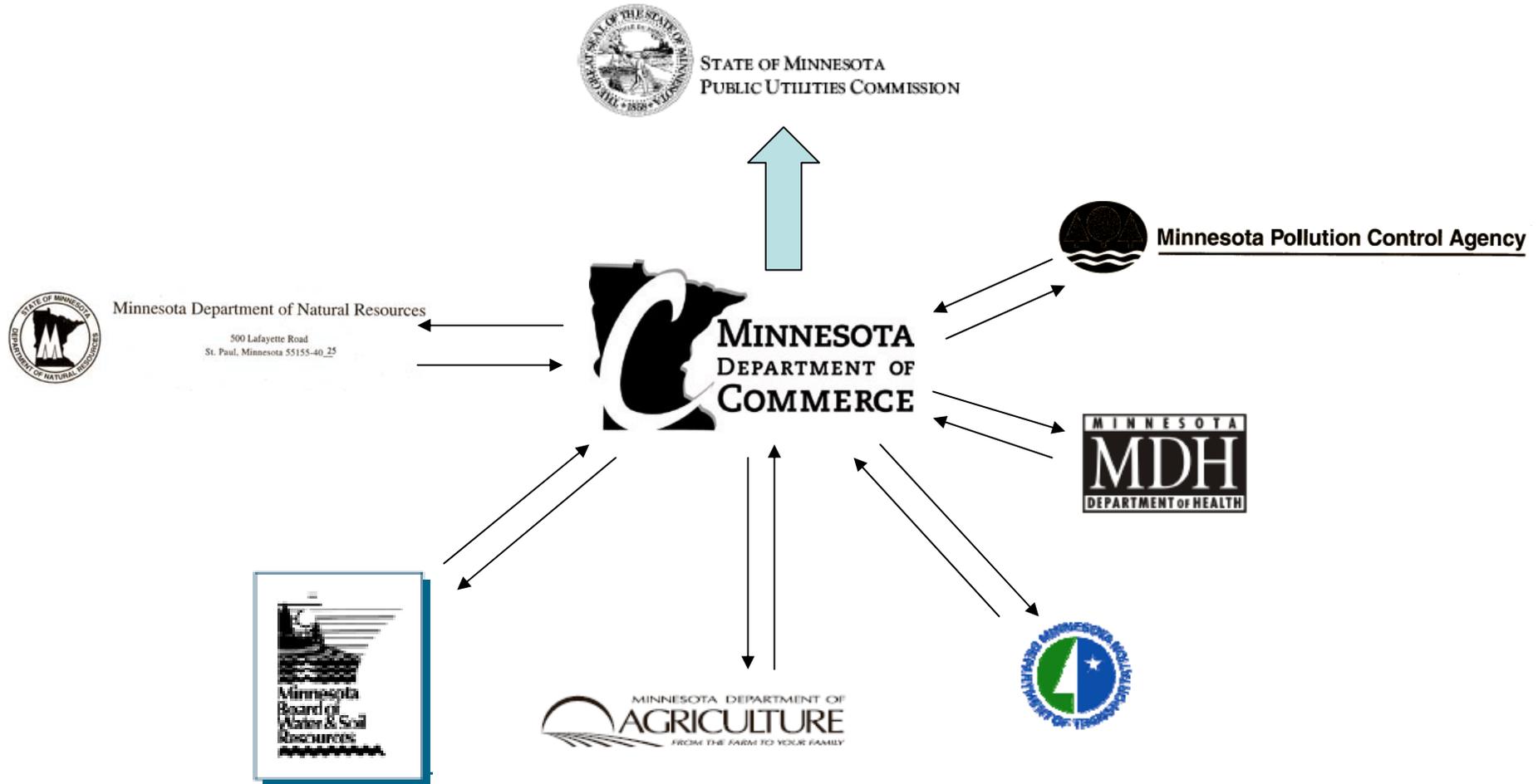
PPS: Alternative Review Process

- Applicant need not identify alternative sites.
- OES holds a Public Information/Scoping Mtg.
- OES prepares an Environmental Assessment.
- A public hearing must be held before the PUC makes a decision on the matter.
- PUC has six months from the time the application is accepted to reach a final decision

Other Permitting Agencies

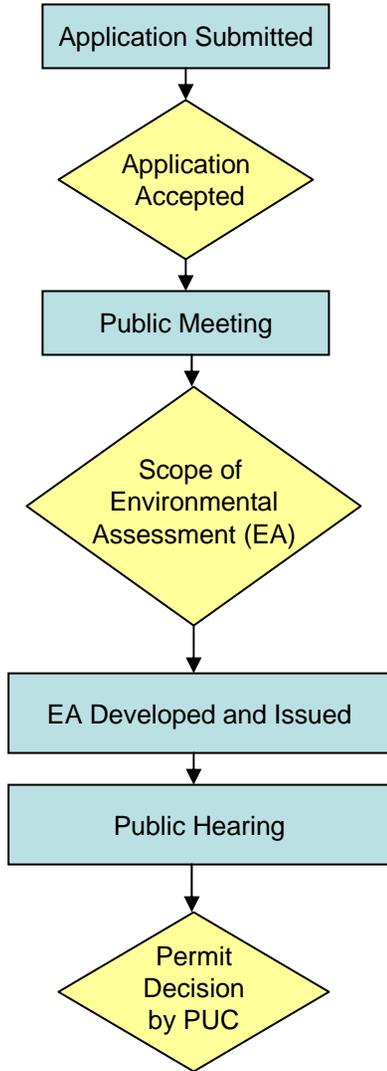
State agencies having jurisdiction (permit authority) involving large energy projects must participate in the siting and routing process

Participating Agencies

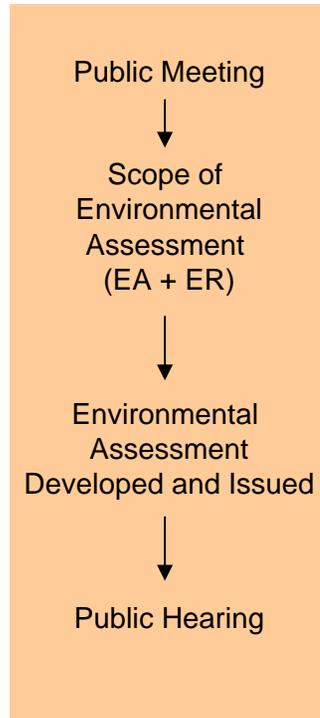


**COORDINATION
of the
TWO PROCESSES
CON & SITING**

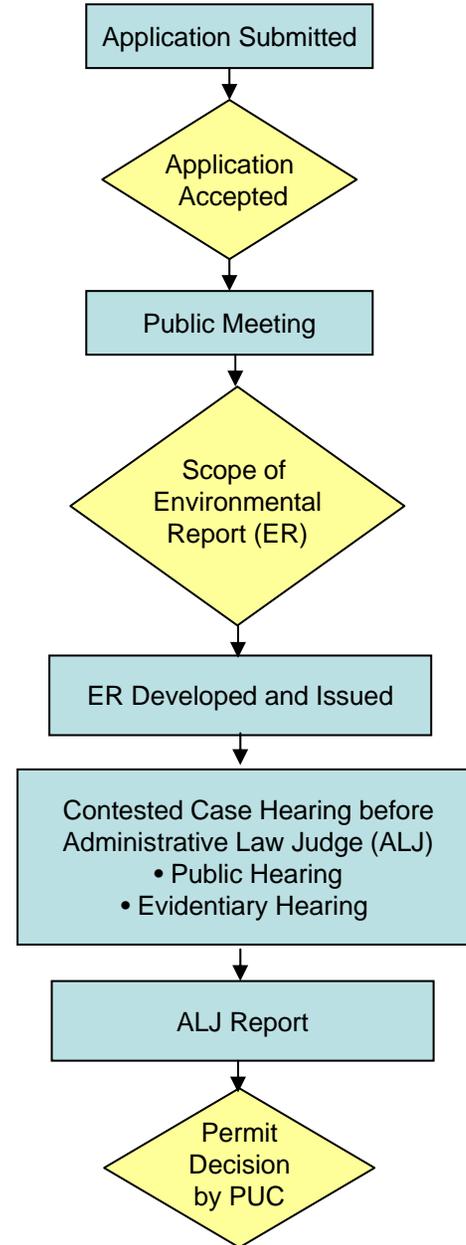
Site Permitting Process



Coordinated Process



Certificate of Need Process



Project Information

MPUC Energy Facility Permitting Web-site:

<http://energyfacilities.puc.state.mn.us/Docket.html?Id=19542>

MPUC eDocket:

<http://www.puc.state.mn.us/index.htm>

Click on eDockets & eFiling, select Search Documents and enter the year and number:

CON = 08, then 185

Siting = 07, then 1567



LOGISTICS FOR ORAL COMMENTS

- **5 minutes per speaker!**
- An additional opportunity to speak at the end, if time allows.
- Please state your name
- Comment sheets available, if you prefer
– **due by Monday, June 9, 2008**

DUE DATE FOR COMMENTS

June 9, 2008

SEND COMMENTS TO:

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651-296-9535

