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*IGCC: Asking the Hard Questions*  
*Can Coal Ever Be “Clean”?*  
Denver, February 12<sup>th</sup> 2007

Mary Jo Stueve

***Clean Water Action South Dakota***  
**COAL: It's Time to Pass the Baton**

# About Clean Water Action

National organization of more than 1.2 million

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of diverse people and groups working together for:

- **Clean Water** – Assuring supplies of clean, safe and affordable water for all Americans, now and for the future.
- **Protecting Health** – Preventing health-threatening pollution at its source.
- **Creating Jobs** – Building an economy based on environmentally safe jobs and businesses.
- **Making Democracy Work** – Empowering people to take charge of our environmental future.

# Presentation Overview

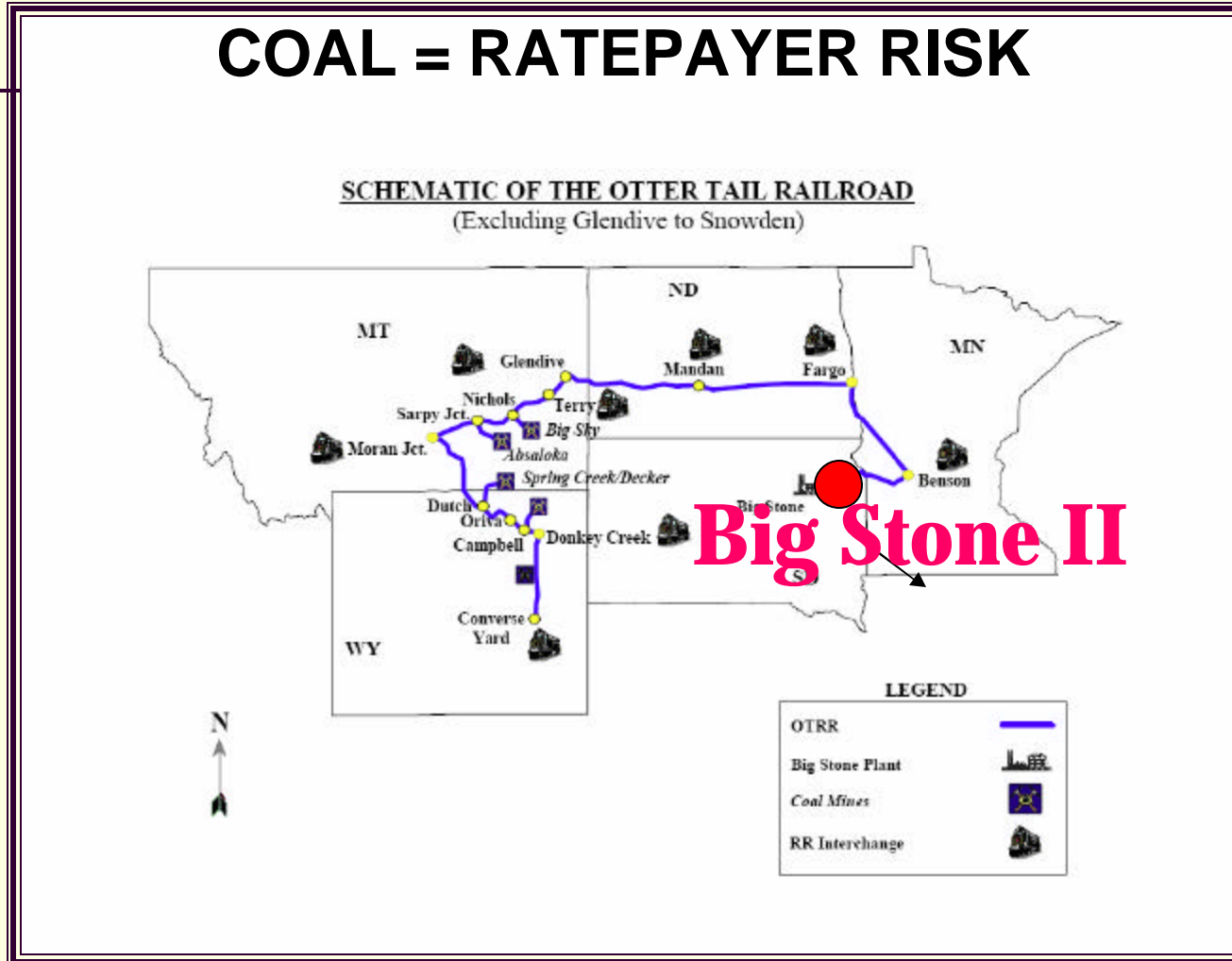
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## **BIG STONE II COAL CASE STUDY**

- **Players & Action Arenas**
- **Key Issues**
- **Power-Ploys & Counter-Ploys**
- **Media Matters**
- **Lessons Learned**

# RELIABLE? LEAST (BEST) COST?

## COAL = RATEPAYER RISK



Otter Tail Power Presentation [Railroad Shipping meeting](#), SD PUC April 21, 2006, Sioux Falls SD  
[A Wakeup Call for Coal](#) Public Utilities Fortnightly, December [www.pur.com](http://www.pur.com), Gary L. Hunt, Global Energy  
Advisors, and Hans Daniels, Global Energy Coal Advisory Service.

# Players & Action Arenas

Proponents	Challengers	Regulatory
<b>IOU</b> + co-owners	Joint Intervenors	<u>SD PUC</u>
<b>COAL</b>	Sierra Club – CWA – CURE	<u>MN DOC, ALJ,</u> <u>PUC</u>
<b>Market P</b>		
<b>GOED</b>	<b>CITIZENS for Big Stone Lake</b>	<u>WAPA</u> FWS ACE <u>SWST</u>
<b>SD GOV</b>	<b>MN GOV</b>	<u>SD DENR</u> <u>MN DNR</u>

**Court of Public Opinion**

# KEY ISSUES

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- MERCURY
- CO2 / GLOBAL WARMING
  - Carbon Regulations / Carbon Tax
  - Ratepayer Risk
- LEAST (BEST) COST / NEED
- WATER

## Emissions Control Summary

### **They said**

- Sulfur dioxide, nitrogen oxides, and mercury emissions from both units are targeted to be less than or equal to Unit 1's emissions in 2004.

**They omitted that Plant Unit 1 was grandfathered in—top of U.S. dirty for NOX**

**We found out that mercury emissions would more than double to 399 pounds**

Applicants Presentation, South Dakota Public Utilities Commission Big Stone II Energy Conversion Facility Siting Permit Public Hearing, 13 September 2005, Milbank SD, slide 17 of 44.

<http://www.state.sd.us/puc/commission/dockets/electric/2005/EL05-022/exhibit1a.pdf>

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# The Mercury Letter

From Big Stone II to SD DENR, May 31, 2006

CWA Mercury Email Alert

Sent: Tuesday, May 30, 2006 8:50 PM

To: Big Stone County Commissioners

mercury emissions will double

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# CO2 / Global Warming

Carbon Regulations / Carbon Tax  
Ratepayer Risk

EL05-022 Testimony (T) on CO2 Cost			Operative CO2 Emissions Markets			
Witness / Source	\$ / ton CO2 assuming legislation	Reference	CCX Carbon Financial Instrument (CFI) Contracts Prices quoted in \$ / ton <sup>7</sup>		ECX Carbon Financial Instrument Futures (CFI) Market Prices quoted in € / metric tonne <sup>8</sup> =USD	
Tielke	\$0/ton	App' Exh 44, at p. 16, lines 21-22 (public version)	Date	Close at	Date	Price
Hewson		App' Exh 30, at p. 3, lines 10-14				

**Conservative Estimates for BSII > 4.5 million tons CO2  
19 USD\$ million per year to purchase carbon credits**

Denney	\$0/ton	1. at p. 673, lines 19-22	Dec 2005	\$1.75	12/30/05	21.70 = \$27.00
Hewson, Jr	\$6/ton beginning 2013	Exam by PUC Johnson T. at p. 577-78, lines 12-25; 1-7.				Front Sett
Hewson, Jr	Considerably < \$14/ton	App' Exhibit 30, at p. 28, lines 4-5	Jan 2006	\$1.90	01/31/06	26.05 = \$33.12
Greig	'Breakeven' for investor-owned \$14/ton	Exam by PUC Johnson T. at p. 346-47, lines 13-25; 1-7; App' Exh 13-A, Section 6, p. 6-3	Feb 2006	\$2.05	02/28/06	25.95 = \$32.99
Schlissel & Sommer	Midpoint, levelized \$19.10/ton	T. at p. 726, lines 5-17	Mar 2006	\$2.75	03/31/06	26.95 = \$34.27
Greig	'Breakeven' for public power-ownership \$23/ton	Exam by PUC Johnson T. at p. 346-47, lines 13-25; 1-7; App' Exh 13-A, Section 6, p. 6-3	Apr 2006	\$3.90	04/28/06	13.30 = \$16.91
			May 2006	\$3.85	05/31/06	17.05 = \$21.67
			Jun 2006	\$4.55	06/30/06	15.65 = \$19.90
			Jul 2006	\$4.4	07/31/06	16.05 = \$20.40
			Dec 2012			20.20 = \$25.68

SD PUC EL05-022 Application for Reconsideration II, Stueve 8/14/2006

<http://www.state.sd.us/puc/commission/dockets/electric/2005/el05-022/ApplicationforReconsiderationII.pdf>

**\$4.40**

**\$25.68**



Union of  
Concerned  
Scientists

## Financial Risk to Big Stone II

<b>Future CO2 “allowance” prices</b>	<b>Impact on cost of energy from Big Stone II</b>
<b>High</b>	<b>increases 59-73%</b>
<b>Medium (most likely)</b>	<b>increases 37-46%</b>
<b>Low</b>	<b>increases 15-19%</b>

Source: Direct Testimony of David A. Schlissel and Arma Sommer, Synapse Energy Economics, Application by Otter Tail Power Company on behalf of the Big Stone II Co-owners for a Energy Facility Siting Permit, Case No EL05-022, South Dakota Public Utilities Commission, May 19, 2006.

# CO2- grandfathering not envisioned

- Bingaman and Boxer - rather than building plants likely to cause “a tragedy for the climate,” utilities should “spend their [ratepayers’] funds so as to be part of the solution to climate change, not a part of the problem.” Don’t expect grandfathering.

## DUKE'S Cliffside Carbon Cost Scenarios

- ...although both the likelihood and the magnitude of the costs risks of carbon regulation are very high, Duke [like BSII] is not deterred from investing \$4 billion in old style pulverized coal plants because it does not bear the risk: ratepayers, including businesses, bear the risk.”

Jeff Bingaman, Chair, Senate Committee on Energy and Natural Resources, and Barbara Boxer, Chair, Senate Committee on Environment and Public Works. Dallas Morning News. January 19, 2007.

Synapse Testimony cited in February 2<sup>nd</sup>, 2007 Beth Henry Letter to Charlotte Area Business Leaders RE: Direct financial risks to Charlotte businesses of Duke’s proposed Cliffside expansion.

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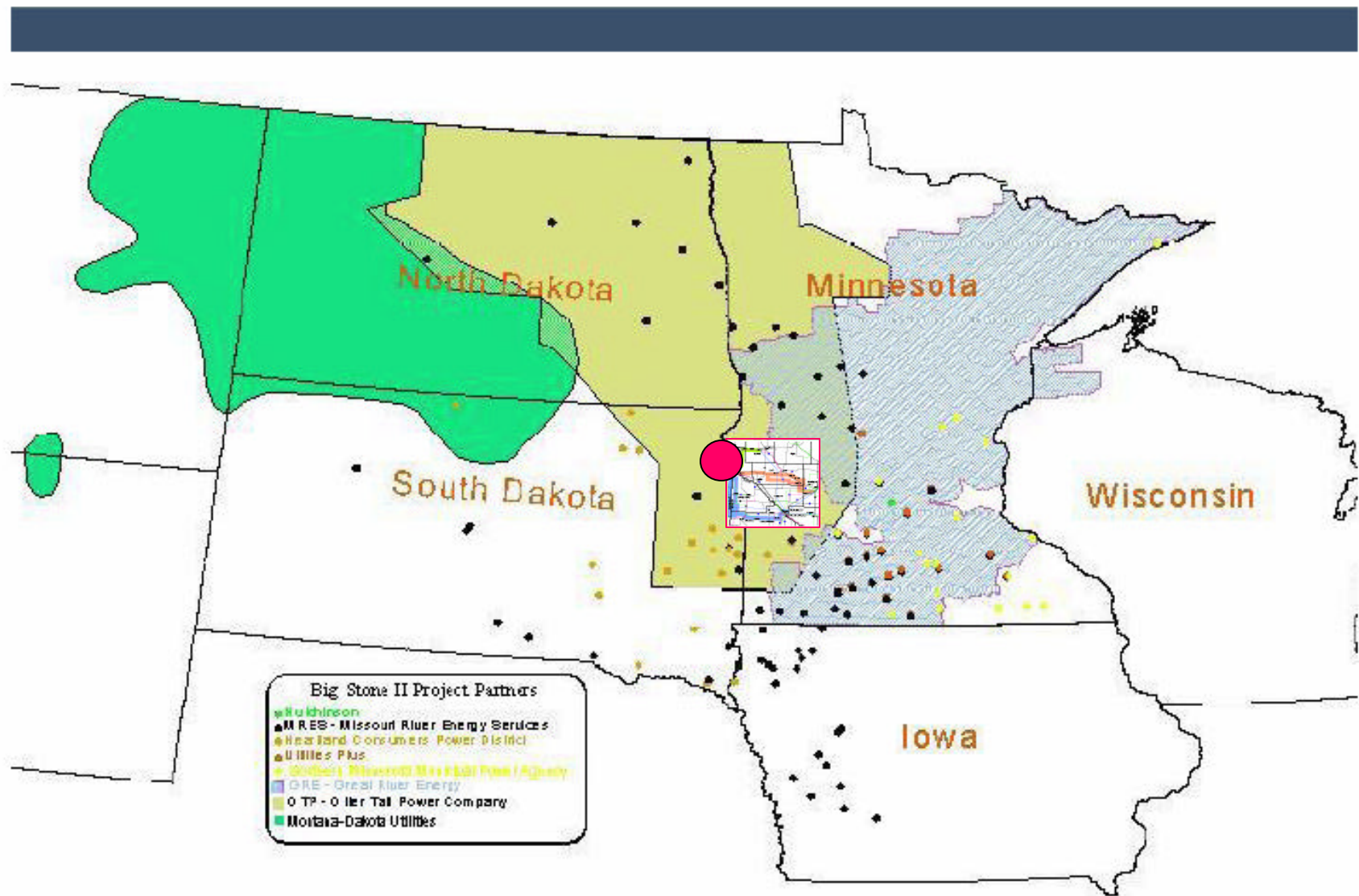
# LEAST (BEST) COST / NEED

## INPUTS DETERMINE OUTPUTS

BSII project area- Co-owners service territory-

MAPP and MRO

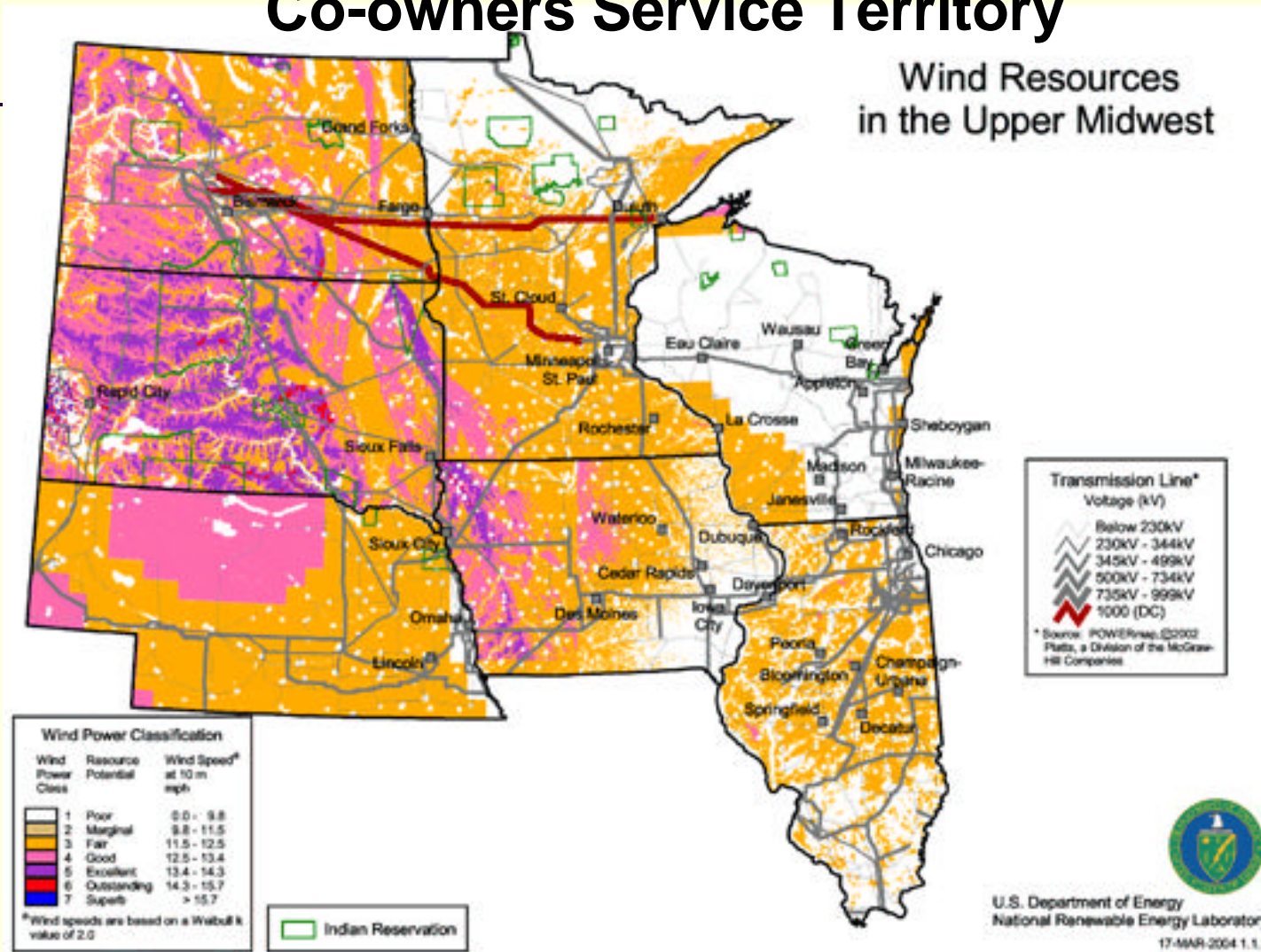
Transmission Tariff Troubles? Open Market Squabbles?



# Co-owners' Service Territories

\*BSII project area overlaid, not to scale <http://www.state.sd.us/puc/commission/dockets/electric/2005/EL05-022/exhibit1a.pdf>

# WIND & RENEWABLES CAN MEET NEED for Co-owners Service Territory



Map slide from presentation by Bill Grant, *Associate Executive Director, Izaak Walton League of America*, October 24, 2006 University of Minnesota Presentation.

# WATER

***"Whiskey is for drinking, water is for fighting over", Mark Twain***

***"The wars of the next century will be about water", The World Bank***

# Reconvene the South Dakota-Minnesota Boundary Waters Commission (CWA- CURE)

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- Big Stone II, estimated to draw 3.2 billion gallons of water annually from SD-MN Big Stone Lake
- BSII Co-owners also plan to apply for a groundwater permit, having dismissed early on a dry cooling option, which would have required no additional water use. This, in spite of their own tri-state groundwater study, which showed that regardless of the source aquifer or use, groundwater levels are declining in most areas and that the only other potential option for securing a groundwater supply would be to purchase and retire irrigated farmland with existing water rights, some 6,000-12,000 acres

# BSII Nation-to-Nation Consultation?

## When? How? Where?

Sisseton-Wahpeton Sioux Tribal Districts:

Old Agency, Lake Traverse, Buffalo Lake, Enemy Swim,  
Big Coulee, Long Hollow, Veblen

Problems with water quality and inadequate supply are  
common throughout the reservation

# Power Ploys / Counter Ploys

Direct Testimony of Marshall R. Goldberg SD PUC EL05-022, 19 May 2006

Permanent jobs (direct and indirect):

Big Stone II: 64\*

Comparable Wind: 483

Annual contribution to state economy (SD):

Big Stone: \$ 6.8 million\*

Comparable Wind: \$34.9 million

Construction jobs (4 year period):

Big Stone II: 1210 avg. annually\*

Comparable Wind: 1002 avg. annually

\*Assumes 50% construction costs spent in-state

# BSII Coal Plant

## – Gambling with your Rate?

**Net revenue** from the **resale of purchased power**, MISO virtual transactions, financial transmission right transactions and **net mark-to-**  
OTTR SEC EDGAR Filing Information Form 8 K Period of Report 3007-02--05,  
Filing Date Changed 2007-02-09, Exhibit 99.1 Results of Operations and  
Financial Condition, Material Modifications to Rights of Security Holders,  
Financial Statements and Exhibits,

<http://www.sec.gov/Archives/edgar/data/75129/000095013707001800/c12170exv99w1.htm>

**Increase in retail revenue** includes **\$9.5 million** in **increased fuel-clause adjustment** (FCA) revenues, including **\$3.6 million** related to the reversal of \$1.7 million of a \$1.9 million **FCA refund accrued in 2005** and the recording in **2006 of a \$2.6 million** 24-month FCA true-up

**recoverable from Minnesota customers**



# MEDIA MATTERS

Changing Public Opinion  
Changes Public Policy

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# A TRANSITION TO CLEAN RENEWABLE ENERGY

Aside from being  
environmentally responsible  
offers unimaginable, unparalleled, economic  
opportunity

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It also requires access to  
Information, Innovation,  
Transparency and Teamwork

BSII\_Draft Environmental Impact  
Statement (DEIS)  
SEC

# DISCOVER BSII

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- Set of Instructions:
- To Access the Public Electronic Reading Room for the Big Stone II Project Regulatory Site
- Type: <https://extranet.lindquist.com/bigstone> in the Internet Explorer address bar.
- You will then be prompted to enter a case sensitive user name and password:
- Username: BSIIPublic
- Password: Big Stone
- The sections below will appear after you enter your Username and Password. Numbers in parenthesis show document count June 2006
- [Document Libraries Minnesota Certificate of Need - Docket# ET-1631et.al. CN-05-316 Documents \(770\) South Dakota Facility Permit - Docket# ELO5-022 Documents \(925\) South Dakota Transmission Route Permit Application - Docket# EL06-002 Documents \(1\)](#)

# LESSONS LEARNED

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- Media DOES Matter
- Get the Facts but more importantly, ASK the QUESTIONS and TELL the STORY
- 'Burden-of-Proof' belongs on 'Applicants'

## **PUBLIC** Utilities Commission

- Utilize Network, Research, Internet Info
- Various Players have Various Agendas, for example, Enviro Split on IGCC

# Most Important Lesson Learned

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- It's time for COAL to pass the baton to:

**21st Century  
re-NEW-able energy**

Our Future Depends on it

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# QUESTIONS?

THANK YOU!  
CLEAN WATER ACTION  
Our Water. Our Health. Our Future  
[www.cleanwateraction.org](http://www.cleanwateraction.org)