





# Clean Air Transport Rule (Proposed)

CATR



# Clean Air Transport Rule

- Replaces the current Clean Air Interstate Rule (CAIR) program that was overturned by the D.C. Circuit Court of Appeals in 2008.
- Will require reductions in SO<sub>2</sub> and NO<sub>x</sub> in 31 States and the District of Columbia.
- SO<sub>2</sub> emissions from the affected states and the District of Columbia will be reduced overall by 71% over 2005 levels.
- NO<sub>x</sub> emission from the affected states and the District of Columbia will be reduced overall by 52% over 2005 levels.



# CATR Regulatory Options

- EPA's Preferred Approach
  - ❖ Set a pollution budget for each of the 31 states and the District of Columbia.
  - ❖ Limited interstate trading among power plants.



# CATR Regulatory Options

- EPA's first alternative
  - ❖ Set a pollution budget for each of the 31 states and the District of Columbia.
  - ❖ Trading limited to power plants within the state.



# CATR Regulatory Options

- EPA's second alternative
  - ❖ Set a pollution budget for each state.
  - ❖ Specify the allowable emission limit for each power plant.
  - ❖ Allow for some averaging.



# Impact to Big Rivers Electric Corp.

## ■ EPA's Preferred Approach

- ❖ System wide SO<sub>2</sub> reduction of 8% by 2012.
- ❖ System wide SO<sub>2</sub> reduction of an additional 4% by 2014.
- ❖ System wide NO<sub>x</sub> annual reduction of 16% by 2012.
- ❖ System wide NO<sub>x</sub> ozone season reduction of 12% by 2012.
- ❖ Limited interstate trading may reduce the cost of compliance.





# EPA Transport Rule Allocations Big Rivers Electric Corp.

Transport Rule Allocations and Projected Reductions				
	Allocation Tons			
Year	2012	2014	2012	2012
Facility	SO2	SO2	Annual NOx	Ozone Season NOx
HMP&L Unit 1	1,647.0	959.0	293.0	114.0
HMP&L Unit 2	2,750.0	997.0	305.0	118.0
Coleman Unit 1	624.0	1,569.0	1,646.0	704.0
Coleman Unit 2	854.0	1,569.0	1,671.0	715.0
Coleman Unit 3	1,003.0	1,621.0	1,713.0	733.0
Green Unit 1	1,774.0	1,018.0	1,530.0	595.0
Green Unit 2	1,352.0	1,027.0	1,505.0	585.0
Reid Unit 1	1,136.0	1,872.0	734.0	284.0
Reid Gas Turbine	0.0	0.0	0.0	0.0
Wilson	8,195.0	7,866.0	697.0	305.0
<b>Total Allocation</b>	<b>19,335.0</b>	<b>18,498.0</b>	<b>10,094.0</b>	<b>4,153.0</b>
<b>2009 Emissions</b>	<b>19,099.0</b>	<b>19,099.0</b>	<b>10,874.0</b>	<b>4,308.0</b>
<b>2009 Emissions + 10%</b>	<b>21,008.9</b>	<b>21,008.9</b>	<b>11,961.4</b>	<b>4,738.8</b>
<b>Reductions Needed</b>	<b>8%</b>	<b>12%</b>	<b>16%</b>	<b>12%</b>



# Impact to Big Rivers Electric Corp.

## ■ EPA's first alternative

- ❖ Will not likely affect the overall SO<sub>2</sub> and NO<sub>x</sub> reduction for the system beyond EPA's preferred alternative.
- ❖ May affect the cost of compliance based upon the ability to offset emission through other utilities within the state.



# Impact to Big Rivers Electric Corp.

- EPA's second alternative
  - ❖ Will not likely affect the overall SO<sub>2</sub> and NOx reduction for the system beyond EPA's preferred alternative.
  - ❖ Averaging within the system may affect the overall cost of compliance.



# Conclusion

- The time to achieve compliance is limited.
- Alternate fuel such as Natural Gas will need to be considered to meet compliance.
- Equipment additions such as SCR's may be difficult to design, purchase and install by 2012.
- Increasing SO<sub>2</sub> removal efficiency with existing scrubbers may be difficult achieve.
- Questionable data used by EPA.
- Additional NOx reductions are likely for 2014.
- Thanks to Steve Noland.

