

BIG RIVERS ELECTRIC CORPORATION  
REGULAR BOARD OF DIRECTORS MEETING  
JANUARY 20, 2012

The regular meeting of the Board of Directors of Big Rivers Electric Corporation was called to order at 8 a.m., CST, on Friday, January 20, 2012, at 201 Third Street, Henderson, Kentucky 42420.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The Chair called for management's report. At the work session on Thursday night, Eric Robeson reviewed the Sargent & Lundy Study findings and recommendations regarding the proposed environmental regulations. Mr. Blackburn provided an update on the overall environmental compliance project.


[REDACTED]

[REDACTED]

Mr. Bailey advised that the Coordinating Committee's next meeting is scheduled for February 16. Marty Littrel reported on several meetings held with the Kentucky Department of Economic Development and smelter representatives.

[REDACTED]

[REDACTED]

  
Secretary-Treasurer

APPROVED:

  
Chair



# Environmental Compliance Update

Eric Robeson

January 19, 2012

# Recommendations from Sargent & Lundy Study

- Replace FGD at Wilson
- Install SCR at one Green unit
- Upgrade fans at HMPL and install additional FGD recycle pumps
- Install low NOx burners at HMPL and Wilson
- Convert Reid to natural gas

# CSAPR Update

- On December 30, the DC Court of Appeals issued a stay regarding CSAPR
- Compliance has been suspended pending resolution of this action
- Probable outcome will be a one year delay in implementation
- Until this is resolved, all utilities must continue to comply with CAIR, which was the air regulation prior to CSAPR
- Big Rivers should be in CAIR compliance with minimal NOx allowance purchases for 2012



# **MATS Mercury and Air Toxics Standard**

- Regulations issued in December
- Emissions rates limits instead of total emissions (allowances)
- 2015 compliance date with 1 year extension likely
- Activated Carbon Injection required at all plants
- Precipitator upgrades with dry sorbent injection possible at all plants
- Subject to litigation as well

# CSAPR & MATS Cost Update - Capital

<b>CSAPR CAPITAL EXPENSE ESTIMATES (\$ Millions)</b>					
<b>Project</b>	<b>'12</b>	<b>'13</b>	<b>'14</b>	<b>'15</b>	<b>Total</b>
Wilson FGD	5	30	50	15	100
Green SCR	5	50	20	-	75
HMPL Fan Upgrades	2	6	-	-	8
Reid Conversion	2	-	-	-	2
<b>Total</b>	<b>14</b>	<b>86</b>	<b>70</b>	<b>15</b>	<b>185</b>
<b>MATS CAPITAL EXPENSE ESTIMATES (\$ Millions)</b>					
<b>Activated Carbon Injection and Particulate Monitors</b>					
<b>Station</b>	<b>'12</b>	<b>'13</b>	<b>'14</b>	<b>'15</b>	<b>Total</b>
Coleman	-	-	3.5	10.0	13.5
Wilson	-	-	1.0	4.0	5.0
Green	-	-	1.0	8.0	9.0
HMPL	-	-	-	1.0	1.0
<b>Total</b>	<b>-</b>	<b>-</b>	<b>5.5</b>	<b>23.0</b>	<b>28.5</b>
<b>Overall - CSAPR &amp; MATS CAPITAL EXPENSE (\$ Millions)</b>					
<b>Assumes no additional particulate compliance measures required</b>					
	<b>'12</b>	<b>'13</b>	<b>'14</b>	<b>'15</b>	<b>Total</b>
<b>Total</b>	<b>14.0</b>	<b>86.0</b>	<b>75.5</b>	<b>38.0</b>	<b>213.5</b>



## CSAPR & MATS Cost Update – O&M

<b>CSAPR O&amp;M EXPENSE</b>		
Project	\$ (Millions)	Comment
Wilson FGD	0.70	
Green SCR	1.50	additional 4 personnel
HMPL Fan Upgrades	0.75	
Reid Conversion	-	
<b>Total</b>	<b>2.95</b>	
<b>MATS O&amp;M EXPENSE</b>		
<b>Activated Carbon Injection and Particulate Monitors</b>		
Station	\$ (Millions)	Comment
Coleman	2.55	
Wilson	2.20	
Green	2.40	
HMPL	0.08	
<b>Total</b>	<b>7.23</b>	
<b>OVERALL CSAPR &amp; MATS O&amp;M EXPENSE</b>		
<b>Assume no additional particulate compliance measures required</b>		
<b>Total</b>	<b>10.18</b>	<b>\$ (Millions)</b>

# Alternatives

- Reduce generation and buy purchased power
- Install SNCR at Coleman and Green Units and replace burners at Coleman
  - Estimated cost of \$28M
- Convert Green Units to Natural Gas
  - Estimated \$25M each vs \$75M SCR each
  - MWH cost goes from \$30 to \$50
  - Complies with future HAPS/MACT and CCR regulations
- Buy NOx Allowances instead of SCR
  - Market needs to develop
  - Cannot exceed 18% variability limit of allowances



## Time Line

- April 2012 File Environmental Compliance Plan, CPCN and Revised Environmental Surcharge  
  
Release A/E to develop RFP's
- October 2012 PSC Approval  
Notice to proceed to vendors
- January 2013 Vendor procurement begins
- July 2013 Construction begins
- January 2015 Wilson FGD in service